



# SPILL

The Wreck of the *Exxon Valdez*

Appendix N



**ARLIS**

Alaska Resources  
Library & Information Services  
Anchorage, Alaska



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# SPILL

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Appendix N



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APPENDIX N  
T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

**T/V EXXON VALDEZ OIL SPILL CHRONOLOGY**

**MARCH 23, 1989 - MAY 2, 1989**

**DAY MINUS-ONE through DAY FORTY**

**STATE OF ALASKA  
ALASKA OIL SPILL COMMISSION**

**CECEILE KAY RICHTER  
Anchorage, Alaska**

**February 1990**

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

MARCH 23, 1989 - MAY 2, 1989  
DAY MINUS-ONE through DAY FORTY

## *Preface*

The Alaska State Legislature charged the Alaska Oil Spill Commission, in part, with gathering information relating to the series of events leading up to the EXXON VALDEZ oil discharge on March 24, 1989, and the ensuing efforts to contain and clean up the oil. This chronology of the Tanker Vessel (T/V) EXXON VALDEZ oil spill is one of the ways that the Commission has responded to the task of information gathering. It was prepared for the Commission under a personal services contract by Ceceile Kay Richter, a self-employed researcher and writer living in Anchorage, Alaska.

The chronology begins on March 23, 1989, *Spill Day Minus-One*, the 24-hour period before the grounding of the T/V EXXON VALDEZ. It ends with May 2, *Spill Day Forty*. At that time, the U.S. Coast Guard (USCG), coordinator of the spill response, had just instructed agencies on how cleanup priorities would be assigned. Meanwhile, the agencies were evaluating Exxon Shipping Company's shoreline-cleanup proposal, a May 1 revision of its April 15 plan.

The President of the United States received a chronology of the first 34 days of the spill response in *The Exxon Valdez Oil Spill, a Report to the President*, from Samuel K. Skinner, secretary, Department of Transportation, and William K. Reilly, administrator, Environmental Protection Agency, as prepared by The National Response Team (NRT), May 1989. The chronology for the President, while an admirable document, was drawn exclusively from *USCG Pollution Reports (POLREPS)*.

According to the discussion of the spill response in the main body of the *Report to the President* (hereafter, the NRT Report), the State of Alaska's response participation began when the spill was reported. An Alaska Department of Environmental Conservation (ADEC) official went to the scene with the first USCG investigators. ADEC "was an integral part of the contingency planning process before the incident . . . and subsequent management organizations in the early stages of the response effort. It did, however, assume a role largely independent of the federal response organization as the cleanup proceeded."

The NRT Report devoted a total of two paragraphs, one-quarter of a page, to the State of Alaska response. It devoted about the equivalent of a page each to Alyeska Pipeline Service Company and Exxon Shipping Company. The U.S. National Oceanic and Atmospheric Administration (USNOAA) got about the same coverage as the state, the U.S. Environmental Protection Agency (USEPA) got only a fleeting mention.

The Alaska Oil Spill Commission took note that these agencies, as well as others not mentioned or mentioned only sparingly in the NRT Report, were all significant actors, either in the events leading up to the spill or during the course of the oil discharge or its containment or cleanup or the monitoring of the same. Yet, nothing the Commission had seen interrelated the activities and observations of these players. It was as though a good deal of the daily story was missing. Even with respect to the activities and observations of the USCG Federal On-Scene Coordinator, it appeared there was information in the USCG POLREPS which would contribute to the telling of the story for the State of Alaska that was not considered by the NRT as relative to its mission.

To bridge this gap, the Commission selected the format of the chronology as the most effective way to describe the simultaneous activities and observations of this multitude of parties to the events surrounding and following the grounding of the T/V EXXON VALDEZ without imposing the Commission's own point of view. Accordingly, this chronology is not an analytical document. It exists to provide glimpses in time and to allow the events and actions to speak for themselves.

The ensuing chronology was derived, deliberately, almost exclusively from written sources which are in the public domain. It sought to avoid after-the-fact recollections, except those which were documented in written form. Accordingly, in only a very few instances was a resource individual called upon to supplement an item or to clarify a detail. There was no great in-depth or original research. There were no secret sources. The Commission's contractor was not the arbiter of fact. Information from a single source was accepted without verification. If information from a source was on point, it was used without consideration for its accuracy or whether it conflicted with information from other sources.

The work of the compiler of this chronology, besides entering and formatting existing chronologies, was in collecting and then scaling down extensive reports from a number of agencies and individuals concerning what they did, what they heard, and what they saw. In addition, it was organizing this information in a coherent and unified document. What she found was that sometimes it took a lot of culling and many snippets to get any sense of a single event.

The chronology in the NRT Report forms the backbone of the Commission's chronology. It was entered intact except for some grammatical standardization. Three other chronologies were entered similarly in full, adding to the skeleton. These were ADEC's for March 24, Alyeska's for March 24, and a group of chronologies from Exxon for the period March 24-April 12. The Commission's contractor also endeavored to utilize as fully as possible the narrative and tables which were with Exxon's set of chronologies.

The Commission's chronology was then fleshed out by drawing from the daily reports of ADEC, the Alaska Division of Emergency Services, the U.S. Fish and Wildlife Service, USNOAA, and the *Anchorage Daily News*, as well as the full-length *USCG POLREPS* for the time-period covered. This input was supplemented with information derived from the National Transportation Safety Board (NTSB) investigation of the accident involving the grounding of the EXXON VALDEZ; chronologies of the USEPA, the U.S. National Park Service, the Alaska Department of Fish and Game, and the Prince William Sound Conservation Alliance; summaries of Alaska Regional Response Team teleconferences for three weeks; press releases of the Governor's Office; miscellaneous materials from other agencies including the U.S. Department of Interior, U.S. Forest Service, U.S. Navy, Alaska National Guard, and City of Valdez; materials generated by the Commission; and information in a variety of independent publications. All of these are accounted for in the *Guide to the Chronology's Use of Sources*, which follows.

The Commission is aware that the figure constructed is incomplete, that gaps exist in the information. Some topics were treated less fully than the compiler of this chronology or the Commission would have liked because supplemental information wasn't readily available. Given time constraints, the contractor did not pursue information if the agency required a written *Freedom of Information Act* request. This affected access to reports generated by the U.S. Forest Service in the initial week of the response and a USCG chronology, for example. Certain documents of the state and particular records in the oil spill history of the U.S. Park Service were considered litigation sensitive by those entities and not reviewable when the contractor made her requests.

Some agencies whose roles were supportive but who were not directly involved in oil-containment and cleanup efforts were not asked to contribute. These included the Federal Aviation Administration, which provided air traffic controllers; the National Marine Fisheries Service, whose concern was limited to effects; and the Alaska Department of Natural Resources, whose primary role was permitting. One agency whose work may have been relevant but wasn't contacted was the National Science Foundation (NSF) because this wasn't realized in time. The contractor would like to know what the NSF did and what it provided in the way of short-term equipment on scene that apparently cost more than \$2 million to demobilize and clean.

As this chronology went to press, the contractor learned of two resources in the Commission's files which she did not have time to utilize and would like to recommended them to augment her work. The first is "Simulation Analysis of the Exxon Valdez Grounding in Prince William Sound," prepared by Wei-Yuan Hwang, Ph.D., of the U.S. Merchant Marine Academy National Maritime Research Center, Kings Point, N.Y., in December 1989. The research appears similar to that conducted by a source (unidentified) for the State of Alaska in conjunction with its "Proposed Probable Cause, Findings and Recommendations"

to the NTSB in July 1989. In both, empirical data from the ship's various recorders was used to establish 0007 on March 24, 1989, as the time for the initial impact of the T/V EXXON VALDEZ. The other resource is a file of abstracts prepared by the U.S. General Accounting Office (USGAO) of two months of newspaper articles on the grounding and its aftermath. This is file 0047 in the Commission's archives. (Unfortunately, the key to which these articles was coded was not included with the abstracts.) The USGAO's report of its own investigation of the grounding and response efforts, which will likely include another chronology, was still awaited as this publication went to press and should not be overlooked in follow-up research.

*Spill Day Forty*, the last day of the Commission's chronology, was not a day of milestones nor was it a divider between phases of the response. Activities to mechanically recover oil from the water, while winding down, continued into June or later. The USCG and Exxon were still running separate on-the-water operations and clashes between these parties were observed in future *POLREPs*. Exxon's shoreline cleanup plan wasn't approved by the USCG's Federal On-Scene Coordinator until May 9, and then that was with reservations. Waste management was not yet resolved; throughout May the USCG observed that storage and disposal of oily waste and other solid waste continued to be problems.

Alaskans were not happy with Exxon's response, something the governor let the company know by letter of May 26. Fisheries impacts, while anticipated, had not yet been fully realized. In mid-May, a number of salmon fisheries were closed and they did not open for the 1989 season; in June, much of Prince William Sound was closed to subsistence fishing; and in June and July, as well as August, more commercial salmon fisheries were closed including, on August 15, the commercial salmon season in the Lower Cook Inlet.

*Spill Day Forty* was yet another day on which the unexpected (but not unanticipated) shock of March 24 still reverberated. However, it was also a day on which much that was ahead in the oil spill response was routine and could be accurately predicted. Few, if any, surprises remained. With respect to this chronology, it was also the last day that the Commission's contractor could incorporate, given the voluminous amount of material to condense for each day's report, and still meet the publication date (and that was just barely!).

Some have likened the response to the T/V EXXON VALDEZ oil spill to fighting a war. To use this analogy, on *Spill Day Forty* the leading flank of the enemy (i.e., the discharged EXXON VALDEZ cargo) was, according to ADEC, 360 miles southwest of the spill site and covered an area of 3,311 square miles. In excess of 500 miles of shoreline had been impacted since March 24. There were two main theaters in the war, Prince William Sound and Western Alaska. In Western Alaska there were at least three fronts: Seward, Homer, and Kodiak. Within both theaters, the enemy occupied a variety of turfs: state-owned, federally owned, Native-corporation owned, community-owned, and privately

owned. Battles were being waged in widely separated places far from supply lines. Each theater, and to an extent each front and battlefield, was supported by on-the-water operations, air operations, and on-shore operations. The Coast Guard, Exxon, and, for a while, the state, commanded their own navies and air forces. Exxon commanded armies and locally organized militias fought on both sea and land. The response forces of the invaded included commanders, headquarters and front-line staff, dedicated and not-so-dedicated battle troops, planners, forecasters, medics treating the injured and dying, defense suppliers, residents of occupied or threatened territories, volunteers, observers, and an abundance of dedicated lower-level bureaucrats.

It is hoped that this chronology will help you identify, sort through, and interrelate the various players and elements in this war. Perhaps it will fill in some gaps in your information and contribute to your own perspective. Perhaps it will prompt further study. Perhaps it will move you to support recommendations of the Commission to help prevent and mitigate future such cataclysms or to pursue other recommendations of your own. Like any war story, the story told here for 41 days has drama, action, conflict, leaders, valiant warriors, villains, and even some comedy. Perhaps however, the romance and redemption are missing.



### *Guide to the Chronology's Use of Time*

The Alaska Oil Spill Commission's 41-day chronology of the T/V EXXON VALDEZ oil spill organizes information according to a 24-hour clock for the day before the spill and for a period of 25 days afterwards. For the remaining 15 days, the chronology organizes information for each day first by topic and then by the clock.

Each segment in the chronology is preceded by an entry in italic capital letters, which references the source or sources of the segment, followed by a colon. The *Guide to the Chronology's Use of Sources*, which is next, provides a key to the abbreviations and symbols used in these source references and identifies the materials consulted.

The clock time of a segment in the chronology is indicated at the beginning of the segment in the left-hand margin of the chronology page. Each chronology segment was held to the smallest amount of time possible. Thus, many events are shown in multiple segments.

Regardless of where the event occurred, the time is given in Alaska local time; that was Alaska Standard Time to April 2 when the change to Alaska Daylight Savings Time occurred. The chronology uses both 2400 and 0000, even though they are the same time: 2400 was used when the information pertained to the day which had just ended, as in a summary of equipment; 0000 was used when the information could have some effect on the day which was about to unfold, as in the on-scene weather or the beginning of an activity.

For any time to have been used with a chronology segment, except for "2400" and "0000," the exact time stated had to have been provided or clearly indicated by the source referenced. The symbol "--" in the time column was used as a substitute for the ditto mark ("). For "--" to be used, the chronology segment with it had to pertain to the exact same event as in the segment with the time and the source had to have either given that exact same time or made it clear in the context that that exact same time was meant.

The symbol "X" was used for times not known. A totally unknown time would have four "X"s, a partially known time would have fewer "X"s. Information of questionable time was slipped into the chronology in a time slot at which the compiler of this chronology thought it most likely that the action occurred, or, unable to do even that, in a time slot which, in her best judgment, was at least subsequent to when the action took place.

There are no chronology segments without either a clock time, a "--," or "Xs."

## *Guide to the Chronology's Use of Sources*

Each segment in the chronology is preceded by an entry in italic capital letters, which references the source or sources of the segment, followed by a colon. The guide below provides a key to the abbreviations and symbols used in these source references and identifies the materials consulted.

In many instances, the source reference for a particular segment is a general reference to one of several publications of the source. There simply was not time for the compiler of this chronology to distinguish between publications of the same source or to keep track of dates or numbers of issues of serial publications. This will be further explained in the annotations below.

At least one copy of every item listed below is included in the Alaska Oil Spill Commission Archives housed at the University of Alaska, Anchorage, Arctic Environmental and Information Data Center (AEIDC) Library. It was anticipated by the compiler of this chronology that the copies of items especially gathered for the chronology would be kept boxed together as the Chronology Working File. Access to the items should also be available through the contractor's sources, as indicated below.

Please note that the spelling of place names in Prince William Sound and the Gulf of the Alaska was determined according to the *United States Coast Pilot, Part 9, Pacific and Arctic Coasts Alaska: Cape Spencer to Beaufort Sea*, by the U.S. Department of Commerce National Oceanic and Atmospheric Administration. The volume is in many libraries, including AEIDC's, and is for sale by the National Ocean Service. When a place was not mentioned in the *U.S. Coast Pilot*, the source for the chronology segment was considered the authority for the place name.

Here is a guide to the symbols and abbreviations used in the references to chronology sources and a description of the materials utilized to compile the *T/V EXXON VALDEZ Oil Spill Chronology*:

- |       |   |
|-------|---|
| "and" | The word "and," when used between two source references, means that the chronology segment was derived by combining information from both sources.  |
| ","   | The comma symbol, when used between two source references, means that each of the sources said the same thing.  |
| "/"   | The slash-mark symbol, when used between two source references, means that the source named first reproduced or interpreted information that originated with the second-named source. The exception is when the slash appears in "T/V" for "Tanker Vessel." |
| "-"   | The hyphen as a separator in a source reference means that the source after the hyphen was somehow connected to the source which is before the hyphen.  |

**ADEC:**

*Alaska Department of Environmental Conservation.*

Generally, ADEC as a source in this chronology refers to several serial publications and press releases from Valdez. ADEC published information on the oil spill response in several formats and began to do so very early on.

The earliest item obtained for this chronology is called "Update Number One on Tanker Spill in Valdez," and was dated at 1030 on March 24. The collection of "Updates" utilized for the chronology continued through April 22; as some dates were missing in this sequence, the compiler of this chronology may not have had the entire set for this time period.

ADEC, Valdez, also published something called "Current Status of the Valdez Oil Spill and Response," a running collection of information tidbits. The collection utilized for the chronology covered dates from March 27 to May 2; again, as some dates were missing, the compiler of this chronology may not have had the full set for this time period.

For the period April 13 through April 30, the compiler also reviewed the ADEC, Valdez, "Daily Report, EXXON VALDEZ Oil Spill." The format of these was fairly standard: general information, cleanup-activity report, science-team report, volunteers, oil spill reconnaissance summaries and maps (not just from ADEC), air operations, vessel-tracking logs, ADEC oil spill-response organizational chart, and issues for resolution or consideration.

Also reviewed by the compiler and used for chronology segments were some occasional press releases, an April 21 table of impacted shoreline, and five maps of oil spill observations especially prepared for the Commission's final report. The latter were obtained from Juneau and not Valdez.

The compiler acknowledges the documentation with the 72-hour chronology in the Prince William Sound Conservation Alliance *Environmental Reader* (see PWSCA below) for making her aware of the "Oil Spill Updates." Several specific requests had to be made to ADEC for these before they were obtained but then the person last reached went out of her way to see that these and other materials were copied for use in this chronology on short notice.

**ADES:**

*Alaska Division of Emergency Services, Alaska Department of Military and Veterans Affairs.*

The chronology reference for March 24 is to the statement of Erv Martin, director of ADES, to the Alaska Oil Spill Commission at its meeting on August 4, 1989 (which is in the Commission's meeting transcripts), and to a conversation between the compiler and Jim Sey, chief of operations of ADES. For March 25 and 26, references are to the logs of Don Drury, the first ADES regional emergency officer sent to Valdez, which are an attachment to the ADES March 30 Valdez "Situation Report."

Beginning with March 27, the reference is most likely to the State Emergency Operations Center (EOC), Valdez, daily "Situation Reports (SITREPS)," which ADES published. Besides summarizing activities of all state agencies in the EOC, the "SITREPS" variously included attachments from other state and federal agencies, EOC Seward "Situation Reports," community and Multi-Agency Group spill-response reports (referenced in this chronology as ADES for convenience), declarations of the Governor (referenced as GOV'S OFFICE), USCG operations reports and press releases (referenced as USCG), and Alaska Department of Environment Conservation reports (referenced as ADEC). The Valdez "Situation Reports" were reviewed through May 2, 1989.

The reference *ADES* may also apply to scattered reports on the oil spill communications system, some miscellaneous *ADES* correspondence or releases, and some releases on the Alaska National Guard prepared by the Alaska Department of Military and Veterans Affairs. Beginning April 20, 1989, the State Joint Public Information Office at Valdez published for the Valdez EOC a daily newsletter called "Soundings," and any information taken from those would have also been attributed to *ADES*.

*ADFG:* *Alaska Department of Fish and Game.*

Information referenced *ADFG*, except that which related to fisheries closures, came from the eight-week oil spill chronology in the department's magazine, *Alaska Fish and Game*, Vol. 21, No. 4, July-August 1989. Information on fisheries closures was derived from a bulletin on commercial and subsistence fisheries impacted through October 15, 1989, from the *ADFG* Division of Commercial Fisheries, Juneau.

*ADN:* *Anchorage Daily News, Anchorage, Alaska.*

Chronology segments so referenced were drawn from clippings for the period March 25, 1989 - May 19, 1989.

*ADN/VTC RADIOPHONE:* *Anchorage Daily News from the U.S. Coast Guard Marine Safety Office, Valdez, Vessel Traffic Center radiophone.*

This citation applies to *ADN*'s release of text from radiophone conversations on March 24 between the *EXXON VALDEZ* and the USCG VTC, Valdez, after the vessel ran aground. The newspaper reported on tapes obtained under a *Freedom of Information Act* request in its edition of April 25, 1989. Punctuation may have been added or changed by the chronology compiler.

*ALYESKA:* *Alyeska Pipeline Service Company, Anchorage, Alaska.*

The reference is to the "Twenty-Four Hour Chronology of Events Following the Grounding of the *EXXON VALDEZ*," Anchorage, September 1989, a manuscript prepared for the Alaska Oil Spill Commission. The full document includes a glossary of terms and names and a list of Alyeska's marine spill-response equipment and contract vessels which assisted the initial response. While labeled a 24-hour chronology, the cover page contains the dates March 24, 1989, through March 26, 1989. Harry G. Brelsford, an attorney to Alyeska, in a letter to the Commission, Nov. 10, 1989, confirmed that the cover page was in error and that this was the complete chronology prepared by the company. The Alyeska chronology was entered intact in this chronology except that some minor changes were made for grammatical consistency with the rest of the chronology.

Mr. Brelsford's letter of November 10 also clarified and expanded some information in the Alyeska chronology and the reference *Alyeska* is inclusive of his comments.

*ALYESKA/NTSB:* *Alyeska Pipeline Service Company utilizing information before the National Transportation Safety Board.*

The reference is to "Alyeska Pipeline Service Company's Comments and Proposed Findings" for consideration by the NTSB *In re the Matter of the Investigation of the Accident Involving the Grounding of the EXXON VALDEZ, March 24, 1989*, NTSB Docket No. DCA 89 MM 040, ca. July 1989. The Alyeska submission was its interpretation of the evidence before the NTSB at that time. (This document, while part of the NTSB

EXXON VALDEZ docket, is not an exhibit to the NTSB hearings referenced at NTSB below.)

**ALYESKA-POLASEK:** *Alyeska Pipeline Service Company by Theo L. Polasek, vice president, operations.*

The reference is to Mr. Polasek's testimony before the Coast Guard and Navigation Subcommittee of the Merchant Marine and Fisheries Committee, U.S. House of Representatives, at Cordova, Alaska. Aug. 10, 1989.

**AMT GATE LOG:** *Alyeska Pipeline Terminal Security Gate Register/Log.*

Photocopy of original page from the log is NTSB Exhibit No. XXXX. (See NTSB below.)

**AOSC NOTE:** *Alaska Oil Spill Commission Note.*

Clarifying statements and supplemental information for readers of this chronology made on behalf of the Commission by the compiler of this chronology were inserted into the text as *AOSC NOTES*. A note reflecting directly on a chronology passage would appear just below that passage as part of the same segment in the chronology. A note which reflects on a topic where there is more than one segment to the chronology at that time slot would appear as a separate chronology entry.

**AOSC/CDFU:** *Alaska Oil Spill Commission from Cordova District Fisherman United.*

The reference is to a statement from Marilyn Leond, executive director of Cordova District Fishermen United, to the Commission at its meeting on June 28, 1989, which is in the Commission's transcript of the meeting. The compiler adjusted Ms. Leond's recollection of dates to coincide with her recollection of the weather.

**AV WEEK:** *Aviation Week and Space Technology.*

The reference is to an article by David Hughes, "Air Operations are Critical to Alaska Oil Spill Cleanup," in the issue of April 10, 1989.

**CDFU:** *Cordova District Fishermen United.*

The reference is to testimony by Michele Hahn O'Leary, April 19, before the U.S. Senate Committee on the Environment and Public Works, Washington, D.C. The information in the chronology segment is based on excerpts of her remarks in the "Cordova Fact Sheet, Current Oil Spill Recovery Information," City of Cordova, Vol. 1, No. 14, April 28, 1989, which was appended to the State Emergency Operations Center, Valdez, "Situation Report," published by the Alaska Division of Emergency Services for April 28, 1989. (See ADES above.)

**CFMC:** *Center for Marine Conservation, Washington, D.C.*

Refers to *The Exxon Valdez Oil Spill: A Management Analysis*, by Richard Townsend and Burr Heneman, CFMC, September 1989. Information for the Commission's chronology was derived from the text as well as the cleanup chronology at Appendix B.

In the volume, CFMC described itself as a nonprofit membership organization dedicated to protecting marine wildlife and their habitats and to conserving coastal and marine resources. According to the volume, the

authors visited much of the area affected by the spill from April 14 through April 29, 1989.

**EXXON:**

*Exxon Shipping Company.*

Refers to "Chronology of Exxon's Response to the EXXON VALDEZ Incident," a manuscript submitted to the Commission in September 1989. It contains a narrative overview; chronology of Exxon response and initial mobilization of March 24, 1989; narrative and tables of building of personnel and equipment, deployment of booms and skimmers, and oil recovered from the water, March 24-April 12, 1989; narrative and chronology of EXXON VALDEZ lightering and salvage, March 24-April 5, 1989; narrative and chronology of dispersants and burning, March 24-March 29, 1989; narrative of environmental response, March 24-May 20, 1989; and a glossary of names.

The Exxon chronology sections were entered in full in the Commission's chronology except for some minor changes for consistency of style and grammatical standardization. Additionally, the compiler included as much as could be extracted from narrative sections and tables with the exception of the descriptions of environmental studies.

Please note that this chronology appears to supercede the Exxon chronology included as an exhibit to the NTSB hearings. (See NTSB below.)

**EXXON/NTSB:**

*Exxon Shipping Company utilizing information before the National Transportation Safety Board.*

The reference is to "Exxon Shipping Company Proposed Findings of Fact, Conclusions and Recommendations" to the NTSB *In re the Matter of the Investigation of the Accident Involving the Grounding of the EXXON VALDEZ*, March 24, 1989, NTSB Docket No. DCA 89 MM 040, ca. July 1989. The Exxon submission was its interpretation of the evidence before the NTSB at that time. (This document, while part of the NTSB EXXON VALDEZ docket, is not an exhibit to the NTSB hearings referenced at NTSB below.)

**FDNM:**

*Fairbanks Daily News Miner, Fairbanks, Alaska.*

The governor learned of the EXXON VALDEZ oil spill during an 8:00-8:30 a.m. interview March 24 with Sam Bishop of the *FDNM*. To fill in the rest of that story and to learn more about the early coverage of the spill, the *FDNM* was reviewed for the period March 24-31.

**GOV'S OFFICE:**

*Alaska Governor Steve Cowper's Office.*

The compiler of this chronology had one conversation with the governor's press secretary, Dave Ramseur, to talk about how the governor learned of the oil spill. Otherwise, chronology entries were drawn from Governor's Office press releases. The first of these releases obtained was dated March 26, 1989, "Cowper declares oil spill an emergency disaster." The compiler of this chronology collected her set using the book at the Governor's Office in Anchorage. That book did have some gaps so it is possible not all the oil spill-related releases in the time period of this chronology were seen.

**HORTON:**

*Tom Horton.*

Refers to an article by Horton, "Paradise Lost," in *Rolling Stone*, Dec. 14-28, 1989. Horton is no stranger to life on the water, growing up as he did near Chesapeake Bay. Though the compiler of this chronology was not familiar with Horton, she was impressed by his writing ability and the completeness of his research.

**HW PRETRIAL-:** *Capt. Joseph Hazelwood Pretrial Proceedings, State of Alaska.*

This reference is to the first two days of the pretrial omnibus hearing. Nov. 27 and 28, 1989, in the criminal cases of the State of Alaska vs. Joseph Hazelwood (captain of the T/V EXXON VALDEZ when it ran aground on March 24, 1989), Cases 3AN-S89-7117 and 7218, State of Alaska Superior Court, Third Judicial District at Anchorage.

The compiler of this chronology did not have access to transcripts but instead took her information from the daily logs kept by the court clerk on duty at the hearings. The notes were complete enough so that speculation was not required to understand them.

The name which follows the hyphen in the source reference is the name of the witness from whose testimony the information in the chronology was taken. The witnesses for whom the clerk's notes were consulted (all of whom were on the scene or in the vicinity the first day of the oil spill) were:

**DELOZIER** (Mark J. Delozier, chief warrant officer 3, USCG; then chief of the Marine Safety Department, Marine Safety Office, Valdez);

**DOHM** (Capt. Eric S. Dohm, then ship's master of the T/V CHEVRON CALIFORNIA, which was approaching Hinchinbrook Entrance to Prince William Sound when the EXXON VALDEZ went aground);

**FOX** (Michael J. Fox, then Alaska State trooper in Valdez with the Alaska Department of Fish and Game);

**LAWN** (Daniel Joseph Lawn, then Valdez field officer, Alaska Department of Environmental Conservation);

**McCALL** (Steven McCall, commander, United States Coast Guard; then chief of the Marine Safety Office, Captain of the Port of Valdez, and Federal On-Scene Coordinator for the spill response efforts);

The exception to those on scene, whose statements were also utilized, was:

**STATE** (Refers to the opening remarks by Bob Linton, assistant district attorney for the State of Alaska).

**JC:** *Journal of Commerce.*

The reference is to an article by Dave Higdon, "Morale drops at Safety Board," which discussed the status of the two National Transportation Safety Board members most involved in the EXXON VALDEZ inquiry. The article from the *Journal of Commerce* was reprinted in the *Anchorage Times*, ca. May 16, 1989, coinciding with the start of the NTSB hearings in Anchorage.

**McCLINTOCK:** *Sharon McClintock.*

The reference is primarily to McClintock's "Oiled Communities Response Investigation Report," to the Commission, Nov. 30, 1989. The report is included in another volume of the published appendices to the Commission's final report. With respect to Seldovia, McClintock also provided the compiler of this chronology with her summary of Oct. 24, 1989, on Seldovia's response, along with the first page of Seldovia's oil recovery plan of April 21, 1989. These were also utilized for the chronology.



**NAVSEA(SUPSALV):** *Supervisor of Salvage and Diving, Naval Sea Systems Command, Department of the Navy, Washington, D.C.*

Chronology segments so referenced were derived from a letter to the Commission, Dec. 15, 1989, from Capt. C.A. Bartholomew, director of ocean engineering, SUPSALV, and an attachment to that letter detailing the major types, quantities, and location of SUPSALV's spill response equipment.

**NRT/USCG:** *National Response Team from United States Coast Guard Pollution Reports.*

Refers to "Appendix A: Chronology (Derived from U.S. Coast Guard Pollution Reports)." in *The EXXON VALDEZ Oil Spill, A Report to the President*, from Samuel K. Skinner, secretary, Department of Transportation, and William K. Reilly, administrator, Environmental Protection Agency, as prepared by The National Response Team, Washington, D.C., May 1989. Additionally, the Commission's chronology herein incorporated information in "Appendix C, Glossary for Key Equipment on Scene."

The Commission's copy did not have a U.S. Government Printing Office identifier. While several copies of the report are in the Commission's archives, the compiler of this chronology thinks it would be very unusual for the publication not to be available from the GPO and in Federal Government Depository Libraries.

**NTSB:** *National Transportation Safety Board, Washington, D.C.*

Chronology segments marked with NTSB as the first word of the source were distilled from exhibits which formed part of the official record of the NTSB proceedings at Anchorage, Alaska, May 16-20, 1989, *In re the Matter of the Investigation of the Accident Involving the Grounding of the EXXON VALDEZ, March 24, 1989*, Docket Number DCA 89 MM 040. The exception with this format is "Dickenson," which was from the transcript of the first day of the hearings.

**NTSB-DICKENSON:** *National Transportation Safety Board by Lemoine V. Dickenson, NTSB member.*

The reference is to the opening statement of Dickenson as chair of the the NTSB hearings in Anchorage, May 16, 1989. (See NTSB above.)

**NTSB FACTUAL REPORT-HUMAN PERFORMANCE:** *Human Performance Factual Report, NTSB Bureau of Technology, April 27, 1989.*  
Exhibit No. 2B. (See NTSB above.)

**NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE:** *"Initial Response Phase - Factual Report, Contingency Response Plans," NTSB Marine Accident Division, April 22, 1989.*  
Exhibit No. 2D. (See NTSB above.)

**NTSB FACTUAL REPORT-OPERATIONS:** *"Operational Factual Report," NTSB Marine Accident Division, April 19, 1989.*  
Exhibit No. 2A. (See NTSB above.)

**NTSB FACTUAL REPORT-TOXICOLOGY:** *"Toxicology Factual Report," NTSB Bureau of Technology, April 25, 1989.*  
Exhibit No. 2F. (See NTSB above.)



**NTSB FACTUAL REPORT-VESSEL TRAFFIC SERVICE:** *"Vessel Traffic Service Factual Report, Prince William Sound Vessel Traffic Service," NTSB Marine Accident Division, April 25, 1989.*  
Exhibit No. 2C. (See NTSB above.)

**NTSB INTERVIEW-SHIER:** *"NTSB Interview Summary, Alyeska Marine Terminal Manager, Mr. L. Shier," Lawrence D. Shier interview of March 31, 1989.*  
Exhibit No. 6P. (See NTSB above.)

**NY TIMES/NTSB:** *New York Times concerning National Transportation Safety Board.*  
The reference is to an article of Monday, May 22, 1989, "Elements of Tanker Disaster: Drinking, Fatigue, Complacency," dateline Anchorage, May 19, 1989, reporting on the NTSB hearings in Anchorage at that time.

**O'DONOGHUE:** *Brian O'Donoghue.*  
The reference is to O'Donoghue's *Black Tides, the Alaska Oil Spill*, Anchorage: Alaska Natural History Association, 1989. O'Donoghue was a reporter from the *FDNM* who covered the EXXON VALDEZ spill response. He was on scene observing the spill from a small plane before Alyeska's response equipment reached the stranded tanker.

**PWSCA:** *Prince William Sound Conservation Alliance, Valdez, Alaska.*  
Refers to information in either "The First 72 Hours: A Chronology," or a "Chronology of Events Involving Use of Dispersants to Control Floating Oil in the T/V EXXON VALDEZ Oil Spill," which are both included in *Prince William Sound Environmental Reader: 1989 - T/V EXXON VALDEZ Oil Spill*, by PWSCA, Valdez, May 1989.

**SIMS:** *Grant Sims.*  
The reference is to an article by Sims, "A Clot in the Heart of the Earth" in *Outside*, June 1989. Sims was identified as a journalism teacher at the University of Alaska, Fairbanks.

**STATE/ADEC:** *State of Alaska from the Alaska Department of Environmental Conservation.*  
As best as the compiler of this chronology can piece the story together, Preston Thorgrimson, the state's private law firm in its civil case in the matter of the EXXON VALDEZ, relying on information obtained variously from ADEC, prepared a "Chronology of First 24-Hours of State Response Activities," a document just over six pages. This was then sent to ADEC for comment and, based on telephone calls to the agency from the compiler of this chronology, someone, not knowing it was a draft, sent it to her in late November. The law firm, in the meantime, had not received feedback from ADEC, so the document never progressed to what would be called a final State of Alaska or ADEC chronology. Whether the chronology ever made it to final form was not known to the compiler of this chronology at publication date. The draft is in the chronology's work file.

**STATE GRAPH/NTSB:** *State of Alaska graph utilizing information before the National Transportation Safety Board.*  
The reference is to a graph, "Appendix D, EXXON VALDEZ Crew Work/Rest Periods, March 23, 1989," in "Proposed Probable Cause, Findings

and Recommendations of the State of Alaska" to the NTSB. (See STATE/NTSB below.)

**STATE/NTSB:** *State of Alaska utilizing information before the National Transportation Safety Board.*

Refers to "Proposed Probable Cause, Findings and Recommendations of the State of Alaska" to the NTSB *In re the Matter of the Investigation of the Accident Involving the Grounding of the EXXON VALDEZ, March 24, 1989*, NTSB Docket No. DCA 89 MM 040. By Robert E. LeResche, Oil Spill Coordinator, State of Alaska, Juneau, Alaska, July 17, 1989. (This document, while part of the NTSB EXXON VALDEZ docket, is not an exhibit to the NTSB hearings referenced at NTSB above.)

**T/V EXXON VALDEZ BRIDGE ROUGH LOG:** *Bridge Rough Log (Bell Book).*  
Photocopies of original pages from the "Tally Book, EXXON VALDEZ," NTSB Exhibit No. 4C. (See NTSB above.)

**T/V EXXON VALDEZ DECK LOG:** *M/S EXXON VALDEZ Deck Log Book, March 22, 23, and 24, 1989.*  
Photocopies of original pages from the log book, NTSB Exhibit No. 4B. (See NTSB above.) The labeling is incorrect for the pages are for March 23, 24, and 25, 1989.

**USAF:** *U.S. Air Force.*  
The reference covers tables for any year for Valdez/Pipeline Camp, Alaska, of sunrise and sunset and beginning and end of civil twilight. They are contained in Pamphlet 11 WS 105-3, "Light Data for Alaska Airfields," Department of the Air Force, Headquarters 11th Weather Squadron, Military Air Command, Elmendorf Air Force Base, Alaska. In point of fact, the tables were not compiled by the USAF but were reprints of tables from the Nautical Almanac Office, U.S. Naval Observatory, Washington, D.C. The full pamphlet is part of the AEIDC library collection; only photocopies of the pages utilized in the chronology are in the chronology work file.

**USCG-ARRT:** *U.S. Coast Guard about Alaska Regional Response Team.*  
The reference is to summaries of the Alaska Regional Response Team's teleconferences. The ARRT, as called for in the Alaska Regional Oil and Hazardous Substances Pollution Contingency Plan (RCP), was officially activated at 0800 on March 24, 1989. The team included the USCG, U.S. Environmental Protection Agency, U.S. Department of Interior, U.S. Department of Agriculture, U.S. Department of Commerce, and the Alaska Department of Environmental Conservation (ADEC). The team met by teleconference almost daily during the first three weeks of the spill response. USCG District 17, the USCG's Alaska headquarters office in Juneau, transmitted *USCG Pollution Reports (POLREPS)* and summaries of the ARRT teleconferences to ARRT member agencies via an electronic mail system (E-Mail) maintained by the U.S. National Oceanic and Atmospheric Administration. It appeared to the compiler of this chronology that there were some meetings not summarized on the E-mail.

USCGD17 restricts access to the E-Mail except to member agencies and would not release copies of the ARRT teleconference summaries to the Commission short of a ruling under the *Freedom of Information Act*. However, D17 had no problem with the compiler of this chronology going to Alaska's representative to the ARRT, Lynn Kent, Chief of the Oil and

Hazardous Spill Response Section, for E-Mail transmissions. From a dedicated worker in that office, the Commission was supplied with copies of the summaries of the first three weeks of ARRT teleconferences, a process which was delayed several weeks while the ADEC computer link was out of service.

For those wishing to try this source, all documents pertaining to the EXXON VALDEZ oil spill in the E-Mail are catalogued Incident 34.

*USCG POLREP: U.S. Coast Guard POLREP (Pollution Report).*

The citation is to *POLREPs* for the T/V EXXON VALDEZ crude oil spill issued from COGARD (Coast Guard) MSO (Marine Safety Office) Valdez. The *POLREPs* are numbered consecutively beginning with *POLREP ONE* on March 24, issued at 0546 that morning (1446 "Z" or Greenwich time). All of these *POLREPs* carry two numbers, UNCLAS N16465 and SUBJ MP89002004.

As unclassified documents, the compiler of this chronology has been advised that copies can be obtained from the USCG. However, before knowing that, she was offered (and sent with great promptness) a 30-day set from the files of the Prince William Sound Conversation Alliance, Valdez, for a nominal copying charge.

Another source for copies of these *POLREPs*, also referred to as OSC PWS POLREPS (Federal On-Scene Coordinator Prince William Sound POLREPS) is the electronic-mail system which connects members of the Alaska Regional Response Team. They are catalogued within that system under Incident 34. Although this is how the Commission obtained its set for the second 30 days of the spill, the compiler of this chronology suggests that one seek copies elsewhere. The problem with obtaining *POLREPS* from the E-mail is that they carry only the time they were put on line by USCG District 17 in Juneau, a time that is several hours and possibly days later than when issued by the USCG MSO. Not knowing when a *POLREP* was sent restricts one from putting undated information into perspective.

*USCG VTC VALDEZ LOG: U.S. Coast Guard Vessel Traffic Center, Marine Safety Office, Valdez, Log.*

Refers to "VTC Log Sheets and Preliminary Report by EXXON VALDEZ," photocopies of original pages from the USCG MSO, Valdez, VTC, NTSB Exhibit No. 7E. (See NTSB above.)

*USCG WAK POLREP: U.S. Coast Guard Western Alaska POLREP (Pollution Report).*

Refers to *POLREPs* for the T/V EXXON VALDEZ crude oil spill issued from the USCG Marine Safety Office, Anchorage, whose chief was the Federal On-Scene Coordinator for that part of the spill which crossed from Prince William Sound at Kennedy Entrance to the Gulf of Alaska, otherwise called the Western Alaska Area of the spill.

The compiler of this chronology obtained copies through the office of the Alaska State representative to the Alaska Regional Response Team, Lynn Kent, Chief of the Oil and Hazardous Spill Response Section, in the Alaska Department of Environmental Conservation, Juneau. Her office pulled them off of the ARRT's electronic-mail system. (See *USCG POLREP*, above, for a warning about getting them this way.)

*USCGD17: U.S. Coast Guard District 17 Headquarters Office, Juneau, Alaska.*

The reference is to two telephone conversations in December 1989 between the compiler of this chronology and USCG CDR Dennis D. Rome, who at the time of the EXXON VALDEZ oil spill was chief of Marine Environmental Protection Branch USCGD17. CDR Rome was on scene in Valdez as Assistant Federal On-Scene Coordinator for Operations for the period March 25-April 11 and from April 22 for three weeks. The references in this chronology also include a table from CDR Rome on the new response organization as proposed on March 26, 1989.

*USDOI-OEPR.*

*U.S. Department of Interior, Alaska Office of Environmental Project Review, Anchorage, Alaska.*

The information used in the chronology is from a four-page summary of that office's response activities associated with the T/V EXXON VALDEZ oil spill from March 24-June 15, 1989, supplemented with conversations of the contractor with the two professionals in that office: Paul Gates, Regional Environmental Officer for Alaska, and Pam Bergmann, Regional Environmental Assistant. Gates served as USDOI's Alaska Regional Response Team representative and Bergmann established and ran the department's on-scene operations center in Valdez.

*USDOI-NPS:*

*U.S. Department of Interior National Park Service, Alaska Regional Office, Anchorage, Alaska.*

Information so referenced was taken either from "A Chronology of the National Park Service Response to the Prince William Sound Oil Spill (from Daily Briefing Statements)," which covers in narrative form intermittent days for the period March 31-May 30, 1989, or the draft initial chapter, "Chapter 1 - Background and Initial Response," from a pending history of the USNPS's response to the EXXON VALDEZ oil spill. Both documents were prepared by the USNPS Alaska Regional Office.

These were supplemented by a brief telephone conversation with Incident Commander Dave Liebersbach (U.S. Department of Interior Bureau of Land Management Fire Service) as to when he left Seward and by another brief telephone conversation with Dan Hanson at the USNP's Alaska Regional Office who, talking to an unnamed individual then in his office, rounded out the list of names on the Incident Command Team.

Though copies of the two documents just mentioned are in the working file of this chronology, it is suggested that the USNPS be contacted directly for versions more finalized than what the compiler of this chronology reviewed. By that time, also, the Alaska Regional Office may have opened its EXXON VALDEZ Oil Spill History Files which were not available for this chronology.

*USEPA:*

*United States Environmental Protection Agency, Region 10, Seattle, Washington.*

Refers to "Chronology of Events Following the EXXON VALDEZ C Spill (March 24-July 6, 1989)," issued December 1989. Anyone using this chronology who is not familiar with the *NRT Report to the President* (see *NRT/USCG* above) should be warned that the NRT chronology precedes the USEPA chronology each day for the first 34 days of the spill.

*USFS:*

*Forest Service, U.S. Department of Agriculture.*

The reference is to a conversation with John Knorr, district ranger of Glacier Ranger District (Girdwood, AK), Chugach National Forest, the forest district which covers the Prince William Sound area west of the tanker lanes.

- USFWS:** *Fish and Wildlife Service Alaska Regional Office, U.S. Department of Interior, Anchorage, Alaska.*  
Beginning March 27, the USFWS coordinator for the EXXON VALDEZ oil spill response at the Alaska Regional Office in Anchorage began the publication of what were essentially daily summaries of the oil track, status of cleanup efforts, resource impacts, and current USFWS protection and recovery efforts. The contact for these copies in the Alaska Regional Office is the Public Information Office. Copies of an almost complete set for the period Mar. 27-Nov. 1, 1989, made by the compiler of this chronology, are in the chronology working file.
- USNOAA:** *National Oceanic and Atmospheric Administration, U.S. Department of Commerce, Region 10, Seattle, Washington.*  
The Hazardous Materials Response Branch in the USNOAA Region 10 headquarters office in Seattle provided scientific support coordinators and staff to the USCG Federal On-Scene Coordinators in the Valdez and Anchorage Marine Safety Offices. NOAA employees affected received updates on field activities via a computer bulletin board called the NOAA Hotline. The chronology reference applies to excerpts from Hotline Reports on the EXXON Valdez incident for March 24 through April 22, 1989.
- VALDEZ:** *City of Valdez.*  
The reference is to Airport Traffic Records for April 1989 obtained through the City of Valdez.
- VTC RADIOPHONE-T/V CHEVRON CALIFORNIA:** *U.S. Coast Guard Marine Safety Office, Valdez, Vessel Traffic Center, radiophone conversation from the T/V CHEVRON CALIFORNIA.*  
Text of the radiophone conversations was derived from "VTC Radiotelephone Channel 13 Transcript, Transcript for T/V EXXON VALDEZ Grounding," USCG MSO, Valdez, VTC, reproduced as NTSB Exhibit No. 7H. (See NTSB above.) Punctuation may have been added or changed by the compiler of this chronology.
- VTC RADIOPHONE-T/V EXXON VALDEZ:** *U.S. Coast Guard Marine Safety Office, Valdez, Vessel Traffic Center, radiophone conversation from the T/V EXXON VALDEZ.*  
Text of the radiophone conversations was derived from "VTC Radiotelephone Channel 13 Transcript, Transcript for T/V EXXON VALDEZ Grounding," USCG MSO, Valdez, VTC, reproduced as NTSB Exhibit No. 7H. (See NTSB above.) Punctuation may have been added or changed by the compiler of this chronology.
- VTC RADIOPHONE-VTC:** *U.S. Coast Guard Marine Safety Office, Valdez, Vessel Traffic Center, radiophone conversation from the VTC.*  
Text of the radiophone conversations was derived from "VTC Radiotelephone Channel 13 Transcript, Transcript for T/V EXXON VALDEZ Grounding," USCG MSO, Valdez, VTC, reproduced as NTSB Exhibit No. 7H. (See NTSB above.) Punctuation may have been added or changed by the compiler of this chronology.



# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

## RESPONSE COORDINATION THE FIRST FORTY DAYS

March 24 - May 2, 1989

Prepared by Ceceile Kay Richter, Alaska Oil Spill Commission investigator,  
based on the daily chronologies in *T/V EXXON VALDEZ Oil Spill Chronology*.

### Day and Approximate Alaska Local Time

#### Friday, March 24 (Day One)

- 0030 Commanding officer of the U.S. Coast Guard (USCG) Marine Safety Office (MSO) and Captain of the Port (COTP), Valdez, Commander (CDR) Steve McCall, was notified of the grounding of the T/V EXXON VALDEZ by telephone call to his home from the radio watchstander at the MSO's Vessel Traffic Center. As USCG COTP, CDR McCall was the Federal On-Scene Coordinator (FOSC) for an oil spill in Prince William Sound (PWS) under the national Clean Water Act and federal, state, and port oil spill contingency plans.
- 0030 The USCG MSO radio watchstander telephoned the Alyeska Marine Terminal (AMT) and notified the AMT's on-duty marine operations supervisor of the incident. This set in motion Alyeska's state-approved oil spill contingency plan. As Exxon Shipping Company, the spiller, had no plan of its own, Alyeska was in charge of the response.
- 0100 Alyeska notified Dan Lawn, the Alaska Department of Environmental Conservation's (ADEC) oil spill-response official in Valdez, of the tanker grounding. Lawn was the initial state official on-scene and assumed the role of State On-Scene Coordinator (SOSC) until his superior, Bill Lamoreaux, regional supervisor of ADEC's Southcentral Regional Office, Anchorage, arrived in Valdez.
- 1545 ADEC Commissioner Dennis Kelso, the superior to both Lawn and Lamoreaux, arrived Valdez airport.
- 1730 ADEC's Lamoreaux arrived in Valdez and assumed the duties of SOSC.
- 1737 Frank Iarossi, president of Exxon Shipping Company, the spiller, arrived Valdez from Houston, Tex., with five top corporate aides, joining other Exxon officials and consultants who had arrived earlier. Iarossi, with an entourage, went immediately to the AMT and reportedly assumed control over much of the oil spill, taking over the lightering operation, the dispersant discussion, and public relations from Alyeska employees.

#### Saturday, March 25 (Day Two)

- 1200 Exxon Shipping Company officially relieved Alyeska Pipeline Service Company of oil spill cleanup responsibility. Exxon assumed management of the spill response and financial responsibility.
- (It should be noted that, at least on the water, there came to be three response fleets: Exxon's contract fleet of vessels and skimmers, including some U.S. Department of Defense equipment, dubbed the "Exxon Navy"; the Coast Guard's spill

response involving its own vessels as well as Department of Defense vessels; and, beginning March 28, ADEC's hatchery and wild-salmon protection effort, involving ADEC employees, Cordova fishermen with their vessels, Alaska state ferry ships, and Exxon boom, dubbed the "mosquito fleet." By late April, the state's fleet and aircraft had been turned over to Exxon.)

1900 Rear Admiral (RADM) Edward Nelson, Jr., commander of USCG District 17 (USCGD17), headquartered in Juneau, and FOSC CDR McCall's superior, arrived in Valdez to help alleviate pressure on the FOSC. However, under the Clean Water Act, CDR McCall still retained his authority as FOSC.

CDR Dennis D. Rome, chief of the Marine Environmental Protection Branch, USCGD17, arrived with RADM Nelson. CDR Rome was to remain in Valdez to assist FOSC CDR McCall.

#### Sunday, March 26 (Day Five)

1830 Alaska Governor Steve Cowper declared a condition of disaster existed in the vicinity of Valdez. The effect of the declaration was to free up state resources, including disaster funds, to be applied toward the spill cleanup. The state disaster declaration was also a prerequisite before a federal disaster could be declared.

#### Monday, March 27 (Day Five)

XXPM Governor Cowper asked President Bush to declare an emergency for Alaska under provisions of the Stafford Disaster Relief and Emergency Assistance Act. If approved, the governor's request could result in the appointment of a federal official to help coordinate the spill cleanup and advise federal, state, and local governments, and might free federal funds, should they be needed.

#### Tuesday, March 28 (Day Five)

1200 For the previous two days at Operations meetings, a reorganization of the response effort and its leadership was being worked out by USCG RADM Nelson, ADEC Commissioner Kelso, Exxon Shipping Company President Iarossi, and their aides. Now, the new organization which was already in place -- a three-tiered structure -- was formally recognized. At the top was the Steering Committee, a "troika" of Nelson, Kelso, and Iarossi. Beneath them was the Operational Coordinating Committee, at that time said to consist of the USCG, State of Alaska, local fisheries groups, and Exxon. The third tier was the on-scene operational forces.

#### Wednesday, March 29 (Day Six)

0900 An organizational table was out on the new response effort. At the top was the three-member USCG/ADEC/Exxon Steering Committee (USCG RADM Nelson, ADEC Commissioner Kelso, Exxon Shipping Company President Iarossi). In the middle was the Operations Coordinating Committee, consisting of the USCG and federal agencies on the Alaska Regional Response Team (ARRT), ADEC, Alaska Department of Emergency Services (ADES), and local fisheries groups. At the third level was the



on-scene working forces: USCG, State of Alaska, Exxon, and local communities. Exxon was not mentioned in the second tier.

Monday, April 3 (Day Eleven)

XXAM According to the U.S. National Park Service, which had an Incident Command Team in place to prepare for effects of the spill on Kenai Fjords National Park near Seward, Captain (CAPT) Rene Roussel, chief of the USCG MSO, Anchorage, was commanding Seward-based spill response efforts out of Anchorage.

Thursday, April 6 (Day Fourteen)

XXXX USCG Commandant Admiral (ADM) Paul Yost testified to a subcommittee of the U.S. House Merchant Marine and Fisheries Committee in Washington, D.C., that insufficient funds were available for a major federal effort in responding to the spill.

1200 Exxon started to pay for state activities associated with oil spill cleanup and to fund the existing Incident Command Team in Seward and one to be formed in Homer.

XXXX The oil was affecting areas within the Anchorage FOSC jurisdiction. RADM Nelson assumed "overall FOSC responsibility" to facilitate strategic control of the response. CDR McCall and LCDR Reiter were sharing FOSC duties for PWS while CAPT Roussel was FOSC for the Western Alaska area of the spill.

XXXX In Valdez, there were two logistics offices, one for on-the-water work and one for on-shore work. A logistics center, established at Exxon's temporary command headquarters to support on-the-water oil spill cleanup, containment, and other work, was manned by Exxon, ADES, ADEC, USCG, and Cordova District Fishermen United representatives. An office to support state government agencies involved in shore-based activities was set up in the State Emergency Operations center that was managed by ADES and included representatives from many of the state agencies.

Friday, April 7 (Day Fifteen)

XXXX President Bush designated USCG Commandant ADM Yost to be the Federal Coordinating Director for the EXXON VALDEZ oil spill, replacing RADM Edward Nelson, who had directed the initial cleanup efforts in addition to his regular duties as commander, USCGD17, Juneau. RADM Nelson was to stay on in Valdez for several days as ADM Yost's transition director.

As ADM Yost was still in Washington, D.C., nothing changed in Valdez. RADM Nelson continued there as overall FOSC.

XXXX At the direction of President Bush, the U.S. Department of Defense (USDOD) established a Director of Military Support Joint Task Force (JTF) to assist the FOSC in cleanup. A USDOD Assessment Team, to be sent to Valdez, was to determine the best way to apply military support. The JTF began daily oversight meetings in the Pentagon Army Operations Center. In Alaska, the JTF was to be commanded by the head of the Alaska Air Command, USAF Lieutenant General (LT GEN) Thomas McInerney.

XXXX It was about this day that Exxon Shipping Company President Jarossi left Valdez. It is not known whether Commissioner Kelso had also left Valdez, but that would appear to have also happened. The so-called troika of the USCG, ADEC, and Exxon appears to have dismantled, leaving the USCG in charge of response coordination but Exxon in control of the purse strings.

Sunday, April 9 (Day Seventeen)

XXXX The director of the Federal Emergency Management Administration advised the governor that the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) was operating. The NCP already provided the federal coordinator and technical assistance specified in the governor's request, the governor was told.

XXXX USCG VADM Clyde Robbins, Commander Pacific Area, arrived in Valdez under assignment from Federal Coordinating Director ADM Yost (who was still in Washington, D.C.) to assume FOSC duties from CDR Steve McCall. McCall was to return to his duties as commander of the MSO, Valdez.

In the meantime, ADM Yost was not around, but RADM Nelson was still in Valdez.

Monday, April 10 (Day Eighteen)

XXXX ADEC reported that the blank checkbook days were over as Exxon had assumed approval authority for almost all expenditures relating to oil cleanup activities.

XXXX The State EOC explained that its purpose was not cleanup but to deal with short- and long-term needs of the response such as the physical and mental health of disaster members, worker safety, local hire, community needs, public safety, and communications.

Wednesday, April 12 (Day Twenty)

1525 ADM Yost, USCG commandant, arrived at Elmendorf AFB, Anchorage. He returned to Alaska as the President's and Secretary of Transportation's representative to oversee the spill cleanup. He was met and briefed by VADM Robbins and RADM Nelson.

XXXX CDR Conway relieved CDR Rome as Asst. FOSC for PWS.

Thursday, April 13 (Day Twenty-One)

1000 ADM Yost arrived Valdez.

Friday, April 15 (Day Twenty-One)

XXXX ADEC and Exxon reached agreement for Exxon to take over management of local spill cleanup equipment at Seward.

Saturday, April 15 (Day Twenty-Three)

XXXX RADM Nelson departed Valdez to resume his duties as commander of USCGD17, Juneau.

1600 VADM Robbins became FOSC.

Monday, April 17 (Day Twenty-Five)

XXXX Otto Harrison was general manager of Exxon's Valdez operations. How long he had been in that position was not indicated.

1600 CAPT Roussel was designated Assistant FOSC for the spill outside PWS under VADM Robbins. In this change, Roussel lost his designation as "FOSC for the Western Alaska Area of the Spill" for one of "Assistant FOSC for the Spill Outside Prince William Sound."

Tuesday, April 18 (Day Twenty-Six)

1400 ADM Yost departed Valdez for Anchorage, leaving his job in Valdez after five days. VADM Robbins remained as overall FOSC.

XXXX Exxon assumed control of ADEC seiners and other support vessels and logistical support at Northwest Bay from ADEC and was to assume control of the State Ferry Aurora on Wednesday when it left Valdez. Control of cleanup equipment at Sawmill, Eshamy, Main, and Esther Bays was still ADEC's and had not been transferred to Exxon.

Friday, April 21 (Day Twenty-Nine)

XXXX CDR Rome returned as Asst. FOSC for PWS, relieving CDR Conway.

Wednesday, April 26 (Day Thirty-Four)

XXXX Lamoreaux was still State OSC in Valdez. Harrison remained in charge of Exxon's Valdez operations.

Sunday, April 30 (Day Thirty-Eight)

XXXX According to ADES, 454 vessels total were deployed: six tank barges, two support barges, eight berthing vessels, 14 tugs, 11 LCMs, 15 LCA/LCVs, 398 other vessels (20-foot to 195-foot). Enroute were a two berthing vessels, two oil barges, and one sectional barge. There were 47 skimmers deployed, 31 in Prince William Sound, and 16 in the Gulf of Alaska. (The USCG counted skimmers as vessels; it is not clear whether ADES did.)

The USCG fleet consisted of 59 vessels operating recovery or support activities, including 42 skimmers, one skimmer support vessel, six berthing/support

vessels, two boom support vessels, and eight barges. Of Exxon's contract vessels (which were presumably the remainder), 79 were fishing vessels under contract in Western Alaska.

Additionally, 27 total aircraft were deployed.

RESPONSE COORDINATION

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

THURSDAY, MARCH 23, 1989

DAY MINUS-ONE

## Approximate Alaska Local Time

- 0000      *NTSB FACTUAL REPORT-HUMAN PERFORMANCE:* Tanker Vessel (T/V) EXXON VALDEZ had arrived 30 minutes previously at the Alyeska Marine Terminal (AMT) near Valdez, Alaska, to load a cargo of Alaska North Slope (ANS) crude oil.
- 0000-0350      *T/V EXXON VALDEZ DECK LOG:* T/V EXXON VALDEZ was port side No. Five Berth, AMT, Valdez. Able-Bodied Seaman (AB) Harry L. Claar, AB Paul R. Radtke, and watch officer, Third Mate (3rdM) Gregory T. Cousins, had been relieved from watch at 10 before midnight (2350). ABs Robert M. Kagan and Maureen L. Jones were now on watch with watch officer, Second Mate (2ndM) Lloyd G. LeCain, Jr.
- [AOSC NOTE: Members of the third watch were ABs John P. Peacock and Carl Jones and Chief Mate James R. Kunkel.]*
- 0000-0550      *NTSB FACTUAL REPORT-HUMAN PERFORMANCE:* The practice was that the 2nd and 3rd mates each had six hour watches while the EXXON VALDEZ was in port for ballasting, loading, and discharging of cargo. The chief mate oversaw cargo handling operations exclusively at those times and the six-hours-on/six-hours-off watches by the 2nd and 3rd mates provided deck officer coverage in the chief mate's absence.
- 2ndM LeCain said the six-on/six-off watches began at 0000. 2ndM LeCain apparently relieved 3rdM Cousins about 2350 and had watch until 0550.
- [AOSC NOTE: If one accepts the watch changes shown in the EXXON VALDEZ Deck Log as accurate, then this practice of six-hour watches was not in effect on the EXXON VALDEZ on this day in port. The log shows watch changes at the normal four-hour intervals: 0350, 0750, 1150, 1550, 1950. However, the block of entries on the Deck Log between 1150 and 1550 were followed by the initials "LGL" for 2ndM LeCain as were the block of entries on the Deck Log for the following watch period of 1550 to 1950. Yet, however, to an untrained eye, the handwriting appears different in the second block and more like James Kunkel's earlier handwriting.]*
- 0100-0720      *EXXON/NTSB:* 3rdM Cousins slept.
- 0350      *T/V EXXON VALDEZ DECK LOG:* Watch relieved. Alongside No. Five Berth.
- 0350-0750      *T/V EXXON VALDEZ DECK LOG:* ABs Carl Jones and John P. Peacock were on watch aboard the T/V EXXON VALDEZ with watch officer, Chief Mate James R. Kunkel.
- 0400      *ADN:* After being relieved of his watch, 2ndM LeCain went to bed.
- 0505      *T/V EXXON VALDEZ DECK LOG:* Started loading ANS crude.

DAY MINUS-ONE (Thursday, March 23)

0530 *T/V EXXON VALDEZ DECK LOG:* Loading up to full rate of 100,000 barrels an hour.

0550-1150 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE:* Customary in-port watch of 3rdM Cousins.

0750 *T/V EXXON VALDEZ DECK LOG:* Watch relieved. Port side to Berth No. Five. Loading ANS crude. Deck, cargo line-up, and surrounding waters inspected.

0750-1150 *T/V EXXON VALDEZ DECK LOG:* ABs Radtke and Claar were on watch aboard the EXXON VALDEZ with watch officer, 3rdM Cousins.

0800-1330 *STATE GRAPH/NTSB:* 3rdM Cousins attended to cargo operations.

0830 *T/V EXXON VALDEZ DECK LOG:* (first word indistinguishable) reduced rate to 83,000 barrels an hour.

0900 *ADN:* 2ndM LeCain arose from his rest of less than five hours.

XXAM *ADN:* Capt. Joseph J. Hazelwood of the T/V EXXON VALDEZ invited Jerzy B. Glowacki (chief engineer), and Joel A. Roberson (radio officer) to go with him into town.

1059 *AMT GATE LOG:* Hazelwood, Glowacki, and Roberson of the EXXON VALDEZ signed the AMT Security Gate Log to exit the terminal.

-- *NTSB FACTUAL REPORT-HUMAN PERFORMANCE:* Security logbook for the AMT shows the master (i.e., the captain), chief engineer, and radio electronics officer of the T/V EXXON VALDEZ departing the terminal through the gate at this time. They were going ashore while the EXXON VALDEZ loaded cargo. They rode into Valdez with the state-licensed harbor pilot (Capt. William Edward Murphy of the Southwest Alaska Pilots Association) who had conducted the inbound transit of the vessel.

1100 *ADN:* When Captain Hazelwood left the EXXON VALDEZ, he expected the vessel to depart with its cargo at 2200. Glowacki also thought the vessel was to leave at 2200.

1100-1145 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE:* The master, chief engineer, and radio officer of the EXXON VALDEZ stopped at the office of Alaska Maritime Agencies, Inc., Exxon's shipping agent in Valdez. Inside, they conducted routine ship's business in a meeting that lasted about 45 minutes.

1145-1315 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE:* Captain Murphy picked up the master and the two crew members and drove them to a nearby restaurant for lunch. The master and pilot had nonalcoholic beverages with their lunch and the others had beer, according to statements to the National Transportation Safety Board (NTSB) by the two crew members.

XXXX *STATE/NTSB:* The captain had a beer at lunch, according to his interview with the United States Coast Guard (USCG).

1150 *T/V EXXON VALDEZ DECK LOG:* Watch relieved. Continuous loading ANS crude.

1150-1550 *T/V EXXON VALDEZ DECK LOG*: ABs Kagan and M. Jones were on watch aboard the T/V EXXON VALDEZ with watch officer, 2ndM LeCain.

1150-1750 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE*: Customary in-port watch of 2ndM LeCain.

1200-1830 *STATE GRAPH/NTSB*: Chief Mate Kunkel was on watch.

1200-2200 *ADN*: 2ndM LeCain worked the noon to 1600 watch, then worked at various cargo-loading and undocking chores until the ship sailed.

1200 *ADN*: A sailing time of 1900 was posted for the EXXON VALDEZ. At some time later the posting was changed to 2100. Captain Hazelwood was not around for either of these postings.

1200 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE*: 3rdM Cousins went to the engine room to conduct a salinity test, according to what he later reported to a USCG investigating officer.

1315 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE and ADN*: The pilot dropped off the captain, chief engineer, and radio officer at a small shopping center in the middle of town. The three men separated to run personal errands and agreed to meet again at a town bar later in the afternoon. Captain Hazelwood went to a gift shop where he placed an order to have flowers sent to his family for Easter. The radio officer stopped at the grocery store and the engineer walked around town looking for a newspaper.

1330-1630 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE*: 3rdM Cousins retired to his room for a nap.

-- *ADN*: 3rdM Cousins returned to his quarters. For 30 minutes he did some paperwork. After that he took a nap.

-- *STATE/NTSB*: In contradiction of 3rdM Cousin's claim that he was taking a nap, one of the pumpmen placed him as having "pounded the deck" during this time.

1330-1700 *EXXON/NTSB*: 3rdM Cousins slept during this approximate time period. Combined with his sleep from 0100 to 0720, he had almost 10 hours of sleep in the 24 hours immediately preceding the grounding.

1535 *T/V EXXON VALDEZ DECK LOG*: Loading ANS crude increased to 100,000 barrels per hour.

1550 *T/V EXXON VALDEZ DECK LOG*: Watch relieved. Alongside No. Five (berth) loading ANS crude.

1550-1950 *T/V EXXON VALDEZ DECK LOG*: ABs C. Jones and Peacock were on watch aboard the T/V EXXON VALDEZ with watch officer, Chief Mate Kunkel.  
*[AOSC NOTE: As indicated above, the block of entries on the Deck Log for this watch were initialed "LGL" for 2ndM LeCain, although to an untrained eye there appears to be some difference in the handwriting of the entries from 1150-1550 and the entries 1550-1950.]*

DAY MINUS-ONE (Thursday, March 23)

1550-2000 *ADN*: Chief Mate Kunkel stood watch and oversaw the cargo loading.

1600 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE*: Chief Engineer Glowacki arrived alone at the Valdez bar.

1630-1700 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE*: On board the EXXON VALDEZ, 3rdM Cousins ate dinner.

1630-1900 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE*: Chief Engineer Glowacki reported this as the approximate arrival time at the bar of Captain Hazelwood. Radio Electronics Officer Roberson arrived shortly afterwards.  
According to Roberson, the men played darts with local residents and otherwise enjoyed themselves while each purchased one or more rounds of drinks. Roberson said Captain Hazelwood was drinking a "clear" beverage, Glowacki was drinking gin and tonic, and he, personally, drank beer.  
Glowacki told NTSB investigators that he had three gin and tonics, and did not recall how much the master had.

1650 *ADN*: The oil tanker ARCO JUNEAU left the Port of Valdez, starting its outbound journey.

1700-1900 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE*: Aboard the EXXON VALDEZ, 3rdM Cousins relieved Chief Mate Kunkel so Kunkel could have supper. Cousins then worked throughout the topping-off and securing-of-cargo loading operations.

1700-2150 *ADN*: Cousins relieved Kunkel so the chief mate could have supper. This was an hour before Cousin's watch was officially to have begun. After that, Cousins helped finished loading the cargo and helped with the undocking.

1750-2350 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE*: Customary in-port watch of 3rdM Cousins.

1830 *T/V EXXON VALDEZ DECK LOG*: Began topping off.

1830-2100 *STATE GRAPH/NTSB*: Chief Mate Kunkel was doing topping-off checks.

1900 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE*: All ABs secured the deck for sea. According to what 2ndM LeCain later told NTSB investigators, it is likely that 3rdM Cousins also assisted.

1900 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE*: In Valdez, according to Glowacki, the men from the EXXON VALDEZ left the bar and returned to the restaurant where they had previously had lunch. They ordered two pizzas to take back to the ship and then waited next door at an adjacent bar while their order was prepared. Glowacki and Roberson have agreed that each man, including the master, had one alcoholic drink while they waited. Roberson thought Captain Hazelwood's drink probably contained vodka.

1924 *T/V EXXON VALDEZ DECK LOG*: Finished cargo.



-- *NTSB FACTUAL REPORT-OPERATIONS:* Cargo loading on board the T/V EXXON VALDEZ, in progress for a little more than 14 hours, was completed. Chief Mate Kunkel ordered the deck force, consisting of all six ABs, to stow all gear and to secure the decks for sea.

-- *STATE/NTSB:* The ship had taken on 1,263,000 barrels of crude oil for its voyage to Long Beach, California.

1930 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE:* In Valdez, according to Chief Engineer Glowacki, the pizza was ready and the three men called a cab to return to the ship. A fourth person, a man from an ARCO tanker, joined the cab ride to the terminal. The cab driver later told NTSB investigators that no one in this group appeared to be under the influence of alcohol.

-- *ADN:* The three men from the EXXON VALDEZ and a crewman from another tanker, the ARCO INDEPENDENCE, were picked up by a Valdez taxi driver and taken to the AMT across the bay. The taxi driver later said he remembered little about the three Exxon crewmen but recalled that the ARCO seaman was extremely drunk.

-- *AOSC NOTE:* According to a later NTSB interview with the cab driver, it takes about 20 minutes to drive from town to the security gate at the AMT. Waiting time on this trip was not indicated. The time for the cab arriving at AMT terminal is shown on the security log as 2024, which was 54 minutes after the alleged 1930 pick-up.

1948 *T/V EXXON VALDEZ BRIDGE ROUGH LOG:* Gear test.

-- *STATE/NTSB:* 3rdM Cousins performed a test of equipment as required before leaving port and determined everything he tested was in working condition. There is no evidence that any of the machinery, steering, navigation, lighting or other essential shipboard systems was not in operational condition upon the departure of the EXXON VALDEZ from the AMT, Valdez, on March 23, 1989.

1950 *T/V EXXON VALDEZ DECK LOG:* Watch relieved.

-- *T/V EXXON VALDEZ DECK LOG:* ABs Radtke and Claar took over the watch aboard the T/V EXXON VALDEZ with watch officer, 3rdM Cousins.

1950-2020 *AOSC NOTE:* A group of three entries on the Deck Log at 1950, 2008, and 2020 were initialed "JRK" for Chief Mate James Kunkel.

2000 *EXXON/NTSB:* 3rdM Cousins commenced his watch.

2000 *ADN:* The EXXON VALDEZ was loaded and ready to depart. Chief Mate Kunkel was on the bridge at the engine controls. A crew count was conducted. Hazelwood, Glowacki, and Roberson were not on board.

2011 *AMT GATE LOG:* W. Murphy, SW Pilot's, to B-5, EXXON VALDEZ.

2020 *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG:* Pilot aboard.

- *NTSB FACTUAL REPORT-OPERATIONS:* An Alaska state pilot boarded the EXXON VALDEZ. The pilot stopped by the master's quarter to pay his respects, but learned that the master was still ashore. The pilot then proceeded up to the bridge and stood by.
- 2024 *AMT GATE LOG:* Hazelwood, Glowacki, and Roberson, logged in at the Alyeska Security Gate.
- *NTSB FACTUAL REPORT-HUMAN PERFORMANCE:* The security log at the AMT shows this as the time the cab arrived, carrying the master, chief engineer, and radio officer of the EXXON VALDEZ. The men got out of the cab to check in at the office and walked through a metal detector. The men then returned to the cab which drove them down to the EXXON VALDEZ dock without delay. The security guards later told NTSB investigators that they spoke with the men and did not believe anyone arriving at that time was intoxicated.
- [AOSC NOTE: According to the NTSB interview with AMT Manager Lawrence Shier, no foot traffic was allowed on the AMT because in winter the weather was severe and in summer bears got on the terminal. Ship crew members were driven to and from ship berths by taxi or agent's car. Crew members were required to walk through the guard office where they and their bags were checked. Taxis were also searched.]*
- 2024 + *NTSB FACTUAL REPORT-HUMAN PERFORMANCE:* The three men boarded the EXXON VALDEZ by means of a hydraulically operated gangway.
- The ship's agent later told NTSB investigators that she was aboard the vessel in the pilot house when the master arrived and she met with him there to discuss cargo and the ship's route. The agent and the master agreed that they would talk further on the VHF/FM radio to confirm cargo and fuel values after the vessel got underway. (The ship's agent later indicated to the NTSB investigators that the master might have been drinking, due to the fact that his eyes were watery, but said she did not smell alcohol on his breath.)
- Glowacki said that he and Roberson went to the galley with the pizzas and heated them in the microwave oven. But, before they could eat, Roberson said he went directly to the radio room and began his pre-voyage tests and checks. Roberson said that no one in the group which had gone ashore expected the ship to be ready to leave as soon as they returned.
- *STATE/NTSB:* Chief Mate Kunkel, Pilot Murphy, and the cargo agent were on the bridge when Captain Hazelwood arrived. Subsequently, Captain Hazelwood and the agent left the bridge, apparently to exchange some paperwork below. They returned to the bridge after a 5-10 minute absence. Murphy detected the odor of alcohol on Hazelwood's breath, Kunkel did not but was not close enough to the captain to smell his breath, they later told investigators.
- *ADN:* When Captain Hazelwood and the Exxon crewmen returned to the ship they were surprised to find that the departure time had been moved up to 2100. They had expected to leave around an hour later than that. The harbor pilot was already on board as was a representative of Exxon's local shipping agent. Captain Hazelwood rushed to the bridge without taking off his overcoat, and the other two officers went to work in the radio and engine rooms.
- The captain seemed less formal than usual when he arrived on the bridge, his eyes were watery, and he may have been drinking, but he did not show overt signs of being drunk, the shipping agent later told NTSB investigators.

2030 *NTSB FACTUAL REPORT-OPERATIONS:* Captain Hazelwood returned on board the EXXON VALDEZ and some time later proceeded up to the bridge.

2045 *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG:* Containment boom clear.

2045-0004 *AOSC NOTE:* The block of entries from 2045 through 0004 on the Deck Log were initialed "GC" for 3rdM Gregory Cousins.

2054 *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG:* Bridge control "SBE."

-- *STATE/NTSB:* Bridge control was established.

-- *EXXON/NTSB:* Chief Mate Kunkel relieved 3rdM Cousins on the bridge for the undocking procedures. Cousins then proceeded to the after end of the vessel, his normal undocking station.

2100 *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG:* Start letting go.

2100 *NTSB FACTUAL REPORT-OPERATIONS:* Personnel, consisting of three ABs on the bow under direction of the 2nd mate and the other three ABs on the stern under direction of the 3rd mate, commenced taking in the vessel's mooring lines.

The navigation watch on the bridge consisted of the pilot, the master, and the chief mate. One of the ABs on the 20-2400 watch was scheduled to take the helm, but he was still on the stern handling lines. When the mooring lines were singled up (i.e., reduced to the minimum number necessary to hold the vessel in its berth), the AB left the stern and went to the bridge, taking his position at the steering stand, and standing by to answer the helm as ordered.

All navigation equipment had been tested earlier by the 3rd mate, and the main engine was set on bridge control.

2100-2150 *NTSB FACTUAL REPORT-HUMAN PERFORMANCE:* 3rdM Cousins was reported by an AB as standing-by at his usual location at the aft mooring lines during undocking. Cousins told the USCG investigating officer that he oversaw the stowing of the aft mooring lines after the ship had cast off.

2100-2230 *STATE GRAPH/NTSB:* Chief Mate Kunkel was on bridge.

2112 *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG:* Last line.

-- *NTSB FACTUAL REPORT-OPERATIONS:* The last mooring line was removed from the pier and the pilot commenced moving the vessel away from the berth. At that time, two tug boats were being used by the pilot to assist in maneuvering the vessel.

2116 *AMT GATE LOG:* EXXON VALDEZ departed from Berth Five.

-- *ADN:* Chief Mate Kunkel was on the bridge at the engine controls when the EXXON VALDEZ pulled out of the AMT.

2121 *T/V EXXON VALDEZ DECK LOG:* Clear of dock.

-- *NTSB FACTUAL REPORT-OPERATIONS:* The EXXON VALDEZ was clear of the berth and the pilot commenced conning the vessel toward the harbor entrance, known as the Valdez Narrows, about seven miles away. One of the tugs shifted to a position astern of the vessel where it would remain to escort the vessel through the Valdez Narrows. The other tug was released.

2124 *T/V EXXON VALDEZ BRIDGE ROUGH LOG:* Tugs away, Stalwarth escort tug.

2124 *T/V EXXON VALDEZ DECK LOG:* Escort tug Stalwart alongside.

2125 *ADN:* The EXXON VALDEZ called the USCG Vessel Traffic Center (VTC) to report it was under way. The speaker was not identified, but it was not Captain Hazelwood.

Across the water from the terminal, Alyeska was holding its annual safety awards banquet in the Valdez Civic Center. Down at the City of Valdez council chambers, about 30 residents were meeting to discuss oil and its impact on the town.

2127 *ADN:* Captain Hazelwood disappeared from the bridge.

2135-2310 *STATE/NTSB:* Captain Hazelwood left the bridge at 2135 and did not return to the bridge until approximately 2310, according to Pilot Murphy.

Captain Hazelwood later told USCG investigators that after arriving on board he drank two "nonalcoholic" beers, although it is not clear when they were consumed. (Two empty bottle of this beer, which actually has an alcoholic content of .5 percent, were later discovered by USCG investigator Mark Delozier during his investigation aboard the vessel.)

2136 *NTSB FACTUAL REPORT-OPERATIONS:* About 15 minutes after the vessel got underway, the master left the bridge, according to the pilot.

2150 *EXXON/NTSB:* 3rdM Cousins returned to the bridge. The vessel then proceeded to sea through the Valdez Narrows under the direction of the pilot, Captain Murphy.

-- *ADN:* 3rdM Cousins relieved Chief Mate Kunkel at watch on the bridge. Kunkel took a shower and went to sleep in his room.

2150-0XXX *NTSB FACTUAL REPORT-HUMAN PERFORMANCE:* 3rdM Cousins reported to the pilot house at about 2150 to relieve Chief Mate Kunkel. The 3rd mate later told USCG investigators that he relieved the chief mate early because the chief mate had been up and needed rest.

(The 3rd mate is known to have left the pilot house before the grounding only when he and an AB assisted Pilot Murphy in disembarking from the ship at about 2324.)

2150-XXXX *NTSB FACTUAL REPORT-OPERATIONS:* 3rd mate Cousins arrived on the bridge and relieved Chief Mate Kunkel. The chief mate proceeded to his stateroom where he went to sleep.

The pilot issued orders to the helm as necessary to head for the harbor entrance and to direct the 3rd mate to make the necessary changes in engine speed. The 3rd mate supervised the helmsman to ensure that all rudder orders were correctly

followed. The 3rd mate also monitored the vessel's progress by logging prominent landmarks and navigation aids.

As the vessel approached the Valdez Narrows, the pilot reduced the speed to six knots to conform with the established six knot maximum speed limit for loaded tank vessels and then he maneuvered the vessel to position it on the optimum track line.

2200      *STATE/NTSB*: Chief Mate Kunkel turned in.

2200      *ADN*: 2ndM LeCain went to bed.

2200      *ADN*: Using radar to pierce the darkness and drizzle of the spring night, the EXXON VALDEZ was steered down a narrow slot between islands and reefs on the ship's left side, and a field of icebergs from Columbia Glacier on the right.

2217      *ADN*: The EXXON VALDEZ passed a landmark called Entrance Island and turned into the three-mile-long chute known as the Valdez Narrows, slowing to the speed limit of six knots imposed on loaded tankers.

2220      *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG*: Entrance Island abeam to port .36 nautical miles off.  
            *[AOSC NOTE: The symbol "+θ" was interpreted as "abeam to port."]*

2232      *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG*: Middle Rock abeam to starboard .26 nautical miles.  
            *[AOSC NOTE: The symbol "θ+" was interpreted as "abeam to starboard."]*

XXXX      *ADN*: A mile into the Valdez Narrows, the EXXON VALDEZ eased past what then was thought to be the worst hazard on the Prince William Sound (PWS) tanker route -- Middle Rock -- which divides the Narrows in half and shrinks the width of the ship channel to less than a mile.

2245      *T/V EXXON VALDEZ BRIDGE ROUGH LOG, STATE/NTSB*: Entrance Point abeam to port .26 nautical miles.  
            *[AOSC NOTE: The symbol "+θ" was interpreted as "abeam to port."]*

2249      *ADN*: The EXXON VALDEZ was out of Valdez Narrows.

2249.31      *VTC RADIOPHONE-T/V EXXON VALDEZ*: "Traffic? EXXON VALDEZ Potato Point outbound, increasing speed."

--      *ADN*: The EXXON VALDEZ was out of the Narrows and increasing speed for the run across PWS to Cape Hinchinbrook, where outbound tankers enter the Gulf of Alaska.

--      *AOSC NOTE: The Prince William Sound (PWS) Vessel Traffic Service (VTS) System, operated by the USCG, comprises three major components, a Traffic Separation Scheme (TSS), a Vessel Movement Reporting System (VMRS), and Vessel Traffic Center (VTC) which provides radar surveillance and radio contact. The VMRS is controlled by the VTC, called "Traffic" on the VTC's radiotelephone communications channel, VHF-FM Channel 13.*

2249.40 VTC RADIOPHONE-T/V EXXON VALDEZ: "Ice report, please?"

2249.45 VTC RADIOPHONE-VTC: "There are numerous small pieces of ice, ah, from Freemantle all the way down to Glacier Island, and they had to deviate over into the northbound lane, ta, for about a half an hour. Over."

2249.53 VTC RADIOPHONE-T/V EXXON VALDEZ: "Roger that, EXXON VALDEZ."

2249.56 VTC RADIOPHONE-VTC: "Traffic, clear."

2250 STATE/NTSB: Aboard the EXXON VALDEZ, the lookout, AB Radtke, was posted at the bow at Pilot Murphy's request.

2253 T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG.  
STATE/NTSB: Potato Point abeam to starboard .39 nautical miles.  
[AOSC NOTE: The symbol "8+" was interpreted as "abeam to starboard." Reporting to the Coast Guard that it was clear of Potato Point meant that the EXXON VALDEZ was out of the one-way traffic scheme in Valdez Narrows, thus opening up the Narrows for ships inbound into Valdez.]

-- STATE/NTSB: During the transit, the sea was calm, the wind was light, and the currents had no effect on the vessel EXXON VALDEZ. At Potato Point, visibility improved significantly and Busby Island light was visible eight miles away.

2300 ADN: Biologist Riki Ott, a member of the Cordova District Fishermen United (CDFU) and a well-known critic of Alyeska and its environmental policies, was the featured speaker of the meeting at the city council chambers. Bad weather had grounded Ott in Cordova, so she spoke to the group over a speaker phone. It was nearly 2300 hours when Ott took up the subject of what would happen if there was a major oil spill.  
"Gentlemen, it's not what if, but when," Ott declared.

2305 STATE/NTSB: In anticipation of his disembarking, Pilot Murphy asked that the captain be called to the bridge.

XXXX NTSB FACTUAL REPORT-OPERATIONS: After the vessel passed through the Valdez Narrows, the pilot requested that the 3rd mate call the master to the bridge.

2310 STATE/NTSB: Captain Hazelwood returned to the bridge, after an absence of approximately one hour and 35 minutes. (During this critical part of the voyage after leaving port and while transiting Valdez Narrows and Valdez Arm, the *Exxon Shipping Company Manual* requires two officers on the bridge. Additionally, the *Manual* provides that the presence of a pilot does not relieve the master of his responsibility for the safety of the vessel and that the master must continue to monitor the safe navigation of the vessel while it is being conned by the pilot.)

XXXX NTSB FACTUAL REPORT-OPERATIONS: The master returned to the bridge and, a short time later, the master directed the 3rd mate to escort the pilot down to the port main deck where the pilot ladder was rigged. The master also called the AB

acting as lookout on the bow, by hand-held radio, and instructed him to proceed aft and assist the 3rd mate to disembark the pilot and to secure the pilot ladder.

-- *EXXON/NTSB*: Shortly before reaching the pilot station, Captain Hazelwood came up to the bridge. The captain took control while the 3rd mate escorted the pilot to the pilot ladder.

2315 *STATE/NTSB*: The engines of the EXXON VALDEZ, which had been half ahead (45 RPM), were reduced to slow ahead (31 RPM) in anticipation of disembarking the pilot.

2323 *EXXON/NTSB*: The pilot debarked.

2324 *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG*: Pilot off.

-- *NTSB FACTUAL REPORT-HUMAN PERFORMANCE*: 3rdM Cousins left the pilot house when he and an AB assisted the pilot during disembarking from the ship.

-- *NY TIMES/NTSB*: Harbor Pilot Captain Murphy left the EXXON VALDEZ, returning control to Captain Hazelwood. Captain Murphy smelled alcohol on Capt. Hazelwood's breath.

2324-2336 *NTSB FACTUAL REPORT-OPERATIONS, STATE/NTSB*: The pilot departed the vessel. Assisting the pilot in disembarking by ladder were 3rdM Cousins and the bow lookout, AB Radtke. This took some 10-12 minutes, including time afterwards to stow the pilot's ladder. During this period Captain Hazelwood was the only officer on the bridge and there was no lookout, even though the watch condition required two officers on the bridge and at least one lookout.

2324-XXXX *NTSB FACTUAL REPORT-VESSEL TRAFFIC SERVICE*: The VTC radar watchstanders were not tracking the progress of the EXXON VALDEZ after the pilot departed at 2324 when the vessel was located five miles south of Potato Point.

2324 *STATE/NTSB*: The engines were commanded full ahead (56 RPM) with the ship on a course of 218 .

2324.50 *VTC RADIOPHONE-T/V EXXON VALDEZ*: "Valdez Traffic? Ah, Exxon Bata, ah, Valdez."

2324.54 *VTC RADIOPHONE-VTC*: "Valdez Traffic."

2324.58 *VTC RADIOPHONE-VTC*: "Valdez Traffic. Go ahead."

2325.01 *VTC RADIOPHONE-T/V EXXON VALDEZ*: "We've, ah, departed the pilot, disembarked the pilot, excuse me, and this time are hooking up to sea speed, and ETA Naked Island 0100. Over."

-- *NTSB FACTUAL REPORT-OPERATIONS*: The captain informed the USCG VTC that the pilot had departed and he was increasing the vessel's speed to "sea speed." The captain also informed the VTC that the vessel's estimated time of arrival (ETA) at Naked Island, one of the locations where vessels report their position to the VTC, would be at 0100.

-- *ADN*: Captain Hazelwood made his first call to the USCG.  
(When the tape of this conversation was heard by the *Anchorage Daily News*, the voice of Captain Hazelwood, which generally could be called lucid and to the point, was in a monotone so slow and guttural, it sounded as if the tape was being played at half speed. His speech was noticeably less clear than that of the USCG radio operator.)

-- *STATE/NTSB*: Captain Hazelwood's slurred speech, apparent inadvertent reference to the EXXON BATON ROUGE, his former ship, and the fact that Hazelwood did not reply to the first VTC response to his call, but had to be prompted a second time, may reflect the effects of Hazelwood's consumption of several alcoholic beverages only a few hours earlier.

2325.19 *VTC RADIOPHONE-VTC*: "Roger that, Sir. Request an updated ice report when you get down through there. Over."

2325.24 *VTC RADIOPHONE-T/V EXXON VALDEZ*: "OK. I was just about to tell you that judging, ah, by our radar, we'll probably divert from the TSS and end up in the inbound lane if there is no conflicting traffic. Over."

2325.42 *VTC RADIOPHONE-VTC*: "No reported traffic. I've got the CHEVRON CALIFORNIA one hour out and the ARCO ALASKA is right behind them, but they're an hour out from Cape Hinchinbrook. Ah, how on that? Over."

-- *ADN*: The VTC was telling Captain Hazelwood that the nearest inbound tanker, the CHEVRON CALIFORNIA, was still outside PWS and not due at Cape Hinchinbrook for another hour.

-- *NTSB FACTUAL REPORT-OPERATIONS*: In response to a request from the VTC for a report on ice conditions, the master responded: "judging from our radar we'll probably divert...and end up in the inbound lane...if there is no conflicting traffic."  
The VTC indicated concurrence by stating that there was no reported traffic.

-- *NY TIMES/NTSB*: Capt. Hazelwood radioed the USCG that he was taking the ship on a southern course to avoid ice.

2325.53 *VTC RADIOPHONE-T/V EXXON VALDEZ*: "That'll be fine. Yah. We may end up over in the inbound lane, outbound transit. We'll notify you when we leave the, ah, TSS and, ah, cross over Separation Zone. Over."

2326.07 *VTC RADIOPHONE-VTC*: "Roger that. We'll be waiting your call. Traffic, out."

2326.10 *VTC RADIOPHONE-T/V EXXON VALDEZ*: "OK. EXXON VALDEZ, over. Standing by 13-16."

-- *AOSC NOTE*: The 13 was in reference to Radiotelephone Channel 13.

2327-2331 *STATE/NTSB*: At 2327, the EXXON VALDEZ began to come to a heading of 200 degrees, and was on that heading at approximately 2331.

2330.45 *VTC RADIOPHONE-T/V EXXON VALDEZ*: "Valdez Traffic? EXXON VALDEZ (WHCB). Over."



2330.54 *VTC RADIOPHONE-T/V EXXON VALDEZ and ADN*: "Yeah. At the present time, ah, I'm going to alter my course to two-zero-zero (200 degrees) and reduce speed (to) about 12 knots to, ah, wind my way through the ice, and Naked Island ETA might be a little out of whack, but, once we are clear of the ice out of Columbia Bay, we'll give you another shout. Over."

-- *ADN*: Captain Hazelwood meant he was turning left to a heading of 200 degrees. This course, if held long enough, would take him across the separation zone and then across the inbound lane.

The EXXON VALDEZ was about seven miles out of the Narrows. The Busby Island light was ahead and to his left. The next light on that side marked Bligh Reef. 14 miles from the Narrows.

-- *NTSB FACTUAL REPORT-OPERATIONS*: The master informed the VTC that he was going to alter the vessel's course to 200 degrees and reduce speed to 12 knots to "wind my way through the ice." The engine room bell logger shows that the vessel's speed continued to increase after the pilot departed.

-- *STATE/NTSB*: Since the ship was already at 12 knots, Hazelwood erred in advising the VTC that he was reducing speed.

2331.16 *VTC RADIOPHONE-VTC*: "Roger that, Sir. We'll be awaiting your call. Traffic, standing by."

2334 or 2336 *NTSB FACTUAL REPORT-OPERATIONS, STATE/NTSB*: After the pilot's ladder was stowed, the AB returned to the bow and the 3rd mate returned to the bridge. The master called the AB on lookout (Radtke), by hand-held radio, and told him to inform the AB who would be coming on watch about 2350 as lookout to go to the bridge to stand her watch.

XXXX *EXXON/NTSB*: After the pilot disembarked, 3rdM Cousins returned to the bridge.

2336 *ADN*: The EXXON VALDEZ (according to NTSB investigator-in-charge William Woody) took up a course of 180 degrees, or due south. That course change put the vessel on a path just east of Bligh Reef, about six miles ahead in the darkness. At 2330 the captain had told the USCG he was going on a heading of 200 degrees and reducing his speed to 12 knots. The engine speed, however, continued to increase. When the heading was changed to 180 degrees, the captain did not report it to the VTC as required.

2339 *NTSB FACTUAL REPORT-OPERATIONS*: The 3rd mate plotted a fix which showed the vessel in the middle of the Traffic Separation Scheme. A short time later, the master changed the vessel's course to 180 degrees. According to the helmsman (20-2400 watch), the master then had him place the vessel on automatic pilot. This course change was not reported to the VTC.

According to a statement later made to a USCG investigating officer, the master claimed that he verbally provided instructions to the 3rd mate about changing course back to the right. Then the captain left the bridge. At the time of his statement to the USCG, the master identified a position about 235 degrees, 1.4 miles from Busby Island light, where the captain stated the course change was to have been made.

3rdM Cousins later stated to a USCG investigating officer that he was aware that the master had placed the vessel on 180 degrees. Also, he indicated the same

position for starting the turn back toward the traffic lanes as was indicated by the master.

-- *STATE/NTSB:* 3rdM Cousins, who earlier had returned to the bridge after seeing the pilot off, took a fix. This fix was taken at the direction of the captain who advised that he was making a course change to 180 degrees to avoid ice. The captain ordered Helmsman Claar to make the course change and to engage the autopilot. This course change took the EXXON VALDEZ south of the inbound lane of the Traffic Separation Scheme. Contrary to USCG regulation, the ship never reported to the VTC that it was diverting from the inbound lane and leaving the TSS altogether. Helmsman Claar thought it unusual that the autopilot would be engaged in Prince William Sound. 3rdM Cousins was the only officer on the bridge in Hazelwood's absence.

Cousins later testified that although he discussed the ice situation with Captain Hazelwood about the time of the course change to 180 degrees, he never visually sighted the ice, although he attempted to do so. Cousin's observations of the ice were based on his radar observations. He further stated that the ice was two miles dead ahead on a course of 200 degrees, and that the ice could not have been avoided by going around to the east side. He further stated that the ice was in a cone shape and that there was a distance of approximately nine-tenths of a mile between the northern edge of the reef and the leading edge of the ice. Based on Cousin's annotated navigation chart, the ship was in extremely close quarters, was accelerating, and had the automatic pilot engaged.)

*[AOSC NOTE: When on autopilot, the gyro is engaged.]*

-- *NY TIMES/NTSB:* 3rdM Gregory T. Cousins plotted the ship's position at midway between shipping lanes. Shortly afterward, Captain Hazelwood ordered a course due south until it came near Busby Island, and then a turn back into shipping lanes. The ship was left on autopilot. The USCG was not notified of course change. Captain Hazelwood went to his cabin.

-- *EXXON/NTSB:* While the EXXON VALDEZ was on a course of 200 degrees but beginning to swing to a course of 180 degrees, a position fix was taken by sight bearing off Busby Light, and by a radar range. The speed at that time was approximately 11 knots.

XXXX-XXXX *ADN:* EXXON VALDEZ received permission from USCG to turn due south from the southbound to the northbound tanker traffic lane, a ten-minute trip. However, the ship proceeded south 19 or 20 minutes on a line toward Reef Island.

After the EXXON VALDEZ was given permission to turn due south, it sailed on that course for 19 or 20 minutes, covering a distance of 3.5 to 4 miles. It passed through the separation zone between the tanker lanes, through the northbound lane, and into waters near Busby Island, according to the NTSB.

According to the NTSB and the USCG, the ship was given permission to move from the outbound tanker lane into the inbound tanker lane to avoid ice, but it neither requested nor was it given permission to leave the lanes altogether.

2340 *NTSB FACTUAL REPORT-OPERATIONS:* The 0000-0400 AB left her cabin. As she was leaving her cabin to go to the galley before going on watch, she met the 2000-2400 AB who informed her of her watch station change.

2345 *ADN:* 2ndM LeCain was supposed to have relieved Cousins at this time. However, Cousins chose to stay on watch so LeCain could sleep.

DAY MINUS-ONE (Thursday, March 23)

2345 *USCG VTC VALDEZ LOG:* At the USCG Marine Safety Office (MSO), Valdez, the civilian watch was relieved by B. L. Blandford.

-- *ADN:* Civilian radarman Bruce Blandford took his regular shift at the USCG station, relieving Gordon Taylor. Taylor told Blandford where he thought the EXXON VALDEZ was and why. Then Taylor left the station.

Blandford began doing his daily chores -- changing audio tapes on the machine that records radio and telephone traffic, setting up data logs -- while waiting for the EXXON VALDEZ to call and say it was leaving the northbound lane.

2347 *STATE/NTSB:* The EXXON VALDEZ went beyond the easterly boundary of the TSS.

2349 or 2350 *STATE/NTSB:* The EXXON VALDEZ's fathometer was turned on. Its printout indicates that the ship was outside the 100 fathom line at this time.

2350 *STATE/NTSB:* AB Kagan arrived on the bridge to relieve AB Claar but left to fetch a jacket.

-- *EXXON/NTSB:* Helmsman Claar was relieved by Helmsman Kagan. At that time, the vessel's course was 180 degrees and the vessel was on gyro (automatic) steering.

2350 *NTSB FACTUAL REPORT-OPERATIONS:* The 00-0400 seaman scheduled to become the lookout (M. Jones) arrived on the bridge.

The AB has stated she looked briefly at the chart on the bridge to get some idea where the vessel was, and then looked at the radar before taking a position on the starboard bridge wing. She recalled that the other AB on her watch had to go back down to get his jacket, and that the 3rd mate was in charge of the watch. She did not see the master, but was not sure whether or not the master was on the bridge.

She recalled that she could see Busby Island light a few degrees forward of the port beam from her position on the starboard bridge wing.

-- *ADN:* Lookout M. Jones (according to NTSB investigator Woody) came on watch, relieving Radtke.

-- *STATE/NTSB:* Captain Hazelwood ordered bow lookout Radtke to secure his watch and to advise AB M. Jones that the lookout would be stood on the bridge wing.

-- *STATE/NTSB:* AB M. Jones' later testimony is that this is when she came on duty and began her watch.

*[AOSC NOTE: According to the state, other, more reliable testimony, places her arrival on the bridge at five minutes later than this.]*

-- *AOSC NOTE:* The "T/V EXXON VALDEZ Deck Log" does not record the time for the watch change. Normally, M. Jones as lookout and Kagan as helmsman would take this watch with 2ndM LeCain as watch officer.

2350 *EXXON/NTSB:* At about the time of the watch change, Capt. Hazelwood instructed 3rdM Cousins to start turning back into the vessel traffic lanes when the vessel was abeam of Busby Island Light. At that time, by radar, Cousins observed there was approximately .9 miles distance between the northern edge of Bligh Reef and the ice flow.

2350+ *EXXON/NTSB*: Captain Hazelwood left the bridge shortly after 2350.

2350+ *NTSB FACTUAL REPORT-OPERATIONS*: The 00-0400 helmsman (Kagan), as he later told the NTSB chief investigator, may have relieved the helm a little later than usual, because he went back to his cabin to get his jacket.

2352 *STATE/NTSB*: The EXXON VALDEZ crossed the 100 fathom line, a position .7 miles north of the abeam position of Busby Island light.

2352 *T/V EXXON VALDEZ BRIDGE ROUGH LOG*: Load program up.

-- *STATE/NTSB*: The command "load program up" placed the engine under the jurisdiction of a computer program which, during a span of 43 minutes, increases the engine speed from 55 RPM to sea speed full ahead at 78.7 RPM. The captain, who was still on the bridge until shortly before the 0000-0400 watch change, apparently gave this command.

2353 *STATE/NTSB*: According to later testimony from Cousins's, the master left the bridge at this time to get some messages out, leaving the ship in charge of Cousins. Prior to leaving the bridge, Hazelwood discussed with Cousins his instructions for returning to the TSS. According to Cousins, Hazelwood instructed him that once the ship was abeam Busby Island light, that he should "start coming back into the lanes."  
(Cousin's did not possess the necessary Prince William Sound Pilotage endorsement and had only minimal experience transiting Prince William Sound with ice present.)  
At the time Hazelwood left the bridge, the ship was approximately .4 miles north of the abeam position off Busby Island light.  
*[AOSC NOTE: According to the state, the lack of precision and consistency of the instructions Hazelwood provided Cousins is of great importance. If, on the one hand, Cousins was instructed to turn at Busby Island, then by all accounts Cousins delayed executing the turn for approximately six minutes. Cousins was unable to explain how he could have made such an error. If, on the other hand, as is supported by the physical evidence and reliable testimony and recollections of the crew and USCG personnel (which the state says is the case), Hazelwood's instructions to Cousins were to turn at a point south of Busby Island (which point was .7 miles -- or 3 and 1/2 minutes, assuming 12 knots -- south of the point abeam of Busby Light) and avoid the ice, then Hazelwood placed the vessel in very close and dangerous quarters even for an experienced mariner.]*

235X *STATE/NTSB*: Radtke, making his way back to his quarters, had seen AB Jones in the passageway below. He advised her of the watch change.

2355 *STATE/NTSB*: This ship was on a heading of 180 degrees, and the 0000-0400 watch was coming on duty. The watch consisted of Kagan on the helm and AB M. Jones as lookout. Cousins was to have been relieved by 2ndM LeCain, but Cousins, feeling "fine," had earlier told LeCain that he could take his time in relieving him. Since Cousins did not call LeCain to awaken him for the 0000-0400 watch, Cousins remained on duty.

-- STATE/NTSB: AB M. Jones (according to Radtke's later testimony to the NTSB, which the state calls more reliable than Jones' own testimony) arrived on the bridge at this time (not 2350 as Jones testified).

At the same time, AB Kagan returned on the bridge to relieve AB Claar at the helm. Kagan has testified that he did not believe the master was on the bridge at this time.

The EXXON VALDEZ was on a course of 180 degrees.

2355 T/V EXXON VALDEZ DECK LOG: Busby Island Light abeam to starboard 1.1 nautical miles at 2355.

[AOSC NOTE: The symbol "θ" was interpreted as "abeam to starboard." The group of entries in the Deck Log from 2145 through 0004 were initialed "GC" for 3rdM Cousins.]

-- STATE/NTSB: 3rdM Cousins took the ship's fix as 1.01 miles abeam of Busby Island Light. Afterwards, he plotted the fix on the bridge chart.

[AOSC NOTE: According to the state, based on physical evidence and reliable testimony, it is likely that this fix at 2355 was accurate. This means, according to the state, that recollections of AB M. Jones as to the time of her coming on duty, i.e. 2350, and her sightings of the Bligh Reef light, i.e., 2356, are faulty.]

-- EXXON/NTSB: A position fix taken by Cousins placed the vessel abeam of Busby Light at a distance of .9 miles. The position fix was taken using a visual bearing from the vessel to Busby Island Light and a radar range from the three centimeter radar. It took no longer than one minute for the position fix to be taken and plotted on the navigation charge.

Prior to taking the 2355 fix, Cousins had personally switched the steering mode from gyro to hand steering.

-- STATE/NTSB: Claar reported to 3rdM Cousins that the steering was on the gyro. Cousins was not aware the gyro was engaged. Sometime later, but before any further rudder commands were issued, Cousins ordered the gyro to be disengaged, and it was disengaged.

[AOSC NOTE: According to the state, the "Standing Orders" of the Exxon Shipping Company prescribe that steering shall be performed manually when navigating close to the shore or near shallow banks. Accordingly, Hazelwood's ordering of the use of the autopilot system was in violation of these orders.]

-- ADN: The EXXON VALDEZ (according to NTSB investigator Woody) made another turn. The ship took up a heading of about 240 degrees, pointing it back toward safe waters, but too late.

2355 ADN 3/29: The EXXON VALDEZ hit a jagged rock pinnacle, submerged 50 feet below the water, about a quarter-mile outside of the shipping lanes. At this point the tanker was traveling almost due south. (The contact, along the starboard side of the vessel, made three triangular hole punches, damaging two tanks, as well as indentations of up to six feet in the hull of the vessel.)

2355 ADN 9/11: The EXXON VALDEZ passed Busby Island, a location a little more than two miles north of Bligh Reef, and 3rdM Cousins took his fix. At that point, under orders from the captain, Cousins was to have started turning away from Bligh

- Reef and back toward the standard tanker lanes. Cousins said he ordered the turn within a minute of taking the fix, a fact not born out by the vessel's course recorder.
- 2355-0001 *NY TIMES/NTSB*: 3rdM Cousins said he ordered the ship to turn 10 degrees right rudder at 2355. But the ship's recording device shows that the ship continued on course until beginning to turn at 0001.
- 2355 - *NTSB FACTUAL REPORT-OPERATIONS*: AB M. Jones, after being on watch for a few minutes, noticed a flashing red light broad (45 degrees) on the starboard bow, and estimated it to be flashing every five seconds. She immediately entered the pilot house and reported the light to the 3rd mate. When she made her report, she observed the 3rd mate plotting a fix on the chart west of Busby Island light. (She later identified the fix as the one plotted at 2355, about 1.1 miles west of Busby Island light.)
- ADN: Within minutes after taking her watch, AB M. Jones warned the bridge that the Bligh Reef light was off to the ship's right. If the ship had been in safe waters, the light would have been to its left.
- *AOSC NOTE: Throughout North America and much of the world, the old mariner's phrase, "Red right returning," applies to the transit of established navigational channels. By keeping the red channel markers and red buoys on the boat's right, or starboard, when returning to port, generally-safe passage is assured. When traveling away from a harbor, as was the case with the EXXON VALDEZ, safe navigation requires red markers be kept to the left, or port side.*
- 2355+ + *NTSB FACTUAL REPORT-OPERATIONS*: AB M. Jones returned from the pilot house to the starboard bridge wing, reevaluated the period of the flashing red light to be four seconds, reentered the pilot house, and reported the revised light period to the 3rd mate. At this time, the 3rd mate was looking at the radar. The 3rd mate acknowledged her report in a calm, routine manner. After the lookout made her second report about the red flashing light on the starboard bow, she returned to the starboard bridge wing.
- 2356 *STATE/NTSB*: AB Jones has testified to the NTSB that this is when she first reported to 3rdM Cousins a flashing five-second red light, later determined to be the Bligh Reef light, broad off the starboard bow.  
*[AOSC NOTE: The state disputes this testimony, placing the sighting at approximately 0000.]*
- 2356 *HORTON*: Cousins (according to his later testimony to the NTSB) ordered the ship turned to the west, in what should have been time to avoid Bligh Reef.
- 235X *NTSB FACTUAL REPORT-OPERATIONS*: The third officer (3rdM Cousins, according to his later statement to the USCG investigator) plotted a fix on the chart when Busby Island light was abeam showing the vessel about 0.9 miles west of Busby Island. When he believed the vessel reached the point indicated by the master, he ordered the rudder to right 10 degrees, and a short time later, ordered the rudder increased to right 20 degrees. He stated that the vessel slid sideways instead of turning so he increased the rudder to hard right. At this same time, he called the master by telephone to inform him that there was a problem.

235X

*EXXON/NTSB:* (After taking the position fix which placed the vessel abeam of Busby Light) because the ice appeared on radar to be fine off the starboard bow. 3rdM Cousins ordered 10 degrees right rudder. It was his intention to swing the vessel easily toward the ice.

After ordering the 10 degrees right rudder, 3rdM Cousins called Capt. Hazelwood in his cabin one deck below to tell him that the vessel might get into the leading edge of the ice.

The vessel was on 20 degrees right rudder for approximately two minutes at which time Cousins issued a hard right rudder order.

235X

*NTSB FACTUAL REPORT-OPERATIONS:* As the AB departed the pilot house after making her second report about the red flashing light on the starboard bow, she noticed the vessel was beginning to swing slowly to the right.

235X

*NTSB FACTUAL REPORT-OPERATIONS:* The helmsman recalled that he steered 180 degrees until the 3rd mate ordered the rudder to right ten degrees and that the 3rd mate then ordered the rudder increased to right 20 degrees. He recalled that he was coming to a course of 235 or 245 degrees and that he had placed some counter rudder to slow the vessel's swing.

DAY MINUS-ONE (*Thursday, March 23*)



# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

FRIDAY, MARCH 24, 1989 (GOOD FRIDAY)

## DAY ONE

### Approximate Alaska Local Time

- 0000 *EXXON/NTSB:* On board the EXXON VALDEZ was the *Exxon Shipping Company Navigation and Bridge Organization Manual*, comprised of several sections including one which establishes the complement of officers on the bridge depending upon certain navigation situations. The navigation situation for the EXXON VALDEZ at this time was Condition C, which called for two navigating officers to be on the bridge. At this time, in the absence of the captain, there was only one navigating officer on the bridge.
- 0000 *STATE/NTSB:* The EXXON VALDEZ was 1.1 miles north of the tip of Bligh Reef at approximately 0000. AB Jones first reported a flashing five-second red light, later determined to be the Bligh Reef light, broad off the starboard bow. 3rdM Cousins was at the chart table. He acknowledged her in a calm manner.  
*[AOSC NOTE: The state places the sighting at this time, disputing testimony of AB Jones that the sighting was at 2356.]*  
After reporting to Cousins the five-second red light, Jones returned to her lookout position on the starboard bridge wing. At this time, she estimated the light was flashing every four seconds. She reported this to Cousins who was now at the port-side radar. Cousins again took this report in a calm manner.  
After this second report, Cousins ordered 10 degrees right rudder at 0000 and, being at the radar, observed that the ice was very close. He nonetheless commenced the turn into the ice. Cousins also called Captain Hazelwood and informed him that he had started his turn back to the traffic lanes and advised him that the ship would be getting into the ice. Hazelwood took no action and gave no clarifying order to Cousins.
- 0001 *ALYESKA:* The Alyeska Pipeline Company Marine Terminal at Valdez reported weather conditions at the AMT as calm wind, cloudy, temperature 33 degrees.
- 0001 *STATE/NTSB:* Upon finishing his conversation with Hazelwood, Cousins returned to the radar and, observing no appreciable change in course, ordered Helmsman Kagan to apply 20° right rudder.  
According to the course recorder of the EXXON VALDEZ, the ship appears to have begun to change its heading. This point was .7 miles south of the point identified by the U.S. Coast Guard as the point at which Cousins was to begin a turn to come back into the Traffic Separation Scheme.  
According to the EXXON VALDEZ Maneuvering Diagram, and Cousins' testimony as to the vessel's load and speed, the ship would have had an advance of .6 miles, assuming the use of maximum 35-degree rudder angle. Given this advance, and given that only 10-degree rudder was initially applied, the ship was incapable of avoiding Bligh Reef by the time the ship commenced to swing.
- *NY TIMES/NTSB:* The recording device on the EXXON VALDEZ showed the ship continued on course until beginning to turn at this time. Also around this time, a lookout, posted on the bridge instead of 800 feet forward on the bow, reported a flashing light to 3rdM Cousins. That was the light marking Bligh Reef. In the last six

DAY ONE (Friday, March 24)

minutes, the ship had traveled another 1.3 miles east of the deep shipping channel toward rock submerged 50 feet underwater.

(Later, before the NTSB, Cousins said he could not explain the six-minute gap as to when Cousins said he issued the heading change and what was shown by the ship's recording device.)

-- *ADN:* Course recorder on the EXXON VALDEZ indicated the time the vessel started the turn made by Cousins.

(Later, before the NTSB, Cousins was not able to explain the lag of five-six minute between when he said he started the turn and when the turn actually started. He told the NTSB that he didn't have an answer for the gap but was sure that he had not lost track of time for a few minutes.)

0001 or 0002 *EXXON/NTSB:* The course recorder reflects that the EXXON VALDEZ commenced a turn to the right at one or two minutes after midnight.

At the speed the vessel was traveling, it would have advanced .6 miles during a turn to the right. Based upon the maneuvering diagram for the vessel and the bridge navigation charts, the EXXON VALDEZ could have commenced its turn as much as a mile and a half south of its position abeam of Busby Light and still have avoided Bligh Reef.

The EXXON VALDEZ did not commence its turn to the right until six or seven minutes after the 2355 fix when the vessel was abeam of Busby Light. During the six-seven minute delay in turning, the vessel, at a speed of 12 knots, would have progressed approximately 1.4 miles further toward Bligh Reef.

Mr. Cousins has since stated that he issued rudder orders beginning with the vessel's position being abeam of Busby Light. There is an obvious discrepancy between this statement and course recorder information showing the vessel's heading changes. There was no indication of steering failure on the vessel.

0002 *STATE/NTSB:* The ship EXXON VALDEZ was on a heading of 190 degrees, approximately .7 miles north of Bligh Reef.

After commanding the 20 degrees right rudder, Cousins stepped out onto the bridge and observed Busby Island light to the stern and Bligh Reef light ahead. He then returned to the bridge and viewed the radar. Cousins observed little movement off the original track line of 180 degrees, even though the ship's heading was changing.

000X *EXXON/NTSB:* Several seconds after issuing the order for hard right rudder, 3rdM Cousins called the captain and told him he thought the vessel was in serious trouble. At the end of the conversation, he felt an initial shock to the vessel. After feeling about six bumps, 3rdM Cousins ordered hard left rudder in an attempt to save the engine room portion of the vessel from contact with the reef. According to Cousins, the vessel appeared to slide rather than turn after the right rudder orders were given. This slide was immediately before the grounding.

000X *NTSB FACTUAL REPORT-OPERATIONS:* According to the helmsman, a few minutes after the 3rd mate had excitedly ordered the rudder to hard right, the vessel grounded. The helmsman described the grounding as a "bumpy ride." According to the helmsman, as soon as the vessel started to ground, the 3rd mate ordered the rudder shifted to hard left.

000X *ADN:* After closing to within less than two miles of Reef Island, the EXXON VALDEZ began a series of slow turns (right rudder from 10 to 20 degrees), swinging it toward the passage between Reef Island and Bligh Reef. Shortly thereafter, the

helmsman was ordered to go hard-right rudder. The starboard or right side of the ship hit the inside edge of the Bligh Reef shoal, about a mile and a half northeast of the Bligh Reef light. An order of hard left quickly followed by a hard right put the ship aground on the reef.

000X *NTSB FACTUAL REPORT-OPERATIONS:* The 0000-0400 seaman on lookout, after making her second report about the red flashing light on the starboard bow, returned to the starboard bridge wing. As she departed the pilot house, she noticed that the vessel was beginning to swing slowly to the right. A few seconds later the grounding occurred. She stated she heard a relief valve on the vessel's inert gas system relieve making a "popping noise" followed by a sound like air or gas escaping, and that she detected the smell of inert gas.

000X *NTSB FACTUAL REPORT-OPERATIONS:* According to a statement made to the USCG investigating officer, the master stated he received a phone call from the 3rd mate immediately before the grounding. The 3rd mate told him there was a problem with the vessel's navigation. The master then felt the vessel strike something and rushed to the bridge, arriving there about the time the vessel completed the grounding. The captain immediately gave a number of rudder orders to free the vessel, but without success.

0004 *NY TIMES/NTSB:* 3rdM Cousins ordered hard right rudder to avoid reef, but the ship ran aground.

0004 *T/V EXXON VALDEZ BRIDGE ROUGH LOG:* Grounded Reef Island .95 nautical miles abeam 129 Bligh Island Reef, abeam 228 Busby Island 2.88 nautical miles.

*[AOSC NOTE: This entry was initialed "GC" in three places, apparently for 3rdM Gregory Cousins.]*

-- *T/V EXXON VALDEZ DECK LOG:* Apparent grounding Reef Island .95 nautical miles off Bligh Island. Reef light abeam 228 Busby Island light.

*[AOSC NOTE: As noted, the entries in the Deck Log for 2045 through 0004 were initialed "GC," apparently for Gregory Cousins.]*

-- *NTSB FACTUAL REPORT-OPERATIONS:* The 3rd mate of the T/V EXXON VALDEZ logged the grounding of the vessel.

-- *EXXON:* Ship's logs indicate EXXON VALDEZ grounded.

-- *EXXON/NTSB:* The delay in bringing the EXXON VALDEZ back into the traffic lane (after the 2355 fix) must be considered the principal cause of the grounding.

-- *ALYESKA:* The T/V EXXON VALDEZ was hard aground on Bligh Reef.

-- *ALYESKA/NTSB:* The EXXON VALDEZ, loaded with 1,264,155 barrels (53,094,510 gallons) of ANS crude oil and proceeding at a speed of 12 knots, collided with Bligh Reef in Prince William Sound. The collision occurred with extraordinary speed, in the dead of night, in winter, with ice in the water and snow on the ground.

-- *USEPA:* The EXXON VALDEZ, loaded with about 53 million gallons of Prudhoe crude oil from the trans-Alaska pipeline, ran aground on Bligh Reef.

-- *ADN:* After traveling about two miles beyond where it first hit a rock pinnacle, the Exxon Valdez hit Bligh Reef, at that time submerged 28 feet below water, and ran aground. The impact was again on the starboard side of the vessel.  
(Oil was leaking at a rate of about 20,000 gallons per hour from the vessel. Known on Sunday, but not known then, was that eight holes were punched in the hull. The two largest were eight feet by 15 feet and 20 feet by six feet. In addition, on Sunday, the rock was thought to be protruding into the ship through another larger hole.)

XXXX *USEPA:* With Bligh Reef between the EXXON VALDEZ and the shipping lanes, rocks grazed the tankers starboard sides. The alarmed crew then turned hard to get back to the shipping lanes, and crossed the reef at a right angle. It finally grounded and stopped on its midsection, the bow and stern suspended, oil pouring out. (On the first contact, rocks grazing the tanker's starboard side punched holes and cracks in several oil compartments. Then, when the crew turned hard to get back to the shipping lanes and the tanker crossed the reef at a right angle, a series of holes ranging in size from eight by 15 feet to six by 20 feet were punched in the bottom of the tanker.)

00XX *EXXON/NTSB:* At the time of the grounding, Captain Hazelwood returned to the bridge.

0004 *STATE/NTSB:* Cousins directed Kagan to bring the rudder hard right. Cousins has estimated that two minutes elapsed between the command 20 degrees right rudder and the command hard right rudder. *(Despite the logging of the grounding at 0004, it had not yet occurred at that time.)*

0004-0019 *NTSB FACTUAL REPORT-OPERATIONS:* According to a statement made to the USCG investigating officer, the master received a phone call from the 3rd mate immediately before the grounding. The 3rd mate told him there was a problem with the vessel's navigation. The master then felt the vessel strike something and rushed to the bridge, arriving there about the time the vessel completed the grounding. He immediately gave a number of rudder orders to free the vessel, but without success. The vessel's engine was stopped about 15 minutes later.

-- *ADN:* Captain Hazelwood kept the EXXON VALDEZ charging ahead under full power for more than 13 minutes after impact. Then, in less than a minute, he reduced the power to half ahead, slow ahead, dead slow ahead, and stop.

0005 *STATE/NTSB:* The bell logger of the EXXON VALDEZ recorded 61 RPM, up from 56 RPM, indicating that the "load program up" mode was engaged and the ship's speed was thereby gradually increasing. No attempt was made to reduce the ship's speed after going "load program up." The ship was on a heading of 234 degrees.

0006 *STATE/NTSB:* The EXXON VALDEZ was on a heading 247 degrees and making approximately 12 knots when it crossed the 50 fathom "hole." The ongoing right turn was interrupted for approximately 30 seconds as helmsman Kagan used a counter rudder to slow the swing of the ship and to steady upon on a course of 235 degrees or 245 degrees. After the turn was momentarily checked, the ship moved into a tighter right turn.

0007 *STATE/NTSB:* 3rdM Cousins returned to the radar and, after a few seconds, again telephoned the captain and said, "I think we are in serious trouble." Even before the

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conversation between the 3rd mate and the captain was concluded, the first shudder of the vessel was felt as it ran aground on Bligh Reef at approximately 0007.

As the conversation ended, a series of jolts was experienced. Cousins later described them as approximately six "very sharp jolts." The ship was impaled on Bligh Reef. Glowacki, the chief engineer, was not yet aware the ship had grounded.

*[AOSC NOTE: According to the state's analysis, the time of 0007 is based on the state's reconstruction of the course of the EXXON VALDEZ. Based in part on the fact that the fathometer was activated at 2449 or 2350, the state's premise is that the ship first contacted Bligh Reef at 0007 when the fathometer read "0."*

*Also, according to the state, Cousins, in his testimony to the NTSB, indicated that although the ship's charts give the time of grounding as 0004, he feels that that is more the time of initial contact. Cousins would put the grounding at about a minute later.]*

0009-0015 STATE/NTSB: Upon initial contact with Bligh Reef, the EXXON VALDEZ continued to turn to the right, coming to 299 degrees at 0009.

Cousins, after feeling the series of "jolts," ordered hard left rudder in the hope of keeping the aft section of the ship, where the engine room and living spaces were located, from making contact. When Kagan hesitated in following the command, Cousins himself spun the wheel hard left. The ship's turn to the right was arrested and the bow swung back to port from a maximum of 305 degrees at 0010 to 253 degrees at 0015.

0015+ STATE/NTSB: Cousins went out onto the bridge wing and shined a light off the side, but failed to visually detect any oil. However, he smelled both crude oil and vapors and inert gas. Cousins concluded that under the prevailing conditions there was a fire hazard but ordered no special precautions be taken.

*[AOSC NOTE: In testimony to the NTSB, Cousins said he went out on the bridge wing when he realized they were grounded. He turned on a bridge wing light and shined it over the side of the vessel but he couldn't see anything, it was too black. He did smell inert gas from the relief valve on deck and crude oil vapors.]*

00XX STATE/NTSB: Awakened by the shuddering of the ship, Chief Mate Kunkel dressed and proceeded to the bridge where he found 3rdM Cousins in the chart room. Captain Hazelwood was still below. Cousins advised Kunkel that the ship was aground and the chief mate, apparently without any orders to do so, proceeded to the control room to assess the damage and determine how many tanks were holed. On his way to the control room, Kunkel spoke to 2ndM LeCain and directed LeCain to go to the bridge. Kunkel proceeded to obtain his survival suit and then went to the cargo control room. On his way to the cargo control room, Kunkel alerted the pumpmen that there was some trouble.

Upon entering the control room, Kunkel, to his "horror," observed that the tanks had lost "quite a bit of cargo."

00XX ADN: Chief Mate Kunkel was asleep when the tanker ran aground. Kunkel had been responsible for loading the oil the day before and, apart from catching short naps, it was the first real rest he'd had in 24 hours. He woke from the shudder of the vessel and knew something was wrong. Kunkel grabbed his survival suit and ran to the chart room where Cousins told him they were aground. After talking with Cousins, Kunkel ran to the pump room, where holding tank gauges told him the vessel was losing cargo fast. Kunkel feared for his life.

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Returning to the bridge, Kunkel found Captain Hazelwood and Cousins there. When asked what happened, the captain said that Cousins did not make the turn soon enough. The captain sent Kunkel below to watch the tank gauges and use the ship's computer to calculate its stability.

LeCain was also in bed when the EXXON VALDEZ sailed into Bligh Reef and Radtke, just shortly off duty, was getting ready for bed.

While LeCain dressed, he looked out his porthole and saw an assistant engineer opening sounding tubes to find out if water had entered the ship's dead air spaces. The assistant engineer opened one which was supposed to be empty and a geyser of oil shot at least 20 feet in the air. Apparently, shortly after that, Kunkel knocked on LeCain's door and told him the vessel was aground. LeCain walked to the bridge and saw the recording depth fathometer was reading zero. Captain Hazelwood sent him to the bow to stand by at the anchors.

Radtke felt considerable vibration for about five seconds but no list. Tired, he went to bed. Sometime later Cousins woke him with a knock on the door and told him the vessel was aground.

- 00XX        *STATE/NTSB:* Captain Hazelwood returned to the bridge shortly after the jolts were experienced. When LeCain reached the bridge, he found the captain at the port radar, Kagan at the wheel, and Cousins standing by the telegraph. LeCain was directed by Hazelwood to assist Kunkel in the control room.
- 00XX-XXXX    *NY TIMES:* Captain Hazelwood returned to the bridge of the EXXON VALDEZ to take command. He chain-smoked cigarettes on the bridge until USCG officers arrived and told him that he was in danger of setting off a blaze that would engulf the entire 987-foot ship.
- 00XX        *STATE/NTSB:* Kunkel concluded that eight cargo tanks and two ballast tanks had been damaged and that the cargo tanks had lost an average of 10 feet of cargo with approximately 67 feet of cargo remaining in each at that time. Kunkel advised the captain by telephone of his initial damage assessment and was instructed to perform stability and stress analysis.
- 0016        *ADN:* According to a lawyer representing Captain Hazelwood, at this time the vessel ran around on Bligh Reef.
- 0017.38     *VTC RADIOPHONE-T/V CHEVRON CALIFORNIA:* "CHEVRON CALIFORNIA to Valdez Traffic. Ah, abeam Cape Hinchinbrook 0015, ah, estimating Naked Island about 0200."
- 0017.53     *VTC RADIOPHONE-VTC:* "CHEVRON CALIFORNIA. Valdez Traffic, ah, roger. We have the EXXON VALDEZ outbound estimating Naked Island, Naked Island 0100, and he should be able to give you a pretty good ice report. Over."
- 0018.07     *VTC RADIOPHONE-CHEVRON CALIFORNIA:* "Yeah, OK. Sounds good. We'll talk to him on his way out then. Thank you very much."
- 0018.54     *STATE/NTSB:* The engines had been running continuously in "load program up" since the grounding and were still on bridge control. Engine revolutions had increased to 64 RPM. First Cousins and then Hazelwood called Chief Engineer Glowacki about stopping the engines. Hazelwood advised Glowacki that the ship was aground and that the engines would be stopped. During this telephone call, Hazelwood asked whether or not the engine could be used and Glowacki answered affirmatively.

0019 *NTSB FACTUAL REPORT-OPERATIONS:* The engine of the vessel EXXON VALDEZ stopped.

0020 *STATE/NTSB:* The engine room bell-logger tape shows the engines stopped.

0020 *ADN:* In the engine room, Glowacki thought the ship was still moving. He had not felt the bumps or the sudden lack of motion of the vessel but saw the controls go haywire. For some reason, the main engine's load indicator was reading much higher than normal and he was trying to figure out why. He got a call from the bridge telling him they were going to stop the main engines. Not knowing that the vessel was aground, he advised the bridge to reduce the RPM slowly. Then Hazelwood called him and told him that the vessel was aground and would be stopped. Glowacki concurred and the engine was stopped in about one minute.

0020-0035 *ADN:* Captain Hazelwood kept the tanker idling.

0026 *NTSB FACTUAL REPORT-OPERATIONS:* The master of the vessel EXXON VALDEZ informed the Vessel Traffic Service System that the vessel was aground and apparently leaking oil.

0026.41 *VTC RADIOPHONE-T/V EXXON VALDEZ:* "Yeah, Valdez Traffic? EXXON VALDEZ, over."

0026.55 *VTC RADIOPHONE-T/V EXXON VALDEZ:* "Yeah, ah, VALDEZ back. Ah, we've should be on your radar there. We've fetched up, ah, hard aground, north of Goose Island, off Bligh Reef and, ah, evidently leaking some oil and we're gonna be here for a while and, ah, if you want, ah, so you're notified. Over."

-- *STATE/NTSB:* Hazelwood addressed the VTC with somewhat slurred speech.

0027.44 *VTC RADIOPHONE-VTC:* "EXXON VALDEZ? Valdez Traffic, roger. Are you just about, ah, about a mile north of Bligh Reef?"

0027.57 *VTC RADIOPHONE-T/V EXXON VALDEZ:* "Yeah, that's correct."

0028.01 *VTC RADIOPHONE-VTC:* "Roger that."

0028.03 *VTC RADIOPHONE-T/V EXXON VALDEZ:* "OK, we'll give you a status report, ascertain the situation. Over."

0028.10 *VTC RADIOPHONE-VTC:* "Standing by."

0027 *ADN:* After the EXXON VALDEZ had been aground for more than 20 minutes, Captain Hazelwood reported the grounding to the USCG. His voice was even deeper and slower than before the accident. While the vessel was north-northwest of Goose Island when it went aground, the island was nine miles away in the darkness according to coordinates the USCG provided.

Two islands were much closer. One of those was Reef Island, which lay less than a mile southeast of the tanker. The other, much larger, was Bligh Island, which lay a half-mile behind Reef Island. The tanker was west of Bligh Island.



- *ALYESKA, EXXON*: Joseph Hazelwood, Exxon Shipping Company, captain of the EXXON VALDEZ, reported to the USCG in Valdez that the tanker was hard aground on Bligh Reef.
- *ALYESKA*: The tanker EXXON VALDEZ was leaking oil.
- 0027 *VALDEZ VANGUARD 3/24*: At least three holds on the EXXON VALDEZ were punctured, releasing 20,000 barrels - 820,000 gallons - per hour.
- 0028 *NRT/USCG*: USCG Marine Safety Office (MSO) Valdez received notification from the EXXON VALDEZ reporting vessel hard aground on Bligh Reef. The vessel was loaded with 1,264,155 barrels (53,094,510 gallons) of ANS crude oil. While maneuvering to avoid glacial ice, the vessel left the tanker lanes and struck bottom on a 30-foot charted shoal on Bligh Reef. The vessel's draft fore and aft was 56 feet. Approximately 510,000 gallons of crude oil was released. Initial assessment of pollution extent and shoreline impact could not be made with any degree of accuracy due to darkness.
- [AOSC NOTE: The chronology in Appendix A of The Exxon Valdez Oil Spill, A Report to the President, from Samuel K. Skinner, secretary, U.S. Department of Transportation, and William K. Reilly, administrator, U.S. Environmental Protection Agency, prepared by the National Response Team, May 1989 (hereafter NRT Report), was entered into this chronology before copies were received of USCG POLREPS (Pollution Reports) on which the NRT chronology was based. These POLREPS were then used to supplement, rather than replace, the NRT material already processed.*
- What needs to be mentioned here are two apparent transcription errors in the same statement in the NRT Report. POLREP ONE of March 24, from which the above paragraph at 0028 was derived, indicated approximately 150,000 barrels of crude oil -- not 510,000 gallons -- was originally released. At 42 gallons to a barrel, that would be 6,300,000 gallons spilled.]*
- 0028 *USCG POLREP ONE*: Received notification from EXXON VALDEZ reporting vessel hard aground loaded with 1,264,155 barrels of ANS crude. Approximately 150,000 barrels of crude oil initially released.
- Weather on site: Winds north at 10 knots, slight drizzle rain/snow mixed, visibility 10 miles, 33 degrees F.
- 0028 *USCG VTC VALDEZ LOG*: "T/V EXXON VALDEZ reported his vessel to be hard aground approximately one mile north of Bligh Reef in a fully laden state. Some leakage of crude oil noticeable. Position from Potato Pt. radar 204 T, 13.2 nautical miles."
- 0030 *USCG VTC VALDEZ LOG*: Commanding Officer and XO notified of grounding. Port Valdez closed to navigation by trans-Alaska pipeline system vessels by the Captain of the Port (COTP).
- [AOSC NOTE: Commanding Officer and Captain of the Port refer to Commander (CDR) Steven A. McCall, USCG commanding officer, MSO Valdez. "XO" appears to be Executive Officer, which would be Lieutenant Commander (LCDR) Thomas G. Falkenstein, MSO, Valdez. As USCG Captain of the Port (COTP), CDR McCall was also the Federal On-Scene Coordinator (FOSC) for an oil spill in Prince William Sound under federal, state, and port oil-spill contingency plans.]*

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- *ADN:* Blandford telephoned his boss, CDR McCall, awakening him from a sound sleep. "The Big One has happened," Blandford said.  
McCall directed Blandford to call the executive office, LCDR Falkenstein.
- *HW PRETRIAL-McCALL:* CDR McCall received a call at home that the EXXON VALDEZ was aground Bligh Reef. He picked up his executive officer and went to the CG station.
- *HW PRETRIAL-DELOZIER:* Chief Warrant Officer 3 (CWO3), Mark J. Delozier, then chief of the Marine Safety Department, MSO, Valdez, was home in his bed when he received the telephone call informing him that the EXXON VALDEZ was hard around.
- *NRT/USCG:* COTP, CDR McCall, at MSO, Valdez, closed Port of Valdez to all traffic. The tugboat Stalwart was dispatched from AMT to assist the EXXON VALDEZ.  
*[AOSC NOTE: According to information in the PWS Environmental Reader from USCG LCDR Falkenstein, the Stalwart was the tug that had accompanied the EXXON VALDEZ through the Narrows.]*
- 0030 *ADN:* The USCG's Blandford called the AMT, Valdez.
- *ALYESKA:* The USCG notified David Barnum, Alyeska's acting supervisor of the Marine Department's "A" Shift at the AMT of the grounding. Pursuant to USCG order, the tugboat Stalwart, on lease to Alyeska by Crowley Maritime Corporation, was dispatched from the AMT to assist and stabilize the EXXON VALDEZ.  
The tugboat Sea Flyer, also on lease to Alyeska by Crowley, was ordered to stand by at Crowley Dock, the tugboat dock at the AMT.  
Alyeska Valdez Operations Control Center (AVOCC) night personnel commenced notification procedures and mobilization of Alyeska personnel and equipment. (The AVOCC at the AMT is the center for monitoring and controlling the flow of oil through the pipeline. It is manned 24-hours a day.)  
The on-duty marine operations crew totalled 11 persons of which nine were immediately available for response.
- *ALYESKA/NTSB:* The Commanding Officer of the USCG MSO, Valdez, notified Alyeska's marine operations supervisor of the incident. At that time, Alyeska directed the nine marine operations people immediately available to initiate an oil spill response. Also at 0030, at the direction of the USCG, Alyeska dispatched the tug Stalwart to the spill site to be available to help stabilize the EXXON VALDEZ or to rescue the crew if necessary.
- *STATE/NTSB:* The CG notified Alyeska's marine operations supervisor of the grounding and release of oil from the EXXON VALDEZ. According to later testimony from Alyeska, this call set off the Alyeska mobilization process, starting with a call-out of the spill response team, regular Alyeska Marine Terminal employees purportedly cross-trained in oil spill techniques.
- *CFMC:* The USCG watchstander telephoned the AMT Supervisor, Dave Barnum, at the terminal. Barnum immediately telephoned AMT Superintendent Chuck O'Donnell. Alyeska then began its own chain of calls. This notification apparently

went in accordance with the Alyeska contingency plan and was fully completed in a timely manner.

- 0030 or 0035 *STATE/NTSB*: In the control room of the EXXON VALDEZ. Chief Mate Kunkel determined with the aid of a computer program that the stress on the vessel was exceeding acceptable limits, but that the ship still had required stability. Kunkel immediately and personally took this information to Captain Hazelwood on the bridge, arriving at either 0030 or 0035. Kunkel discussed the situation with Hazelwood and advised him that the vessel was not going to sea and not leaving the area. Kunkel was instructed to go back down to the control room to continue assessing the damage and to work up any available options.
- XXXX *ADN*: Kunkel made some calculations and determined that the vessel had positive stability. He believed there was no need for the crew to abandon the ship for the icy waters of the Sound. The captain relied on this information when he decided to try to motor the ship off the reef.  
(What Kunkel did not know until later was that one of the key gauges was jammed and giving a faulty reading. If he had known the truth about the forepeak tank in front of the vessel and the damage it sustained, his calculations would have revealed the vessel did not have positive stability. The vessel would have capsized and sunk if it had not been supported by the reef.)
- *ADN*: Kunkel was at work at his computer, calculating the stability of the ship. His first run of a loading program showed that the stability was all right but that the hull was under unacceptable levels of stress. He took the printout to the captain, and on the way nearly succumbed to petroleum fumes in a stairwell. He talked with the captain and they seemed to agree that they were not going to sea.
- 0032 *USCG VTC VALDEZ LOG*: Tug Stalwart notified to proceed to vicinity of EXXON VALDEZ for possible assistance.
- 0032 *ALYESKA*: AVOCC notified Lawrence Shier, Alyeska's manager of marine operations at the AMT, of the grounding.
- 0034 *ALYESKA*: The AVOCC notified Claude Robinson, Alyeska's engineering project manager at the terminal, of the grounding.
- 0034 *ALYESKA/NTSB*: Within the first 20-30 minutes of the collision with Bligh Reef, 115,000 barrels (4.1 million gallons) of oil gushed out of the damaged tanks of the EXXON VALDEZ.
- 0035 *ADN*: AMT superintendent, O'Donnell, had just been asleep 15 minutes when he answered his telephone to learn that the EXXON VALDEZ had "possibly" run aground. Within minutes he was called by three different people telephoning him about the accident.  
O'Donnell spoke to Shier and told him to go to the USCG MSO to see what was up. O'Donnell went back to sleep. ("When my marine manager got to the terminal, I took an hour's nap," O'Donnell said in an interview about two weeks after the spill. According to O'Donnell, Shier grabbed a sleeping bag and got some sleep a short while later in O'Donnell's office at the AMT.)

003X *CFMC*: AMT Superintendent O'Donnell sent Shier to the USCG MSO. O'Donnell has later said that he was told that the ship "possibly" had run aground, and that he wanted Shier to look into the seriousness of the situation.

0035 *ALYESKA*: Shier notified David Hutton, Crowley Maritime Corporation's tug operations manager, of the grounding to ensure that a rescue tug had been dispatched to the grounding site.

0035-0047 *EXXON/NTSB*: Various engine orders and rudder commands were given by the master of the vessel EXXON VALDEZ, but there was no subsequent change in the vessel's position as demonstrated by the position fixes taken before and after these commands were given. All engine commands were in the ahead position: no astern engine orders were given. The various rudder orders and forward and stop engine commands took place for a period of 12 minutes.

0035-0058 *ADN*: For the past 15 minutes, Captain Hazelwood had had the ship idling. But then, he began to power the ship forward in an apparent effort to wiggle the ship forward and off the reef. During this period he powered the engines up from dead slow to slow ahead to half ahead to full ahead and ordered several rudder shifts from hard left to hard right and back.

0035-0100 *STATE/NTSB*: Aboard the EXXON VALDEZ, Chief Mate Kunkel performed a further analysis of the vessel's stability and stress data.

XXXX-0100 *ADN*: Kunkel, who had returned to the cargo control room, ran the computer program again, another way, and found the instability far more questionable.

0035.67 *STATE/NTSB*: Aboard the EXXON VALDEZ, the engines were commanded from the bridge: "Dead Slow Ahead" from "Stop." Despite Kunkel's warning, these engine commands were ordered by Captain Hazelwood in an attempt to get the vessel off the reef.  
At this time, Cousins was operating the engine telegraph and Kagan was at the helm.

0035.67-  
0141.09 *STATE/NTSB*: The engine of the EXXON VALDEZ was engaged (and stayed running until stopped at 0141.09). Captain Hazelwood gave a couple of hard left and hard right rudder commands in conjunction with the engine commands. These attempts results in a very slight swing of the ship. During this time period Hazelwood also gave a series of different engine commands as he tried to maneuver the ship off Bligh Reef.

0038 *ALYESKA*: The EXXON VALDEZ reported weather conditions at Bligh Reef: Drizzle, wind at 10 knots, slight seas, visibility 10 miles.

-- *ADN*: The USCG radio operator asked the EXXON VALDEZ about the Bligh Reef weather. Captain Hazelwood reported drizzle, visibility 10 miles, 10 knots of wind, and slight seas.

0040 *ALYESKA*: The USCG ordered the Pilot boat Chirikof to Bligh Reef for reconnaissance.

- *ADN: The USCG radio operator asked the Chirikof, a boat used to ferry pilots to and from the tankers, to go to Bligh Reef for a "reconnaissance" of the situation. He also asked for the Silver Bullet, another pilot boat, to come into Valdez to pick up USCG personnel who would be going out to the ship.*
- 0040 *ADN: CDR McCall and CDR Falkenstein met coming out of their front doors -- they lived next to each other in government housing a few blocks from the USCG station.*
- 0040.24 *STATE/NTSB: Aboard the EXXON VALDEZ, the engine bell logger indicated the engine command "Slow Ahead" (31 RPM).*
- 0041 *ADN: At the USCG VTC, radio operator Blandford notified mariners that the captain of the port had ordered to port closed to any and all tankers. Incoming tankers were to drop anchor at Knowles Head (about 15 miles from where the EXXON VALDEZ was pinned on Bligh Reef).*
- 0042 *ALYESKA: The USCG ordered Port Valdez closed to tanker traffic.*
- 0XXX *AOSC NOTE: Capt. Eric S. Dohm was master aboard the CHEVRON CALIFORNIA on March 24. According to testimony Captain Dohm provided at the Pre-Trial Omnibus Hearing, Nov. 18, 1989, in the state's criminal case against Captain Hazelwood (and as indicated by his conversation with the VTC reported above), Captain Dohm expected to get an ice report from the EXXON VALDEZ when it was near Naked Island. The EXXON VALDEZ was ETA Naked Island at 0100; the CALIFORNIA was ETA Naked Island at 0200. Instead, when the Port of Valdez was closed, Dohm was told by the Valdez VTC to head for Knowles Head and anchor. (The CHEVRON CALIFORNIA was to be anchored off Knowles Head for six and one-half days, according to Dohm.*
- 0045 *ALYESKA: Before going to the AVOCC, Shier stopped at the USCG VTC in Valdez to gather the most current information from FOOSC CDR McCall. CDR McCall said there was oil in the water, no indication as to the amount. LCDR Falkenstein and CWO3 Delozier, along with Dan Lawn, Valdez District supervisor for the Alaska Department of Environmental Conservation (ADEC) in Valdez, were to be sent to assess the damage.*  
*[AOSC NOTE: Note that in Alyeska's chronology, as well as in this compiled chronology, Lawn had not yet received notice of the spill. The Center for Marine Conservation (CFMC) in its analysis places Shier at the Valdez MSO at 0100, which was after Lawn was notified.]*
- 0045 *ALYESKA: Barnum met with Alyeska's "A" shift and ordered them to: (1) check and ready all boats in the AMT's small boat harbor; (2) take all available boom to Fluor Dock, a staging and loading dock at the AMT, for loading; (3) put the Sea Packs in the water for towing to site; and (4) generally gather all necessary supplies and equipment. Barnum also contacted Crowley and arranged for them to move the contingency barge to Fluor Dock.*  
*The AVOCC notified Richard Mikkelsen, Alyeska's environmental advisor and Alyeska's on-call duty officer in Anchorage, that the EXXON VALDEZ was aground on Bligh Reef, loaded with 1.3 million barrels of oil.*  
*[AOSC NOTE: According to the NRT Report, a Sea Pack Barrier System is a 23-foot boat containing 1,475 feet of inflatable boom that is automatically deployed and towed at three to four knots per hour.*

According to a 24-hour chronology Alyeska provided the AOSC, the contingency barge, part of Alyeska's marine spill response equipment, was a floating work station. According to statements to the NTSB by Alyeska's Shier, the flat deck barge (126 feet X 34 feet), BR126-1, that was used to transport pollution cleanup equipment was damaged and did not have any equipment on board, except for possibly one box that contained some oil boom.

The barge's lack of readiness, Shier explained, resulted from its use in January 1989 in connection with a 1,700 barrel T/V THOMPSON PASS spill and another spill from the HOPE LEADER at the AMT. Afterwards, gear was taken off for cleaning. Then high winds in a late January/early February storm damaged the barge and necessitated its offloading. Although the barge was damaged above the waterline on the port bow, it was still usable, he said.

Shier did not explain why, in the intervening two months, the barge had not been repaired, reprovisioned and placed in its normal state of readiness.

According to Theo Polasek, Alyeska's vice president for operations, in testimony to a subcommittee of the Merchant Marine and Fisheries Committee of the U.S. House of Representatives in Cordova, Aug. 10, 1989, although the barge was not required to be loaded, it was Alyeska's usual practice to preposition on the barge six connexes with various types of boom, a Vikoma Sea Skimmer with its power pack, and other supplies. At the time of the EXXON VALDEZ oil spill, the barge had been off-loaded so that the barge and its equipment could be cleaned and restored following their use in the 1,700 barrel THOMPSON PASS oil spill. Reloading was delayed, he said, when a severe winter storm damaged a portion of the barge where it was moored during its restoration. Although slightly damaged, the barge was operational and indeed was used in the response on March 24.

Additional insight on the status of the barge was provided in the CFMC analysis of the EXXON VALDEZ oil spill. According to their information from Tom Brennan, Alyeska's associate manager of public relations, the barge had been damaged in a wind storm a month before the spill and had not been repaired. Because of the need for a certified marine welder to perform the repairs, Alyeska did not initiate the repairs, instead waiting for an occasion when a tanker at the terminal would need such a welder. As a result of the need for repairs, Alyeska had unloaded the barge, which normally was kept loaded with spill response equipment.

On top of all this, barge BR126-1 wasn't even supposed to be Alyeska's oil-spill contingency barge at that time. According to the Prince William Sound Conservation Alliance (PWSCA), the barge Benny Kay, the one certified by the USCG to carry oil, was still in Seattle as Alyeska could not find a tug crew willing to bring the barge through the Gulf of Alaska during the winter months.

BR126-1, PWSCA said, was a deck/cargo barge -- one to carry equipment, not oil. It was never certified by the USCG as an oil barge because it was not compartmentalized. It had no center bulk line, i.e., a wall down the center that cuts down the amount of free surface and insures the barge will not roll over.

According to magazine writer Tom Horton, Alyeska knew that the equipment barge which responded to the EXXON VALDEZ oil spill might be denied permission to hold oil recovered from the spreading slick.

*Horton wrote that Alyeska had a contingency barge, approved by the USCG to hold oil from a major spill -- 5,000 barrel capacity -- from apparently 1977 to 1982 when it got rid of that barge, replacing it with a smaller, 3,000-barrel barge that was not USCG-approved for oil-spill recovery. The approved barge had to be taken every two years to Seattle for inspection in order to retain its approved status. Whether the 3,000 barrel barge obtained in 1982 was BR126-1, Horton did not indicate.*

*Horton said that in 1987 the AMT began trying to get a new barge to hold oil from a spill but its oil company owners spent more than a year pondering the costs and seeking the best price. When finally obtained, the barge arrived in Seattle but could not reach Valdez because of the difficulties of towing it through the Gulf of Alaska in winter. After the THOMPSON PASS spill, the AMT tried to expedite delivery of its new barge. It finally did arrive in Valdez a few days after the EXXON VALDEZ oil spill.]*

- XXXX *ALYESKA/NTSB:* Alyeska's Valdez Emergency Response Center placed a call through the Valdez small-boat harbor master for additional commercial vessels which could be used in the response.
- 0048.35 *STATE/NTSB:* Aboard the EXXON VALDEZ, the engine bell logger indicated the engine command "Half Ahead" (32 RPM).
- 0050 *ALYESKA:* Mikkelsen contacted Ivan Henman, Alyeska's vice president of environment and engineering in Anchorage, who in turn notified Alyeska's President, George M. Nelson. At the same time, the AVOCC notified ADEC's Law of the spill.
- 0050 *HW PRETRIAL-DELOZIER:* CWO3 Delozier arrived at the MSO where he met with CDR McCall and LCDR Falkenstein. They discussed visiting the vessel and their responsibility to investigate a vessel aground.
- 0052 *ALYESKA:* The AVOCC notified Kenneth Hunt, response management coordinator of the U.S. Department of Interior Bureau of Land Management (USDOI-BLM) of the spill.  
*[AOSC NOTE: Hunt was the environmental protection specialist in USDOI-BLM's Branch of Pipeline Monitoring. Hunt was on Alyeska's spill notification list because the U.S. Environmental Protection Agency, which coordinated responses to land-based spills, had contracted out its spill response duties in the trans-Alaska pipeline corridor to BLM. Hunt's role when called was to determine whether BLM had jurisdiction.]*
- 0056.19 *STATE/NTSB:* Aboard the EXXON VALDEZ, the engine bell logger indicated the engine command "Full Ahead" (42 RPM).
- 0058.12 *STATE/NTSB:* Aboard the EXXON VALDEZ, the engine bell logger indicated the engine command "Full Ahead." The engines of the Exxon Valdez reached a maximum of 56 RPM.
- 0058-0140 *ADN:* Captain Hazelwood ran the engines of the EXXON VALDEZ full tilt and told the USCG by radio he was trying to get the ship off the reef. At approximately 0100' Kunkel relayed his new report of the vessel's questionable stability to the captain. Despite Kunkel's warning, the captain continued. With engines roaring at "full ahead" for another 40 minutes, he ordered the helmsman to swing the rudder left and right.

Kunkel, in the meanwhile, continued checking for damage. The ship was making strange metallic noises and the water beside the hull looked odd -- the waves weren't as sharp as they should be but it was too dark to see that what was out there was oil.

0100 *STATE/NTSB:* Aboard the EXXON VALDEZ, Chief Mate Kunkel concluded that the vessel was no longer meeting required stability and that, if not supported by the reef, the ship would capsize. Kunkel immediately relayed his revised analysis to Captain Hazelwood and recommended that the ship not leave the area. The ship was not stable to move, he advised.

0100 *EXXON/NTSB:* Captain Hazelwood instructed 2nd Mate LeCain to proceed to the bow and prepare to walk out the starboard anchor.

0100 *CFMC:* Alyeska's Shier was at the USCG MSO where he learned from CG personnel the extent of the grounding and the spill and informed them that Alyeska was mobilizing. Shier then proceeded to the AMT.

0100 *STATE/NTSB:* ADEC official Dan Lawn was notified by Alyeska of the spill. Lawn immediately notified local, regional, and headquarters ADEC staff. He then proceeded to join the Coast Guard boarding party.

-- *HW PRETRIAL-LAWN:* After receiving the call from Alyeska that the EXXON VALDEZ had run aground on Bligh Reef and was leaking oil, ADEC's Lawn immediately called the USCG Valdez MSO and got CDR McCall on the phone. Lawn told McCall that he knew we had a major problem and the spill could be catastrophic. McCall asked Lawn if he wanted to go out to the boat, and Lawn said "of course." During the conversation they spoke about using dispersants to break up the oil.

0100 *USCG VTC VALDEZ LOG:* Contacted P/V (Pilot Vessel) Bering and requested assistance in evaluating on-scene situation and to provide transportation of USCG personnel to scene.

-- *NRT/USCG, ALYESKA:* A pilot boat was made available to transport USCG and ADEC pollution personnel to the scene.

0100 *ALYESKA:* The tugboat Pathfinder, also on lease to Alyeska by Crowley Maritime Corporation, was ordered to standby.

0100 *ALYESKA:* Barnum assigned Paul Frank, the acting lead technician of Alyeska's "A" Shift, to oversee loading of the contingency barge at the Fluor Dock. As much equipment as possible was to be loaded due to the distance of the spill site from the AMT.

Kevin Bohlmann, Alyeska's "A" Shift marine technician, moved connexes (eight-foot X 15-foot steel storage containers, each weighing approximately 9,100 lbs.) by forklift from the east end of the AMT marine operations parking lot to Fluor Dock.

0105 *ALYESKA:* CDR McCall called Barnum and inquired about how much dispersant Alyeska had on hand. Barnum informed McCall that Alyeska had 50 drums. McCall responded that Alyeska should secure as much dispersant as possible. Barnum asked if McCall was now authorizing dispersant use, but McCall replied no.

-- *AOSC NOTE: According to Polasek and others at Alyeska, Alyeska had on hand in Alaska on March 24 the entire quantity of dispersants, 20,665 gallons (nearly 376 drums), required by the Contingency Plan. According to Exxon, the inventory of dispersants on hand in the entire state was 365 55-gallon drums. CFMC reports that Alyeska had only about 4,000 gallons (nearly 73 drums) at the AMT. If there were only 50 drums as Barnum said, then only 2,750 gallons were on hand.*

*Writer Tom Horton points out that it would have taken about 5,000 drums of dispersant to disperse half of the slick effectively. Additionally, Horton points out that Alyeska had no plane with which to spray dispersant with.*

0105 *NRT/USCG: Alaska Regional Response Team (ARRT) chair for this incident was notified.*

*[AOSC NOTE: The ARRT chair for a spill under USCG jurisdiction is the Chief, Marine Safety Division, of the USCG District 17 (USCGD17), at Juneau, Ak., who at that time was Captain (CAPT) Glenn Haines.]*

0105 *STATE/ADEC: AVOCC notified Dan Lawn, ADEC/Valdez, that the T/V EXXON VALDEZ was aground on Bligh Reef. Lawn telephoned the USCG and talked with CDR McCall.*

0107 *ADN: USCG CDR McCall, COTP Valdez, took command of the USCG Vessel Traffic Service Radar Center.*

0107 *ADN/VTC RADIOPHONE-VTC: USCG CDR McCall made his first radio call to the EXXON VALDEZ. "This is the captain of the port, CDR McCall. Good evening. Do you have any more of an estimate as to your situation at this time?"*

-- *ADN/VTC RADIOPHONE-T/V EXXON VALDEZ: Captain Hazelwood responded. "Ah, not at the present, Steve. Joe Hazelwood here. A little problem here with the 3rd mate, but we're working our way off the reef. We've, ah, the vessel has been holed and we're ascertaining; right now, we're trying just to get her off the reef and we'll get back to you as soon as we can."*

-- *ADN/VTC RADIOPHONE-VTC: CDR McCall answered, sounding rattled. "Roger on that. I've got, you know, we've got all our, our, plan mechanisms in place to give you what assistance we can. You know, take it slow and easy and, you know, I'm telling you the obvious, but take it slow and easy, and we're getting help out as fast as we can. And, I'd appreciate when you get around, if you can, give me a fairly good, if you can, give me an update, whenever, as to the general location, where you suspect (the damage) might be and, ah, and, ah, and, ah, the stability info. Over."*

-- *ADN/VTC RADIOPHONE-T/V EXXON VALDEZ: "We're pretty good shape right now, stability-wise, and, ah, trying to extract her off the shoal here. You can probably see me on your radar, and, ah, once we get under way, I'll let you know, do another damage control assessment."*

-- *ADN/VTC RADIOPHONE-VTC: "Before you make any drastic attempt to get away, make sure you don't, you know, start doing any ripping. You got a rising tide, you, another, about an hour and a half worth of tide in your favor. Ah, ah, once you hit that max, I wouldn't recommend doing much wiggling."*



-- *ADN/VTC RADIOPHONE-T/V EXXON VALDEZ*: "Major damage has kind of been done and we kind of rock and rolled over it. We're just kind of hung up on the stern here. We're just, ah, we'll drift over it. Ah, I'll get back to you."

-- *ADN/VTC RADIOPHONE-VTC*: "Captain of the port, out."

-- *HW PRETRIAL-DELOZIER*: The CG's CWO3 Delozier heard the radio phone call from Captain Hazelwood and that Hazelwood was going to try to get the vessel off the reef. CDR McCall was opposed to getting the vessel off the reef.

0112 *USCG VTC VALDEZ LOG*: EXXON VALDEZ position 203° T. 13.2 nautical miles from Potato Pt. Radar.

0115 *USDOJ-OEPR*: Paul Gates, regional environmental officer for Alaska in the USDOJ Office of Environmental Project Review, received notice from BLM's Hunt that the EXXON VALDEZ had run aground on Bligh Reef in Prince William Sound.

0115 *ALYESKA*: James Wilson, an Alyeska marine specialist, and Crowley's Hutton opened the Alyeska Valdez Emergency Center (AVEC).

0118 *STATE/ADEC*: ADEC's Lawn notified CDR McCall that he would accompany the pilot boat to the EXXON VALDEZ.

0118 *NTSB INTERVIEW-SHIER*: Alyeska's Shier returned to the AMT to find that preparations were in progress to mobilize equipment on the contingency barge to respond to the spill.

0120 *STATE/ADEC*: ADEC's Lawn telephoned Bill Lamoreaux, South Central Regional Office supervisor of ADEC, in Anchorage and requested that Doug Lockwood, ADEC/Kenai; John Janssen, ADEC/Fairbanks; Joe LeBeau, ADEC/Wasilla (environmental field officer); Al Kegler, ADEC/Juneau; and Joe Sautner, ADEC/Anchorage, be sent to Valdez.

-- *HW PRETRIAL-LAWN*: Lawn called his supervisor in Anchorage (Bill Lamoreaux) and gave him the information he had. Lawn told Lamoreaux that the spill was major and for Lamoreaux to call ADEC's major response people and have them on their way. Lamoreaux asked Lawn if it could wait for morning. Lawn said no. He told Lamoreaux that he needed all of the state's oil response experts, including the attorney general's office. This initial call to Lamoreaux lasted about five minutes. Lawn then went to his office in Valdez and called Janssen, his agency's oil spill expert, in Fairbanks and spoke with him for 10 to 15 minutes.

Lawn then went to the USCG MSO. At the MSO, he met with CWO3 Delozier. They discussed the use of dispersants and whether the ship could be rocked back and forth at high tide to get it off the reef.

0123 *ALYESKA, EXXON*: Alyeska's President, George M. Nelson, notified Darrell Warner, president of Exxon Pipeline Company, in Houston that the EXXON VALDEZ had run aground in Prince William Sound.

0125 *EXXON*: Exxon's Warner notified Frank Iarossi, president of Exxon Shipping Company, in Houston and gave him Nelson's telephone number.

Iarossi called Ulyesse J. LeGrange, Exxon Company, U.S.A.'s, senior vice president, in Houston, and Harvey J. Borgen, Exxon Shipping Company's West Coast fleet manager, telling Borgen to contact the EXXON VALDEZ.

Iarossi called Alyeska's Nelson in Anchorage; William G. Duncan, Exxon Shipping Company's senior marine advisor, at home; Borgen again; then Stuart W. McRobbie, an Exxon Shipping Company ship group coordinator, for vessel status; then Thomas W. Gillette, an Exxon Shipping Company external affairs consultant, at home; and then Alyeska's Nelson for an update.

Iarossi received a call from Michael C. Quinn, Exxon Company, U.S.A.'s, public affairs western division manager.

- 0130 *ALYESKA*: Henman opened the Alyeska Anchorage Emergency Center (AAEC).
- 0130 *ALYESKA*: The mate and deckhand of the tugboat Sea Flyer departed on line boats to move the contingency barge from the AMT's small boat harbor to Fluor Dock where equipment was being staged.
- 0135 *ALYESKA*: Mikkelsen arrived at the AAEC.
- 0136 *ALYESKA*: Nelson called the AVEC for an update and ordered that all media inquiries be referred to the AAEC.
- 0138 *ALYESKA*: Shier arrived at the AMT. Checking in at the Terminal gate, he met Glenn Meidinger, an Alyeska maintenance technician on the "A" Shift, and gave him a ride into the AMT.
- 0140 *EXXON*: Exxon's Borgen telephoned Paul B. Myers, an Exxon Shipping Company ship group coordinator, and told him to call the EXXON VALDEZ right away. Myers called the vessel and spoke to Captain Hazelwood confirming the grounding and damage: water in forepeak, No. Two starboard tank, ship stability a concern.
- 0140 *ADN*: For over an hour Captain Hazelwood had been trying to power and turn the ship off the reef. According to crewmen, while the ship never seemed to move forward, it did pivot on the rock on which it was grounded and changed headings a few times.
- 0140.39 *STATE/NTSB*: Aboard the EXXON VALDEZ, the engine bell logger indicated the engine command "Slow Ahead" (43 RPM).
- 0140.43 *STATE/NTSB*: Aboard the EXXON VALDEZ, the engine bell logger indicated the engine command "Dead Slow Ahead" (34 RPM).
- 0141.09 *STATE/NTSB*: Aboard the EXXON VALDEZ, the engine bell logger indicated the engine command "Stop" (minus 1 RPM). The engines of the EXXON VALDEZ, which had been engaged since approximately 0036, were no longer running.
- 0145 *ADN*: Captain Hazelwood gave up on his efforts to move the T/V EXXON VALDEZ off Bligh Reef.
- 0145 *EXXON*: Borgen called Bob Arts, Alaska Maritime Agencies (Exxon's agent in Valdez). Arts was to check with the USCG VTC and call right back.
- Arts returned the call and reported that the EXXON VALDEZ went aground 0028 on Bligh Reef, 12 foot tide, maneuvering in heavy ice.

0145-0330 *STATE/ADEC*: ADEC's Lamoreaux telephoned ADEC staffers as requested by Lawn. He also telephoned ADEC's Lynn Kent, chief of the Oil and Hazardous Substance Response Section, in Juneau, who called Amy Kyle, deputy commissioner, in Juneau and others.

0148 *NRT/USCG*: MSO Valdez contacted the USCG Air Station Kodiak requesting helicopter overflight at first light.

-- *ALYESKA*: The USCG in Valdez contacted the USCG Air Station at Kodiak to request a helicopter overflight at first light.

-- *AOSC NOTE*: On March 24 Valdez sunrise is 0634 while civil twilight begins at 0551.

0148 *ALYESKA*: Mac McKay, Alyeska's "A" Shift marine maintenance supervisor, arrived at the AMT and reported to Shier. McKay, Barnum and Shier spent approximately one-half hour discussing the situation.

0150 *STATE/ADEC*: ADEC's Lawn called Lamoreaux to ask that Lamoreaux contact Tim Law and Tom McCarty, ADEC/Valdez, who were in Anchorage for training.

0159 *ADN/VTC RADIOPHONE-VTC*: CDR McCall radioed again to the EXXON VALDEZ. "Any update, Captain?"

-- *ADN/VTC RADIOPHONE-T/V EXXON VALDEZ*: A new unidentified voice on the EXXON VALDEZ responded. "We're still surveying tanks, trying to assess the damage."

-- *ADN/VTC RADIOPHONE-VTC*: "Roger. Do you have capacity on board to internally transfer if you need to?"

-- *ADN/VTC RADIOPHONE-T/V EXXON VALDEZ*: "Yes, we could do that."

-- *ADN/VTC RADIOPHONE-VTC*: "OK, that's, obviously, you know better than I do, but that's highly recommended if, once you've determined which tanks are holed, to drop the head if you can."  
(ADN: CDR McCall's statement referred to reducing the level of oil in the leaking tanks by moving oil to the others.)

-- *ADN/VTC RADIOPHONE-T/V EXXON VALDEZ*: "Yes, roger that."

-- *ADN/VTC RADIOPHONE-VTC*: "Are you still working, trying to get off?"

-- *ADN/VTC RADIOPHONE-T/V EXXON VALDEZ*: "No, our engines are stopped right now. We're going to wait 'til there's a little more water underneath us."

0159 *STATE/NTSB*: When USCG CDR McCall again called the EXXON VALDEZ, he was advised by someone other than Captain Hazelwood that the engines had been stopped.

0200 *ALYESKA*: Andrew Day, Alyeska's "B" Shift marine maintenance technician, arrived at the Terminal and was sent to the Emergency Response Building at the

AMT, where much of the emergency response equipment was stored, in order to ready equipment. One priority was staging the Yokohama fenders, large inflatable bumpers than hang over a ship's side to protect it during lightering (the process of bringing two ships or barges alongside each other so that oil may be pumped from one vessel into another through lightering hoses).

The contingency barge arrived at Fluor Dock for loading.

-- *ALYESKA-POLASEK:* Marine technicians had to move the contingency barge from its protected moorage location in a small boat harbor to the Fluor Dock where the loading crane was located.

-- *AOSC NOTE:* According to statements to the NTSB by Alyeska's Shier, besides being unloaded, the contingency barge was not at a dock where a heavy crane could be employed to load the bulky clean-up equipment on the barge. As a result, the barge first had to be moved to a dock location with a crane. Then the stored contingency equipment had to be moved by road by both truck and forklift and be loaded on the barge. Approximately 50,000 pounds of equipment were then loaded on the barge.

According to information developed by CFMC, much of the needed equipment was located in a warehouse at the Alyeska Marine Terminal. Open-water skimmers and booms were stored under stacks of containment boom in a warehouse, and considerable time was spent clearing the containment boom out of the way. Fenders used to hold ships apart during lightering operations initially could not be located, but eventually were found buried under some snow. The night crew spent much of the remainder of their shift locating equipment and preparing it for deployment. Some booms needed repairs, and this was undertaken prior to loading them on a barge. Some response boats needed to have their gas tanks filled, and anchors for the booms needed to be fabricated.

Note that at this time, Alyeska's own oil spill contingency response plan provided for a five-hour response time of a loaded contingency barge to a spill site from the time of notification of an oil spill.

0200 *EXXON:* Alyeska's Nelson called Exxon's Warner again with a further report: High tide in Valdez. EXXON VALDEZ sounded and ullaged all tanks. Vessel stability was a concern.

0202 *ALYESKA:* The AVEC received a status report from Crowley concerning additional Crowley vessels and barges located in Alaska.

0206 *NRT/USCG:* Attempt to refloat EXXON VALDEZ at high tide was unsuccessful.  
[*AOSC NOTE:* POLREP One had this time as 0205. Low tide at 0821, next high tide at 1433.]

-- *ALYESKA:* High tide failed to refloat the EXXON Valdez.

0209 *ALYESKA:* Shier directed the AAEC to contact Biegert Aviation to obtain additional dispersants and application systems.

0210 *ALYESKA:* Alyeska's Logistical Support Group in Anchorage contacted Security Aviation and ERA Aviation to locate all available aircraft and crews to place under contract to Alyeska.

0210 *EXXON*: Warner requested Iarossi talk directly to Nelson. Iarossi called Borgen back; Borgen relayed information received from Myers.

0215 *ALYESKA*: Ben Hilliker, Alyeska's manager of environmental impact in Anchorage, reported to the AAEC and was informed that the extent of damage to the tanker *EXXON VALDEZ* was still unknown.

0225 *ALYESKA*: Jerry Jernigan, Alyeska's purchasing supervisor, Anchorage, was ordered to report to Alyeska's Anchorage offices to begin contract efforts.

0225 *ADN*: The USCG called the *Chirikof*, the pilot boat sent to reconnoiter the situation at the *EXXON VALDEZ*, and asked for a report.

-- *ADN/VTC RADIOPHONE-M/V CHIRIKOF*: The *Chirikof* answered the USCG VTC. "I just made a little survey around the ship here, around the edge of the shoal. There's quite a bit of oil extending down more than half, about half a mile or so south of the ship, and quite a bit out that way. Looks like it's all heading that direction, too. Nothing headed north."

-- *ADN*: The USCG VTC then verified with the *Chirikof* that the Bligh Reef light (about a mile west-southwest of the *EXXON VALDEZ*) and the Busby Island light (about three miles north-northeast) were still functioning.

0227 *NRT/USCG*: Motor Vessel (M/V) *Chirikof* reported oil slick to half mile south of *EXXON VALDEZ*.

-- *ALYESKA*: The *Chirikof*'s crew reported that the oil slick extended a half mile south of the ship.  
*[AOSC NOTE: POLREP One identified this vessel as the Sherikoff, the NRT Report changed that to Shelikoff, and ADFG and Alyeska identified it as the Chirikof. A check with the Southwest Pilots Association in Valdez indicated that if it was a pilot boat it was the Chirikof.]*

0230 *ALYESKA*: The AVEC received an updated report that the *EXXON VALDEZ* was aground in six fathoms of water.

0230 *ALYESKA*: The first Sea Pack from the Ballast Water Treatment Building was placed in the water and moored at the Valdez Small Boat Harbor.  
 Bohlmann finished moving four connexes from the Emergency Response Building to Fluor Dock with a forklift. He continued moving supplies to the contingency barge and assisted in removal of snow from the barge until his shift ended.  
 Two Alyeska "C" Shift marine technicians were on the barge clearing one to two inches of snow and slush away from the mounting rings which were to be used for lashing the Vikoma Sea Skimmer and HIAB. Personnel of Earthmovers, an Alyeska contractor that furnished heavy-machinery operators, were moving this equipment from the temporary shop building to Fluor Dock.  
*[AOSC NOTE: According to the NRT Report, the Vikoma Sea Skimmer utilizes a rotary disc system to attract oil. In optimal conditions, the best recovery rate for this unit is 220 gallons per minute. According to Alyeska, "HIAB" is the name of the hydraulic unit used to place the Vikoma Sea Skimmer into the water and thence to operate it.]*

-- *ALYESKA-POLASEK*: Loading of the contingency barge was hampered by the prevailing winter conditions, including snow and ice at the dock base and on the barge, and darkness. Equipment was transported by forklift and truck to the dock and loaded by crane onto the barge.

-- *AOSC NOTE*: According to the CFMC, one problem Alyeska ran into was the fact that there was only one person qualified to operate the forklift used to move the equipment from the warehouse to the barge and the crane used to load the equipment onto the barge. This person was required to move pallets of equipment with the forklift, then load the pallets onto the barge with the crane, and then drive the forklift back to the warehouse to pick up another pallet of equipment.

According to the Anchorage Daily News (ADN), for several hours, only one person was on hand to drive the forklift and operate the loading crane. Workers described a scene that could have come from a Charlie Chaplin movie: The operator would snag containers of boom with the forklift, drive to the barge, climb into the crane to swing each container onto the deck, jump from the crane to the forklift, and speed back to the warehouse for another pickup.

0230 *EXXON*: Arts called Borgen from the VTC. CDR McCall and Alyeska's Shier were there. The EXXON VALDEZ was to lighter to the EXXON BATON ROUGE.

0230 *NTSB INTERVIEW-SHIER*: Alyeska's Shier found out about the size of the spill.

0230 *ADN*: State Fish and Game Trooper Mike Fox, the only state law enforcement officer in Valdez, received a phone call from the USCG, a simple alert that an oil spill had occurred.

0230-0330 *ALYESKA*: Within the hour, Robinson (AVEC) ran oil spill computer models which indicated that the oil was headed away from land and should not impact the shoreline for several days.

0236 *ALYESKA*: Robinson ordered that Al Allen of Spiltec, an outside consultant to Alyeska on dispersants and burning, be notified and brought in for consultation purposes.

0238 *ALYESKA, EXXON*: Shier orally requested permission from CDR McCall to use dispersants.

0238 *ALYESKA*: CDR McCall informed the AVEC that the EXXON VALDEZ was still aground, that an oil sheen was on the water, and more oil was leaking.

0245 *ALYESKA*: The tugboat Stalwart arrived at the EXXON VALDEZ to stabilize the ship and rescue the crew if necessary.

0249 *NRT/USCG, ALYESKA, NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE*: Assistance was requested from USCG Pacific Area (PACAREA) Pollution Strike Team, San Francisco.

[*AOSC NOTE*: CFMC explained that the Strike Team is a USCG unit with a high level of training and expertise in pollution response matters. The Strike Team maintains its own pollution response equipment, including pumps used for lightering.]

DAY ONE (Friday, March 24)

-- *USEPA*: CDR McCall requested the assistance of the PACAREA Strike Team.

-- *ALYESKA*: Four USCG Strike Team members were scheduled to arrive at Cordova airport at 1530.

0254 *ALYESKA*: Theo Polasek, Alyeska's vice president of operations, Anchorage, reported to the AAEC.

0256 *ALYESKA*: Shier and Nelson discussed use of equipment and people and decided to call out 11 additional Alyeska personnel and 15 contractor personnel.  
The AVEC received a weather update: Winds north at 10 knots, visibility 10 miles, lots of ice.

0300 *ALYESKA*: An inventory was conducted of all radios, battery chargers and other necessary equipment needed for communications.  
The AVEC contacted John Runnels, Alyeska's "D" Shift supervisor of marine operations, Valdez, and ordered him to mobilize his off-shift crew.  
An additional tugboat, the Kavik, was leased from Crowley.  
The AVEC contacted Price AHTNA Construction Company, a company that supplies contract laborers for Alyeska, and requested 15 additional people. Alyeska began contracting with private vessels to supplement the response to the spill.

0300 *EXXON*: Borgen discussed matters with Myers.

0305 *ALYESKA*: Exxon Shipping Company President Iarossi contacted the AAEC.

0310 *ALYESKA*: Alyeska's Logistical Support in Anchorage received its list of available aircraft from ERA Aviation and informed ERA that Alyeska would place all available aircraft under charter.

0310 *EXXON*: Iarossi called Borgen again and asked him to call Alyeska's Nelson.

0315 *ALYESKA*: Lamont Staker, supervisor of the "B" Shift marine maintenance crew in Valdez, was instructed to have his shift report to duty.  
McKay called two of his "A" Shift technicians and directed them to report to the AMT to assist in rigging equipment for loading onto the contingency barge.

0319 *ADN/VTC RADIOPHONE-VTC*: CDR McCall was again on the radio to the EXXON VALDEZ. "Have you had a chance to detect whether or not any noticeable amount of oil has dropped out of any tanks and, if so, which tanks are they?" he asked.

-- *ADN*: Chief Mate Kunkel was gauging the tanks when CDR McCall radioed the ship.

0320 *EXXON*: Borgen called Craig Rassinier, Exxon Shipping Company's environmental conservation coordinator, about Alyeska fenders for lightering. Rassinier made contact with James L. O'Brien of O'Brien Oil Pollution Service, an oil-spill consultant.

0320 *ALYESKA*: LCDR Falkenstein and CWO3 Delozier from the USCG and ADEC's Lawn boarded the EXXON VALDEZ and were escorted to the bridge by a crew member.

*[AOSC NOTE: Alyeska's chronology has this time as 0320. but see below -- the "Bridge Rough Log" of the T/V EXXON VALDEZ does not have the USCG boarding until 0338.]*

0321 *ADN/VTC RADIOPHONE-T/V EXXON VALDEZ: Two minutes after CDR McCall's telephone call to the EXXON VALDEZ, someone on the ship, but not Captain Hazelwood, called the VTC back. "Ah, the initial figure is 138,000, and the chief mate's taking another check on it right now."*

-- *ADN/VTC RADIOPHONE-VTC: "Which tank is that, or tanks?"*

-- *ADN/VTC RADIOPHONE-T/V EXXON VALDEZ: "Right now, our starboard slop tank, two starboard wing tanks, and possibly five center."*

-- *ADN/VTC RADIOPHONE-VTC: "You said 'starboard'?"*  
*(CDR McCall was puzzled that the ship had not hit the reef from the side that runs parallel to the tanker lane.)*

-- *ADN/VTC RADIOPHONE-T/V EXXON VALDEZ: "Roger."*

-- *ADN/VTC RADIOPHONE-VTC: CDR McCall (gloomily) - "Roger on that, and that was barrels, correct?"*

-- *ADN/VTC RADIOPHONE-T/V EXXON VALDEZ: "That's correct."*

0321 *ALYESKA/NTSB: Alyeska used the information that at least 138,000 barrels had escaped from the EXXON VALDEZ, along with current weather data, to generate a computer projection of the path of the oil slick. The projection indicated that the oil slick would drift into the shipping lanes and away from the shoreline where the EXXON VALDEZ was stranded and that most of the shoreline of PWS would not be threatened for several days.*

0323 *NRT/USCG: USCG personnel were now aboard EXXON VALDEZ. Tanks gauged: about 138,000 barrels (5.8 million gallons) lost from wing tanks 1, 3, 5 starboard; starboard slop tanks; and number 5 center tanks.*

-- *USCG POLREP ONE: USCG personnel on board the EXXON VALDEZ gauged the tanks and reported approximately 138,000 barrels of crude lost. Cargo loss was noted in "wing tanks nr 1, 3, 5 starboard; starboard slop tank; and nr 5 center tanks."*

-- *AOSC NOTE: At first appearance, the sequence above reads as though CDR McCall phoned the vessel at 0319, the vessel called him back with a report on the cargo loss about 0321 at which time the CG had just boarded the vessel, CDR McCall's conversation with the vessel ended, at that same time the CG was checking the tanks, and, at 0323, the CG called the VTC.*

*It appears to the compiler of this chronology that this is a wrong scenario. The USCG, as will be seen, was not yet aboard the vessel, and would not be for another 15 minutes. Consequently, the cargo-loss information provided was from the vessel's own engineering department and it was a crew member who passed the information on the CRD McColl.*

*It should be kept in mind that at this point the number of damaged tanks was not known and statements that had been made were subject to different interpretations.*

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*On the starboard side of the vessel, were three starboard/wing tanks. Between the aft and fore ballast tanks were five tanks in this order: cargo tank, ballast/slop tank, cargo tank, ballast/slop tank, and cargo tank. Both the statement from the vessel crew member and POLREP ONE imply that only one "slop tank" was damaged. The NRT Report stated "slop tanks." It seems to us more likely, given the location of these tanks, that the plural was correct at this time.*

*The compiler of this chronology suggests that the crewman's reference to "possibly five center" was a direct reference to No. Five center tank, and that it was not known at that time that all five of the center tanks had been damaged.*

*It was to be confirmed that the EXXON VALDEZ ruptured the three cargo tanks and two water ballast tanks along the starboard side of the vessel, the fore water ballast tank (which extended across the vessel from starboard to port), and all five of the center cargo tanks. In other words, eight of 11 cargo tanks and three salt-water ballast tanks were later confirmed damaged.*

XXXX

**ALYESKA:** Falkenstein and/or Delozier gauged the vessel's tanks and reported that approximately 138,000 barrels of crude had been spilled. Falkenstein and/or Delozier informed Alyeska that, although the tanker was stabilized, the starboard slop tank, the wing tank, and "5" center tanks were damaged.

*[AOSC NOTE: Alyeska had this entry in its chronology at 0320. The compiler of this chronology suggests that this section of Alyeska's chronology was put together after the fact and extrapolated from the POLREP. Alyeska's reference here was most likely to the crew's own gauging of the vessel, just described above, which would put this chronology entry at 0323 instead of 0320. Also, it appears that Alyeska's chronology has a word-processing error in that it indicates a "wing tank," not "tanks," were damaged.]*

0323

**NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE:** The executive officer and the senior investigating officer from the USCG MSO Valdez arrived on board the EXXON VALDEZ to assess the situation and commence the accident investigation.

*[AOSC NOTE: It appears that this information was also based on the POLREP and is not the correct arrival time of the USCG investigators.]*

0324

**ALYESKA:** Shier advised Nelson and Henman that the USCG reported 138,000 barrels had already spilled, and that the tanker should lose more oil.

0325

**ALYESKA:** The AVEC received a weather update: Wind east at 15 knots, three foot seas over the next 48 hours, winds may shift from northeast to southeast.

0327

**ALYESKA:** Shier informed the AAEC that the USCG and ADEC were at the spill site, that Alyeska had called in sufficient personnel to mobilize all available equipment at first light, and that he had directed that the cooperatives, Cook Inlet Response Organization (CIRO) and Alaska Clean Seas (at Prudhoe Bay) be contacted for more skimming equipment. Twenty to 25 people had been called to report in at 0600, and there were off-duty personnel as well. Polasek advised Shier to protect the shoreline and recover as much oil as possible, and that Exxon was preparing a team to be dispatched to the tanker. Harvey Borgen, Exxon Shipping Company's West Coast fleet manager, would be in charge of that team.

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0330 *ALYESKA*: Shift Supervisor Runnels contacted seven of the 11 people on his shift and ordered them to report to the AMT.

0330 *EXXON*: Alyeska's Nelson called Borgen and reported 138,000 barrels spilled.

0330 *NRT/USCG*: Initial response efforts at the Port of Valdez under Alyeska's control were hampered by equipment casualties and holiday personnel shortages (i.e., it was Good Friday-Easter weekend). As response personnel arrived at the Alyeska Terminal, however, Alyeska was unable to comply with the response timeliness provision in its own contingency plan that called for initial response at the vessel within five hours of first notification.

Alyeska's only containment barge was tied up at AMT, Valdez, stripped for repairs. The barge was not certified by the USCG to receive oil, but it could carry recovery bladders. Alaska's state contingency plan required Alyeska to notify the state when response equipment was taken out of service. Satisfied the barge was seaworthy without repairs, Alyeska had not done so.

Before the barge could be used, pollution gear had to be loaded. Crane riggers were called at 0330. By this time, USCG estimated 5.8 million gallons already discharged from the tanks.

0330 *STATE/ADEC*: Reached by Lamoreaux, ADEC's LeBeau called Dick McKean, ADEC/Wasilla.

0330 *HW PRETRIAL-STATE*: The CHEVRON CALIFORNIA was three miles away from the EXXON VALDEZ.

0335 *HW PRETRIAL-LAWN*: The boat that ADEC's Lawn and the two USCG investigators were on passed around the back side of the EXXON VALDEZ where Lawn took some video coverage. He and the USCG personnel then transferred to a larger pilot vessel in order to ride the oil, which was at an elevation higher than the water, to the EXXON VALDEZ so they could board the tanker.

-- *ADN*: According to Lawn, the oil was rolling out of the ruptured hull when they pulled alongside. "It was kind of like a boiling cauldron," he said. The oil was "rolling up, boiling, and cooking," around the ship.

Lawn recalled climbing up the pilot's ladder and seeing oil in the water two feet higher than the surrounding seas, "a wave of thick black crude flowing from the ship into the night."

0338 *T/V EXXON VALDEZ BRIDGE ROUGH LOG*: USCG boarding.

-- *EXXON*: USCG LCDR Falkenstein arrived at the EXXON VALDEZ to review the situation.

-- *STATE/NTSB*: LCDR Falkenstein (executive officer), CWO Delozier (investigating officer) and Lawn boarded the EXXON VALDEZ and were escorted to the bridge by an unidentified crew member. They found Captain Hazelwood at the port-side bridge window.

The boarding party traveled to the scene of the grounding on the pilot boat, Silver Bullet and subsequently transferred to the Chirikof before boarding the EXXON VALDEZ. Upon boarding, they observed a large quantity of oil in the

vicinity of the EXXON VALDEZ. LCDR Falkenstein later testified that, upon his arrival, oil was boiling along the entire starboard side of the vessel.

Upon arrival on board, Lawn inquired of the chief mate the amount of oil which had been discharged from the vessel.

XXXX *HW PRETRIAL-LAWN:* Arriving on board the EXXON VALDEZ, Lawn saw Captain Hazelwood standing by the window, stroking his beard. Lawn left Hazelwood to the USCG: he didn't get close enough to him detect any odor of alcohol. Lawn went to deal with the chief mate who was gauging the oil.

XXXX *HW PRETRIAL-DELOZIER:* Arriving at the EXXON VALDEZ, CWO3 Delozier went up to the wheel house where a crew member introduced him to the others. Delozier noticed a strong odor of alcohol (on the captain). LCDR Falkenstein and Delozier divided up responsibilities. Falkenstein took marine salvage, Delozier marine casualty.

03XX *STATE/NTSB:* LCDR Falkenstein proceeded to question Captain Hazelwood about the grounding. There was a general discussion of the grounding, the stability of the ship, the crew, and attempts to mitigate the damage. During this conversation the Coast Guard investigators detected the "obvious" and "very intense" smell of alcohol on Hazelwood's breath. So compelling was the odor that at the first opportunity Delozier asked Falkenstein to step out on the bridge to discuss his observation.

Falkenstein and Delozier agreed that alcohol was on Hazelwood's breath and that an alcohol test would be appropriate.

0340 *HW PRETRIAL-DELOZIER:* CWO3 Delozier was on the bridge with Falkenstein when he smelled alcohol on Captain Hazelwood's breath.

0345 *ALYESKA:* Spiltec's Allen was contacted and told to prepare to fly to Valdez.

0350 *ALYESKA:* AMT Superintendent O'Donnell and Shift Supervisor Runnels reported to the AVEC.

0350 *EXXON:* Myers called John C. Klepper, Exxon Shipping Company's transportation coordinator, and Stuart W. McRobbie, an Exxon Shipping Company ship group coordinator, re EXXON BATON ROUGE lightering.

0354 *EXXON:* Rassinier notified Clean Bay, a San Francisco oil spill cooperative group, to place equipment (booms, skimmers, etc.) and operators on standby for dispatch to Valdez.

0400 *EXXON:* Iarossi, Duncan, and Gillette arrived at Exxon Shipping Company's offices (in Houston). Rassinier notified Southern Air Transport (SAT) of need for a plane to mobilize an Aerial/Dispersant Delivery System Package (ADDSPAC) unit in Phoenix and dispersants from Houston.

0400 *ALYESKA, STATE/NTSB:* The USCG's Falkenstein and Delozier contacted CDR McCall and requested a medical technician be dispatched to the vessel to take blood and urine samples.

-- *HW PRETRIAL-DELOZIER:* CWO3 Delozier phoned his boss (CDR McCall) and said he needed a medic or law enforcement person on the EXXON VALDEZ to take blood samples.

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-- *STATE/NTSB:* CDR McCall agreed to the testing of Hazelwood. It was agreed not to remove Hazelwood from the ship since he was presumed to be the person most knowledgeable of the ship's condition.

Delozier observed Hazelwood smoking on the bridge and became concerned about the fire hazard associated with the hydro-carbon fumes. Delozier went back to the bridge to inform the captain that smoking would not be a very prudent activity to continue.

Lawn asked the chief mate of the EXXON VALDEZ to continue gauging the tanker every two hours.

0400 *EXXON/NTSB:* Shortly after 0400, approximately four hours after the grounding, CWO Delozier described the odor of alcohol on the breath of Captain Hazelwood as "very intense" and "very, very noticeable." The record is silent on whether Captain Hazelwood consumed alcohol after the grounding.

Shore-based Exxon Shipping Company personnel had no indications as of 0400 hours that the master or anyone on board the EXXON VALDEZ might have been drinking.

0400 *STATE/ADEC:* Lawn called Lamoreaux in Anchorage and updated him on the situation.

-- *HW PRETRIAL-LAWN:* Lawn called his boss and suggested that he hire additional people to help in Valdez.

-- *ADN:* Lawn called Alyeska from the tanker's satellite phone. He spoke with Shier and emphasized the gravity of the situation. Lawn said the vessel was still leaking and that Alyeska needed to get coming every piece of equipment it had. Lawn was assured the response equipment was on its way.

0400 *ALYESKA:* Exxon's Borgen reported to the AAEC that Exxon had mobilized a response team, that Biegert Aviation has been contacted for dispersants, and that Don Cornett of Exxon public relations, was en route to Valdez.

Alyeska's AMT Superintendent, O'Donnell, authorized Susan Smith, a materials handler at the Alyeska Warehouse, to issue any items needed. Edward Kiml, Alyeska's security supervisor at the AMT, called the owner of the vessel Vince Peede, in order to lease it to transport personnel to the spill site. When Kiml got no answer, he called the Valdez police who went to the owner's house and woke him. Five to 10 minutes later, the owner called Kiml and Alyeska arranged the lease.

*[AOSC NOTE: Though Alyeska identified Cornett as Exxon public relations, Cornett was then, and had been for the past three years, Exxon's chief official in Alaska. Interestingly, Exxon's own chronology of the first days after the spill doesn't list Cornett. In fact, it doesn't show anyone with Exxon in Alaska being called by Houston. John Clough, Alaska legal counsel, is the only Alaska official mentioned, and that was because Clough and Rassinier were at a meeting with state officials on Saturday.]*

0400 *NRT/USCG:* Stability of EXXON VALDEZ was the USCG's highest priority. The biggest concern was that the vessel might capsize and break up, spilling the entire 53 million gallons of oil. Word was passed to Alyeska to assemble oil transfer (lightering) equipment (six-inch hoses and fenders to transfer oil from EXXON VALDEZ to recovery vessels, bladders or other containers).

0400-0600 **ALYESKA:** Between 0400 and 0600, Henman directed Hilliker to contact Biegert Aviation to arrange for aircraft for dispersants and members of the Logistics Support Group arranged to stage all available dispersants in Alaska in Anchorage.  
*[AOSC NOTE: Horton points out that dispersant spray planes and their pilots must be FAA-certified for the hazardous, low-level flying required. Very few of either exist on short notice anywhere in the world.]*

0400-0600 **STATE/NTSB:** Between 0400 and 0600, CWO3 Delozier investigated the extent of the damage to the vessel. Delozier also looked through the master's office and observed no signs of alcohol use. Later, Delozier observed six "Mousy" (low-alcoholic) beer bottles in the master's stateroom refrigerator and two empty "Mousy" beer bottles in a trash can. He searched a cabinet adjacent to the refrigerator but not elsewhere for alcohol.

0401 **ALYESKA:** Polasek informed Exxon's Borgen that CDR McCall would make the decision (on whether) to use dispersants and offered the assistance of Alyeska in arranging for skimmers and sorbents (i.e., material that would absorb oil).

0401 **ADN:** A formal "oil spill notification" rolled off Teletype machines at Alyeska offices up and down the pipeline and in Anchorage.  
 "This is not a drill," the message began. It put the size of the spill at 138,000 barrels, by several orders of magnitude the biggest spill Alyeska had ever seen.

0405 **EXXON:** Rassinier began to alert Exxon's Inter-functional Oil Spill Response Team.  
*[AOSC NOTE: Exxon's spill response team had only recently returned from Oahu Island, Hawaii, where, on March 2, an Exxon tanker spilled 35,000 gallons of Alaska crude oil when the tanker grounded itself on a coral reef after the ship was blown from its mooring during heavy weather.]*

0407 **CFMC:** The Coast Guard called the EXXON VALDEZ and asked how much lightering hose was on board. The EXXON VALDEZ replied that it had two hoses on board, each six inches in diameter and 50 feet long.

0410 **ALYESKA:** Henman informed Harold Heinze, president of transportation, Atlantic Richfield Company (ARCO), Long Beach, Calif., that equipment was going out and that Alyeska had suggested to Exxon that Exxon arrange for dispersants from Arizona.  
 Alyeska arranged to send a plane from Anchorage at 0630 to conduct a visual assessment of the spill.

0410 **EXXON:** Rassinier reported to Borgen that SAT in California was on standby. He was trying to contact Biegert Aviation, owner of an ADDSPAC. The EXXON BATON ROUGE was notified to prepare for lightering of the EXXON VALDEZ.

0414 **NRT/USCG, ALYESKA:** The USCG contacted the oil tanker EXXON BATON ROUGE and instructed it to proceed to the grounding site to prepare for lightering (oil transfer operations) of the EXXON VALDEZ.

-- **ALYESKA:** Estimated time of arrival (ETA) of the EXXON BATON ROUGE was 1100.

0415 **ALYESKA:** The USCG directed Alyeska to treat lightering as the number one priority and to transport lightering equipment to the spill site. The USCG, however,

was unable to advise the AVEC how close the EXXON BATON ROUGE would be able to maneuver to the EXXON VALDEZ, creating uncertainty as to how much lightering hose was needed.

Runnels arrived at the AMT.

-- *ALYESKA-POLASEK:* The transportation of the contingency barge to the spill site was further complicated by the higher priority attached to lightering the EXXON VALDEZ. This task required Alyeska to redirect cranes that were in the process of loading the contingency barge to the loading of lightering equipment at another terminal dock.

-- *CFMC:* The USCG called the AMT and told Alyeska to remove the lightering gear already loaded onto the barge and place it on a tug boat so it could be taken to the grounding scene more quickly. Alyeska recalled the tug Sea Flyer, which it had just dispatched to the spill, and began loading the lightering equipment onto that vessel. (Alyeska later told the CFMC that this split the workforce at the terminal and slowed down the response effort.)

-- *AOSC NOTE:* According to the CFMC, the USCG claims that placing the lightering gear on a tug was a suggestion, not an order, and that Alyeska did not inform them that this would delay the response of the contingency barge by several hours.

*According to the ADN, Alyeska officials insist that the USCG told it to move lightering gear from the contingency barge to the tug to get it to the scene more quickly. The USCG states that Alyeska misinterpreted a simple suggestion. CDR McCall said he never dreamed the barge was unloaded to begin with or that Alyeska would think he was more interested in lightering the ship than getting containment booms out to the spill. According to CDR McCall, no one at Alyeska ever told him putting the lightering equipment on a tug would set back the response by several hours.*

*Even Alyeska's own chronology at 0458, input below, suggests that the decision to remove lightering equipment from the contingency barge and place it on a tug for faster transfer to the spill site was a decision made at the AMT terminal.*

0416 *ALYESKA:* McKay was notified by Barnum that he was to supervise loading of lightering equipment on the Sea Flyer and that this should take priority over loading the contingency barge.

0420 *ALYESKA:* An Exxon representative contacted Henman at the AAEC. Alyeska notified the National Response Center of the spill.

0420 *EXXON:* Roger Gale of BP Americas called Borgen about availability for lightering of the OVERSEAS WASHINGTON (90 kDWT) and ADMIRALTY BAY (80 kDWT). They also discussed Sampson ocean fenders for lightering.

0425 *ALYESKA:* The AVEC was informed that the USCG was concerned about the stability of the EXXON VALDEZ.

0425 *EXXON:* Rassinier contacted Gordon P. Lindblom, a dispersant consultant, for dispersant application logistics.

0426 *ALYESKA:* Exxon President Iarossi contacted Alyeska President Nelson.

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0427 **ALYESKA:** Henman informed Shier that Exxon would be arranging for equipment and that Alyeska should assemble a list of contacts for Exxon.

0430 **ALYESKA:** Shier requested a helicopter spray rig from CIRO.  
Upon learning that the USCG did not have an adequate communications system, Alyeska's data acquisition manager in Anchorage, Theron Jenne, called ALASCOM to determine if a mobile satellite station would be available. Alascom was told cost was not a consideration.

0430 **EXXON:** Borgen called CDR McCall, inquiring about approval for dispersants. Borgen understood McCall to state that Exxon Shipping Company had his approval to use dispersants on the spill. They discussed volume of spill, CIRO, and use of the EXXON BATON ROUGE to lighter.  
Thirty-five foot water at low tide. Present weather: 15 knot wind, 20-30 degrees F., rain/slush, wet and damp.

0430 **STATE/ADEC:** ADEC's LeBeau and McKean departed Wasilla by car for Valdez.  
*[AOSC NOTE: According to Jim Sey at Alaska Division of Emergency Services in the Department of Military and Veterans Affairs, which also sent staff from Wasilla to Anchorage, although this journey over two mountain ranges can be quite treacherous in winter, there was little snow at this time and the roads were in excellent condition.]*

0430 **ADN:** The USCG called State ADFG Trooper Fox for a second time. The CG indicated it had information that the captain of the EXXON VALDEZ possibly had been drinking and Fox's assistance in investigating was requested.

XXXX **HW PRETRIAL-FOX:** The USCG called Fox back and said that the captain had been drinking, that Tom (LCDR Falkenstein) said the captain had been drinking, and that Fox's assistance was requested. Fox assumed that the Tom referred to was ADEC's Tom McCarty and that he was being called to help with a drunken sailor.  
Fox telephoned Gene Cyrus, his superior, for directions. Fox knew that it was a big drunken driving case.

0435 **EXXON:** Exxon Shipping Company Houston Command Center activated a response telephone number. Iarossi reviewed initial mobilization: Exxon Shipping West Coast Response Team, Exxon Inter-functional Oil Spill Response Team, spray aircraft C-130, Oil Spill Response Ltd. (OSR) stockpile in United Kingdom, Clean Bay stockpile, and two other 707 aircraft contacted for dispersant shipment.

0436 **ALYESKA:** Shier directed that an Alyeska representative be sent to interface with the USCG and ADEC.

0440 **EXXON:** Rassinier telephoned ConAir in Abbotsford, British Columbia, for a DC-6 spray plane. Answering service indicated office was not open. He left a message that Exxon needed a plane.

0445 **T/V EXXON VALDEZ DECK LOG:** Watch relieved. Maintained bridge watch.

0445-0750 **T/V EXXON VALDEZ DECK LOG:** ABs Jones and Peacock had replaced Kagan and Jones and 2ndM LeCain was on duty as watch officer.

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0445 *ALYESKA*: CDR McCall called the AVEC with an update: Lightering is the priority; 400,000 barrels are to be pumped off within 36 hours using two six-inch hoses.

-- *NTSB INTERVIEW-SHIER*: CDR McCall asked that Alyeska send lightering equipment to the scene.

0448 *T/V EXXON VALDEZ BRIDGE ROUGH LOG*: Started lowering starboard anchor two shots.

0448 *EXXON*: Borgen called Rassinier: relayed dispersant information from CDR McCall, discussed C-130 Hercules dispersant plane, ConAir DC-6, Clean Bay's 4,000 feet of boom and skimmer, and OSR Ltd., Southampton, England.  
The EXXON VALDEZ put out two shots (180 feet) of starboard anchor.

0450 *ALYESKA*: The International Bird Rescue Center (IBRC) in California was called and told to assemble a bird cleaning crew.

0452 *CFMC*: The Coast Guard called two nearby tankers, the CHEVRON CALIFORNIA and the ARCO ALASKA about lightering hoses available from those ships. The CALIFORNIA reported having two 25-foot six-inch hoses and two 25-foot four-inch hoses on board. The ALASKA reported two 25-foot six-inch hoses. The ALASKA also reported having a 16-inch to six-inch reducer on board.

0457 *ALYESKA*: The AVEC requested that the trans-Alaska pipeline be slowed down.

0458 *ALYESKA*: The AVEC issued orders to expedite all lightering gear and strip any available lightering hose from ships at the AMT berths. O'Donnell, Shier, and Runnels decided that the contingency barge should be loaded with containment equipment and that lightering equipment should be moved separately to the spill site in a tug. Shier placed Phillip Koszarek, an Alyeska "B" Shift marine technician, in charge of collecting and loading lightering equipment on the tug.  
Shier updated O'Donnell at the AVEC: The EXXON BATON ROUGE was due on the scene at 1000. The USCG remained concerned about the stability of the EXXON VALDEZ, that it would shift on the rocks and suffer further damage. The USCG Strike Force was now activated.

0500 *ALYESKA*: Lightering fenders were being prepared for transport from the AMT with additional six-inch cargo transfer hoses.  
Jernigan, at the AAEC, alerted Barry Eldridge of CIRO and Mark Johnson of Alaska Clean Seas of the spill and asked that they report inventory and stand by their offices at 0700.

0500 *EXXON*: Borgen spoke to Iarossi and confirmed that Borgen, William J. Deppe, an Exxon Shipping Company shipping group coordinator, and Myers were departing for Valdez; also that CDR McCall said that Exxon Shipping Company had his approval to use dispersants on the spill.

0500 *NRT/USCG*: USCG small boat was dispatched to survey the area.

0506 *ALYESKA*: Shier called Alyeska's Nelson to relay CDR McCall's order that lightering and stabilizing the EXXON VALDEZ were to have first priority. Cleanup and boom equipment would be sent later. The tug would not go to the spill site until all available hose had been located and loaded on board. Shier informed the AAEC

that Alyeska personnel were collecting all available lightering hoses from tankers at the AMT.

- 0507 *ALYESKA*: AVEC ordered Howard McElrath, Alyeska warehouse supervisor, Valdez, to order two additional trucks of sorbent.
- 0510 *EXXON*: Rassinier called ESSO Petroleum Co., Ltd., United Kingdom, to alert OSR.
- 0511 *ALYESKA*: AVEC ordered Alyeska personnel to check with all tankers at berth for any available six-inch lightering hose. Shier informed the AAEC that the EXXON VALDEZ could be refloated once 400,000 barrels of oil were lightered from it.
- 0515 *ALYESKA*: Robinson reported that a helicopter would arrive at first light, with backup to be arranged if needed.
- 0515 *EXXON*: Gillette contacted Michael P. Companion, Exxon Chemical Americas, regarding dispersant inventories.
- 0518 *EXXON*: Rassinier contacted oil-spill consultant O'Brien enroute to Jacksonville to divert him to Valdez.
- 0519 *ALYESKA*: AVEC began to lease smaller boats for assistance with the response. CDR McCall approved sending James Bogart of the AVEC to USCG headquarters to act as liaison.
- 0522 *ALYESKA*: Shier advised Hutton of the lightering priority. The tugboat Sea Flyer would be taking the lightering equipment to the spill site.
- 0523 *ALYESKA*: AVEC sent Bogart to the USCG MSO to act as a liaison.
- 0525 *EXXON*: Rassinier confirmed weather in Valdez: 20-30 degrees F, rain/slush, winds variable 15 knots, little wave action.
- 0526 *ALYESKA*: In response to the AVEC's earlier inquiry, Alyeska personnel reported that they had located two 50-foot X eight-inch hoses aboard the tanker ASPEN and one three-foot three-inch X eight-inch hose aboard the tanker ARCO INDEPENDENCE, but had not located any six-inch hose.
- 0528 *ALYESKA*: Shier provided ADEC's Lawn with an update.
- 0530 *STATE/ADEC*: From the EXXON VALDEZ, ADEC's Lawn spoke with Shier. Shier informed Lawn the pollution equipment and barge were being readied and would be on their way soon; he did not inform Lawn that the barge would be delayed because it was unloaded. Shier and Lawn also discussed the need for Alyeska to call up its contract equipment for applying dispersants. Shier informed Lawn that this had been done. Lawn advised Shier that he would call him again at first light to let Shier know the location of the oil.
- *HW PRETRIAL-LAWN*: Lawn called Alyeska to discuss the oil leak, how much it was and why it was. He directed Shier to get dispersants which were in Arizona and suggested that Shier get a twin-engine helicopter to help (spread the dispersants).

-- *CFMC:* Lawn, ADEC's representative aboard the EXXON VALDEZ, called Alyeska's Shier to ask about the arrival of the cleanup equipment at the scene. Lawn was told that it was on its way. Lawn suggested to Shier that he contact the Alyeska dispersant contractor (Biegert Aviation, in Chandler, Ariz.), that the oil spill cooperatives had mutual assistance agreements with Alyeska. Lawn was told that the contractor's aircraft would be delayed because it was not in Arizona at the time.

XXXX *HW PRETRIAL-LAWN:* At some time between 0530 and 0700, Lawn passed Hazelwood in a stairwell. He detected the smell of "near beer." That was the first time that Lawn became aware that alcohol might be an issue. Lawn was occupied with the vessel; he did not interview or make reports about any one on the ship.

0530 *ALYESKA:* Members of the Alyeska Marine Operations Department "B" Shift arrived on duty at their normal time with the exception of Day, who had reported at 0200, and John Baldridge, the AMT's "B" Shift supervisor, who had reported at 0415.  
At about this time, Kiml started fielding calls from local boat owners offering boats for hire. He continued to field these calls and prepared a list which was passed on to others in the AVEC.

0530 *EXXON:* Borgen spoke on the telephone with Rassinier. Borgen had ordered one to two helicopters in Valdez plus plane.

0530 *HORTON:* The IBRC telephoned Jessica Porter, operator of a wildlife rehabilitation center in the San Juan Islands, Wash., and requested that she go to Valdez to work for that organization. Porter rushed to the airport for an early morning flight.

0530 *ALYESKA/NTSB:* By 0530, the EXXON VALDEZ had lost 242,000 barrels (10.1 million gallons) of oil into Prince William Sound. Between 0323 and 0530, the discharge amounted to 104,000 barrels (4,368,000 gallons).  
The amount and instantaneous nature of the discharge easily made the EXXON VALDEZ oil spill the largest in U.S. history.

0539 *ALYESKA:* O'Donnell arranged with ERA Aviation to obtain six-passenger helicopters.

0540 *ALYESKA:* AVEC was informed that the USCG estimated the spill to be 210,000 barrels (8,820,000 gallons).  
To expedite deployment of lightering gear, AVEC directed that fenders be partially inflated en route and then inflated completely on site.

0540 *EXXON:* Esso Petroleum confirmed to Rassinier that OSR was on standby. OSR would contact Rassinier directly.

0545 *ALYESKA:* Exxon Shipping Company President Iarossi informed the AAEC that Exxon was mobilizing a spill team to depart from Houston at 1400.  
Polasek informed Iarossi that Alyeska had contacted Alaska Clean Seas, CIRO, state and federal agencies, and the bird rescue experts.

0548 *EXXON:* Rassinier and Companion discussed dispersant volume available in Houston inventory and in Clean Bay, Clean Seas, and Clean Gulf stockpiles.

0549 **EXXON:** Rassinier notified OSR that need was for skimmers, sorbent, and portable tankage. OSR was to load out Vikoma Sea Skimmer 50s and one heavy-oil skimmer, fast tanks, manager, and four operators on first available flight.

XXXX **USEPA:** In the early morning hours of March 24, Carl Lautenberger of the U.S. Environmental Protection Agency (USEPA) Alaska Operations Office, Anchorage, was the first USEPA staff person to be notified. Lautenberger was in Skagway when he received a telephone call from the USCG. The CG got Lautenberger on a shuttle flight to Juneau.

0550 **USEPA:** Carl Kitz of USEPA Region 10 Office in Seattle received a telephone call from Alyeska's Brian Johnson (controller of the AVOCC). At that time it was estimated that 138,000 barrels of oil had been spilled.

0551 **USAF:** Start of civil twilight.

0600 **ALYESKA:** Along with the regular Alyeska work shifts, 20 additional Alyeska personnel responded to the initial call-out and had arrived at the AMT. A total of 120 Alyeska personnel were already working on various aspects of the spill response in Valdez and Anchorage.

Jernigan advised local sorbent companies, Unitec and Crowley, to be available.

Bruce Parker of Biegert Aviation returned an earlier AAEC telephone call regarding ADDSPAC availability and was directed to Exxon personnel.

ALASCOM informed Jenne that a company satellite station was available and Jenne directed the station be moved to Valdez. Jenne was still not sure it would be needed, but he wanted to be prepared.

0600 **CFMC:** About 50 extra people had arrived at the AMT and were set to work preparing for the oil spill response. The Alyeska night crew was sent home for a rest at this time.

-- **ADN:** About 50 extra people had arrived at the AMT to help in the oil spill response. The night crew was sent home and told to return at 1800 prepared to spend 18 hours on the water at the spill scene.

0600 **CFMC:** Alyeska's O'Donnell flew over the EXXON VALDEZ in a helicopter to examine the extent of the spill. This was consistent with the contingency plan which called for aerial reconnaissance as soon as possible after a spill is discovered. From the helicopter, O'Donnell radioed the EXXON VALDEZ and asked if they wanted the ship to be surrounded. Someone unidentified from Exxon told him not to boom the ship.

-- **ADN:** O'Donnell flew over the tanker. From the aircraft O'Donnell asked those on the tanker if they wanted it boomed. The contingency plans called for using booms to contain oil from leaking tankers so it was to O'Donnell's surprise that an Exxon official on the ship said no, they were concerned with vapors. O'Donnell recalled specifically that it was an Exxon official, although he did not know who, who kept the boom away from the ship.

[AOSC NOTE: According to the ADN, at some point during the first few days of the spill, a story began circulating that booming the ship would have trapped volatile fumes close to the vessel and that fumes could have been set off and the ship and its occupants blown to bits. That reason for

not booming the ship came as a surprise to ADEC officials who said no one had ever raised that concern in years of devising and refining contingency plans. They pointed out that Alyeska routinely boomed all tankers once they tied up at the berths.

Beverly Michaels, an Alyeska spokeswoman who tried to find out more information on the issue, said that she was told the booms would be opened and the oil allowed to escape if there were ever a huge spill at a berth. Some suspect, the newspaper said, that the "gasification" issue was just an excuse for the slow response.

Exxon Shipping Company President Iarossi, testifying at a Congressional hearing in May of 1989, said that he was surprised that vapors were being given as the reason for not booming the ship.]

0600 **EXXON:** The following individuals from Exxon Shipping Company started arriving at Exxon's Houston Command Center: Miller; Patrick L. Hughes, administrative analyst; Richard F. Siloway, business analyst; and Connie I. Walding, financial analysis coordinator. This time was also the start of contact with and booking flights for: Charles J. Glock, senior transportation allocator; Gary S. Gorski, tanker section supervisor; Ray J. Botto, personnel administrator; and Hughes, all of Exxon Shipping Company; and Arnie J. Sowden, accountant, and Donald R. Derryberry, information and communication systems, both of Exxon Company, U.S.A..

Duncan ordered a SAT C-130 to carry ADDSPAC from Phoenix to Anchorage; departure 2155 March 24, arrival 0612 March 25.

OSR contacted an airplane broker to order an SAT 707 to carry four skimmers from Southampton, England, to Bangor, Maine, to Anchorage, Alaska; departure 1316 March 25, arrival Anchorage 0518 March 26.

0600 **ADN:** Lawn called Lamoreaux and updated him. This included information that the contingency barge had not yet arrived.

0600 **STATE/ADEC:** ADEC's Lamoreaux contacted Bob Flint, ADEC/Anchorage, and asked Flint to contact Law and McCarty at their hotel in Anchorage and instruct them to return to Valdez.

06XX **EXXON:** Jack Mortenson, manager of Clean Bay, Inc., indicated to Rassinier that Clean Bay had Walosep W-4 and GT-185 skimmers, boom, and operators available. Rassinier was lining up a DC-8 to transport them to Anchorage.

[AOSC NOTE: According to the NRT Report, the GT-185 is a weir skimmer utilizing gravity as a means of collecting oil. The GT-185's pumping system can deliver up to 440 gallons per minute. The Walosep is also a weir skimmer and has an oil recovery rate of up to 264 gallons per minute.]

0606 **ALYESKA:** AVEC informed the AAEC that Alyeska was establishing a remote control center for Exxon at the Westmark Hotel in Valdez.

Shier recommended that the AAEC acquire all available containment boom, skimming devices and suckers from Alaska Clean Seas and CIRO.

0615 **ALYESKA:** Alyeska personnel were loading hoses, Yokohama fenders, and a compressor aboard the Sea Flyer.

0615 **USDOJ-OEPR, USDOJ-NPS:** USDOJ's Gates received a second notice of the grounding of the EXXON VALDEZ, this time in a phone call from a USCG

representative. Gates then telephoned his aide, regional environmental assistant Pam Bergmann. Bergmann had just returned from serving as USDOT's on-scene representative at an oil spill in Dutch Harbor, Alaska.

- 0620 CDFU: In Cordova, Michelle Hahn O'Leary and her husband were awakened by a telephone call from a fellow fisherman in Seattle telling them of the oil spill. They immediately called state troopers and Jack Lamb, acting president of the Cordova District Fishermen United (CDFU), suggesting that CDFU coordinate in any way possible assistance of the fishermen of PWS.
- 0621 *ALYESKA*: Alyeska's Nelson reported that CDR McCall indicated that dispersants could be used. Nelson expressed his hope that the USCG would stand by this decision. Nelson indicated to George N. Nelson, president of BP (British Petroleum) Exploration, Alaska, that oil from the EXXON VALDEZ was starting to flow to the southwest, would flow across shipping lanes, and would probably hit the shore on Naked Island. The oil should not impact Cordova, he indicated.
- 0623 *ALYESKA*: Exxon issued a press release: "Exxon Shipping Company officials are en route to the scene. Immediate response to the spill is being handled by crews from the pipeline terminal, with management of the operation being transferred to Exxon officials as they arrive. Alyeska crews will support Exxon personnel."
- 0630 *ALYESKA-POLASEK, ALYESKA*: The USCG concluded that Alyeska should initiate the formal approval process for dispersant use. CDR McCall ordered Alyeska to "FAX" him a formal request for dispersant use.
- *EXXON*: CDR McCall requested that Alyeska submit in writing the request to use dispersants and "FAX" the request forms to him.
- *CFMC*: The FOSC again contacted Alyeska regarding dispersant use and suggested that Alyeska formally start the process to request use of dispersants on the spill.
- *ALYESKA/NTSB*: The USCG, having determined earlier that a significant volume of oil had already been released into PWS, concluded that Alyeska should initiate the approval process for dispersant use. Employees at the AVEC immediately began preparing all necessary approval forms, which required information such as the size of the spill, depth of the water, chemical properties of the oil spilled, and weather conditions in the area.
- 0630 *CFMC*: CDFU began to mobilize its membership and other fishermen. The fishermen had boats, equipment, and local knowledge they felt would be of help in responding to the spill, such as in helping to boom off the tanker. They advised Alyeska and the USCG that 20 boats were immediately available to help deploy booms. The offer was not accepted by either the CG or Alyeska.
- 0630 *USEPA*: Greg Kellogg, director of USEPA's Alaska Operations Office, learned of the EXXON VALDEZ incident listening to a radio news broadcast. That was also how Doug Johnson of the same office heard the news.
- 0633 *USCG POLREP ONE*: The USCG MSO, Valdez, began its nationwide reporting of the EXXON VALDEZ oil spill when it transmitted "*POLREP One*, (Pollution Report One), crude oil (spill), approximately 150,000 bbls, major, T/V Exxon Valdez."

- 0634 *USAF: Valdez sunrise.*
- 0645 *ALYESKA: Exxon's Cornett was at the AAEC where he learned that center tanks One-Five (1C-5C) and starboard tanks One, Three, and Five (1S, 3S, 5S) on the EXXON VALDEZ were punctured.*
- 0645 *ALYESKA: Alyeska arranged for delivery of the following equipment: 7,500-8,500 feet of boom from Prudhoe Bay, 7,300 feet of boom from CIRO, 8,000 gallons of dispersants from Anchorage, and additional dispersants from Kenai.*
- 0645 *HW PRETRIAL-FOX: When ADFG State Trooper Fox got to the EXXON VALDEZ, oil was coming out so fast it was pressing out of the water, like a hose under water. The USCG boat on which he had been brought to the vessel had trouble getting close enough to the ship for him to disembark. The CG boat had to go around to the other side of the vessel.*  
*Two crewmen from the EXXON VALDEZ in overalls and hard hats escorted Fox to the wheel house on the bridge. The atmosphere was quiet and dark, a sad kind of atmosphere. The captain was not on the bridge.*  
*LCDR Falkenstein requested that Fox take Captain Hazelwood off the ship. Hazelwood, Falkenstein said, was sleeping downstairs. Fox said that he could not, that he didn't want to start a search (of the captain's quarters) without probable cause. The CG then wanted Fox to take blood samples. Fox said that he could not take blood.*  
*CWO3 Delozier told Fox that he was going to start interviewing people and asked if Fox would go with him. Fox said he would but needed to make a phone call first. After Fox returned from his phone call of about five minutes, he found Delozier had already begun an interview.*
- 0645 *CFMC: ADEC's Lawn again called Shier about the need for containment and cleanup equipment at the scene. Lawn was told the equipment was on its way and he was read a list of the booms and skimmers that were coming out on the barge. Lawn was told to expect 8,000 feet of boom, three Vikoma booms, and three large skimmers.*
- 0650 *STATE/ADEC: Lawn again telephoned Shier. Shier indicated that a helicopter with dispersant bucket was en route to Valdez from Anchorage. Shier also indicated that Biegert Aviation had a C-130 spray plane in California. Also that Al Allen, a private consultant, was en route with fire boom. Shier indicated that the barge would be arriving soon with 8,000 feet of boom, three Sea Packs (each with 1,500 feet of boom) and three large skimmers.*  
*[AOSC NOTE: According to Horton's sources, with two C-130 spray planes, if each had been able to spray full loads of dispersants twice a day, they would have needed nearly half a month to treat half the spill -- if things worked perfectly.]*
- *ADN: Lawn again called Shier. He told him more oil had leaked and that he needed to get the equipment to Bligh Reef buoy. The oil, Lawn said, was stretching away from the ship and needed immediate attention. Lawn was again assured that the equipment was on the way.*  
*According to Lawn's field notes, Shier listed the equipment that was en route: 8,000 feet of boom, three deep-water Sea Packs including containment boom, all the skimmers -- large and small. Shier said that CIRO had been notified, cleanup expert Allen was enroute to Valdez with fire-resistant boom, and a helicopter with buckets to carry dispersant had been lined up.*



Shier said that a helicopter would be there soon to look at the situation and a helicopter did fly over the tanker a short time later. Lawn said.

0651 *ALYESKA*: Ronald Wilkinson, Alyeska's manager of oil movement, directed a reduction in the rates of oil flow through the pipeline from his Anchorage office.

0657 *ALYESKA*: Shier reported to Polasek that the USCG concurred that no exclusion booming was to be done. Instead, boom should be used to divert the oil to open water where skimmers would operate at the leading edge of the slick.

Shier informed the AAEC that CDR McCall had asked Alyeska to start the application process for dispersants. The EXXON VALDEZ was in Zone Two and McCall had talked with Cordova fishery biologists.

Shier also stated that ADEC's Lawn reported that the EXXON VALDEZ had lost oil from tanks Nos. 1, 2, 3, 4, and 5 center (1C, 2C, 3C, 4C, 5C); 1, 3, and 5 starboard (1S, 3S, 5S); and starboard slop tank. The slick was now 1,000 feet wide and 1.5 miles long.

0700 *ALYESKA*: Meidinger moved the 45-ton crane to the Emergency Response Building at the AMT to load the Yokohama fenders onto flatbed trucks to transport them to Crowley Dock. The AVEC was advised that the contract boat Vince Peede was loaded with food and other supplies and ready to depart. Alyeska contacted CIRO and ordered additional dispersants.

0700 *ADN*: ADFG State Trooper Fox arrived at the EXXON VALDEZ to assist the Coast Guard investigation. He saw nothing in the captain's mannerisms to arrest him for drunk operating of a vessel.

0700 *AOSC/CDFU*: Lamb, vice president of CDFU and a member of the Cordova Oil Spill Disaster Response Committee, telephoned Marilyn Leond, CDFU's executive director, after just being informed of the tanker grounding on Bligh Reef. Lamb indicated he was on his way to Riki Ott's cabin to check on her.

0700 *HW PRETRIAL-STATE*: Dave Lindenow, a resident of the community of Ellamar, which overlooks Bligh Reef, saw the EXXON VALDEZ on the reef and oil leaking from the vessel. He went out in his own boat to investigate. His boat slowed when he hit the oil, it was so thick.

0703 *CFMC*: The USCG called the EXXON VALDEZ on behalf of the ship's agent and asked if the ship carried any eight-inch to six-inch reducers. The EXXON VALDEZ replied that there was one such reducer on board plus a number of 16-inch to six-inch reducers. This was followed by a discussion of the number of lines that would be run from the stricken tanker to the lightering vessel. The VALDEZ reported that it had two six-inch hoses aboard and would need two reducers from eight inches to six inches for each six-inch hose sent.

This was followed with the ship's reporting that it would need two eight-inch to six-inch reducers and one 12-inch to six-inch reducer; the four-inch hose would not be needed. More discussion on reducers followed.

The CG called another tanker, the ADMIRALTY BAY, for reducers, and the CHEVRON CALIFORNIA volunteered its reducers if they were needed.

0706 *ALYESKA*: A USCG representative arrived at the AMT.



0708 *CFMC*: The USCG made what appears to be its first contact with the EXXON BATON ROUGE.

0710 *AOSC/CDFU*: Marilyn Leond opened the CDFU' office. She got no answer dialing the emergency phone number she had for Alyeska. She was, however, able to reach the USCG MSO, Valdez, and they confirmed the grounding of the tanker. Knowing this, she called some of the local fishermen to see if their boats were in the water and whether they were available to help.  
Leond called various legislative offices in Juneau, reached some people, left messages for others. Leond continued to call Alyeska about every ten minutes and never got an answer.

0715 *USEPA*: USEPA's Kellogg and Johnson arrived at their Anchorage office. The Anchorage office attempted to patch in telephone lines for an 0900 ARRT meeting.

0716 *ALYESKA*: Polasek informed OSR, Ltd., that Alyeska was trying to get as much skimming equipment as possible. Polasek was advised that equipment from England would arrive the next day.

0716 *CFMC*: The vessel Helenka B, which had volunteered for the task after dropping off a load of logs, reported that it was leaving Two Moon Bay for Knowles Head, where the other (incoming) tankers were anchored, to pick up the hoses and reducers.

0718 *EXXON*: The EXXON BATON ROUGE arrived at Cape Hinchinbrook (the entrance to Prince William Sound).

0XXX *EXXON*: The EXXON SAN FRANCISCO was notified, told to anchor and wait to lighter the EXXON VALDEZ after the EXXON BATON ROUGE.

0720 *ALYESKA*: Alyeska's logistical support in Anchorage coordinated the procurement of an additional skimmer from Esso.

0723 *CFMC*: The USCG requested that the EXXON BATON ROUGE proceed to Naked Island, where FOSC CDR McCall would provide orders to the grounding site.

0724 *ALYESKA*: Alyeska's Nelson informed Chuck Webster, head of BP America's Crisis Management Department, that the USCG approved dispersant use, at least around the tanker and "supposedly" in PWS itself.

0725 *STATE/ADEC*: ADEC's Lamoreaux learned that Kegler could be reached in Skagway.

0727 *NRT/USCG*: AMT's security helicopter was aloft for overflight with USCG investigator aboard. Analysis of videotape taken by the investigator showed the slick to be 1,000 feet wide by four miles long. Sheen extended in a southerly direction with minimal contact with shoreline.

-- *NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE*: The oil slick was 1,000 feet wide and four to five miles long.

-- *ALYESKA/NTSB*: The initial daylight aerial reconnaissance of the EXXON VALDEZ revealed an oil slick 1,000 feet wide and four to five miles long.

- 0730 *ALYESKA*: Crews began loading lightering gear at Crowley Dock. The fenders were loaded first, followed by air hose, a compressor, large lightering hose, and miscellaneous small gear (e.g., flanges, gaskets, reducers, stud bolts).
- 0730 *EXXON*: Gillette confirmed a DC-8, previously ordered by Duncan from Three Way Charter Brokers, would carry skimmers and Clean Bay equipment from Oakland, Calif., to Anchorage; departure 1600 March 24, arrival 2100 March 24.
- 0730-0800 *ADES*: Jim Sey, chief of operations of Alaska's Division of Emergency Services (ADES) in the Alaska Department of Military and Veterans Affairs (ADMVA), heard of the EXXON VALDEZ oil spill as he listened to a commercial news broadcast while driving to work from Anchorage to Wasilla. (Statutorily, Sey's agency was the coordinator in the state for declared disaster emergencies with the exception of oil spills. For oil spills, ADEC was to perform the duties of ADES in consultation and coordination with ADES.) According to Sey, who was on duty as the Division's acting director, he grasped the seriousness of the situation and when he arrived at work, without waiting to be called by ADEC, instructed ADES radiological officer, John Hensley, to contact ADEC to see what assistance was required.
- 0745 *USCG VTC VALDEZ LOG*: USCG VTC radio operator Blandford was relieved at the conclusion of his watch.
- 0746 *CFMC*: The USCG and the EXXON VALDEZ conferred again on the need for reducers and determined that one additional 16-inch to six-inch and one 16-inch to eight-inch reducer would be needed.
- 0747 *CFMC*: The EXXON BATON ROUGE reported to the USCG that it was carrying 148,000 barrels of dirty ballast water on board. The CG gave a verbal approval for dumping it.  
(The BATON ROUGE was built with segregated ballast tanks in order to eliminate or at least reduce the need for using dirty cargo tanks for ballast. In this instance, the ship had dirty ballast because of rough weather encountered on the voyage to Prince William Sound from the lower 48. Some of the oil from the dirty ballast apparently later reached Hinchinbrook Island, causing near panic in Cordova where it was thought briefly that oil from the EXXON VALDEZ had reached Hinchinbrook.)
- 0750 *T/V EXXON VALDEZ DECK LOG*: Watch relieved. Bridge watch maintained.
- 0750-1150 *T/V EXXON VALDEZ DECK LOG*: 2ndM Cousins was watch officer and ABs Claar and Radtke were on duty.
- 0755 *STATE/ADEC*: ADEC's Lamoreaux received a further update from Dan Lawn who was still aboard the EXXON VALDEZ.
- 0800 *ALYESKA*: Thus far, 25 private contractors had been called out.  
The USCG's Delozier and ADEC's Lawn, on-board the EXXON VALDEZ, advised Alyeska not to boom the ship until receiving authorization.  
It was decided to place the portable (satellite) communications module on Reef Island.
- 0800 *ALYESKA-POLASEK, ALYESKA/NTSB*: Booming the EXXON VALDEZ was considered inadvisable for these reasons: the vast majority of the spill had

DAY ONE (Friday, March 24)

already occurred; the integrity of any containment around the vessel would be lost upon entry of the lightering ship and tugs into the containment area and from the backwash of those vessels; and booming the ship potentially could have concentrated highly explosive vapors around the vessel while the crew and government official were still on board.

0800 **USCG-ARRT:** The ARRT was activated.

*[AOSC NOTE: The following teletype was transmitted by the USCG 17th District (USCGD17), the CG's state headquarters in Juneau, through the ARRT electronic mail (E-Mail) system at 0951:*

*Effective 0800 this date, the Alaska Regional Response Team, in particular ADEC, USEPA, USDOC (U.S. Department of Commerce), USDOl (U.S. Department of Interior), and USCG, is activated for the major oil spill involving the T/V EXXON VALDEZ in Prince William Sound. A teleconference is planned for 1000. ARRT representatives are requested to be available at that time to discuss the general situation, the resources at risk in the area, and the possible use of dispersants.]*

0800 **EXXON:** Pursuant to CDR McCall's direction, Alyeska "FAXed" to the USCG in Valdez a 10-page emergency handwritten request to use dispersants beginning at 1400 that afternoon, using both fixed-wing and helicopter spray craft.

-- **ALYESKA/NTSB:** The documentation supporting Alyeska's request to use, not just test, 50,000 gallons of dispersants was telecopied to the ARRT.

0800 **EXXON:** Gillette called Art J. Stephens, Exxon Company, International, Transportation, to alert marine group in Exxon Company, International, at Florham Park, N.J.

0800 **ADN:** Due to the closing of Port Valdez to tanker traffic, two tankers were stranded at their berths at the AMT.

0800 **AOSC/CDFU:** Lamb and Ott arrived at the CDFU office and begin calling local fishermen. They received a phone call from a local air charter service saying it was going to Valdez and Ott accepted the offer to go along. By now, news of the grounding was on the radio and fishermen were starting to come into the office.

0800-0830 **GOV'S OFFICE:** At 0800 Alaska Governor Steve Cowper was interviewed at his Fairbanks office by Sam Bishop of the *Fairbanks Daily News-Miner (FDNM)*. Governor Cowper had scheduled this exclusive interview to announce that he would not run again in 1990 for governor or any other political office. Governor Cowper was accompanied by his press secretary, David Ramseur. Apparently, at the conclusion of the interview, Bishop asked the governor for his comments regarding the EXXON VALDEZ oil spill, and this was the first that the governor had heard of the spill.

0800-1100 **STATE/NTSB:** Lamoreaux contacted ADEC personnel around the state to arrange logistical support. Bruce Erickson, ADEC/Anchorage, contacted the Civil Air Patrol (CAP) to arrange additional flights to Valdez because existing scheduled service was sold out. Erickson also contacted Erv Martin at ADES to arrange for logistical support. Subsequently, Lamoreaux was involved in meetings in Anchorage with personnel from the U.S. Department of Interior (USDOl).

*[AOSC NOTE: According to Sey at ADES, Martin, the director, was not in the office that day. It is not clear with whom Lamoreaux talked.]*

- 0805 *ALYESKA*: A MarkAir DC-8, loaded with dispersants, was en route to Valdez, and a C-130 was en route to Phoenix to pick up an ADDSPAC.  
Alyeska's Nelson and Polasek departed the AAEC for a helicopter overflight of the grounding site.
- 0810 *ALYESKA*: Roderick Pugh, Alyeska's manager of power vapor/oil measurement and storage, Valdez, arrived at the AMT and assisted the AVEC by arranging for helicopters. Throughout the remainder of the day, Pugh also arranged to bring in equipment (i.e., hoses, bladders, pumps) from Alyeska pump stations and to have Alyeska personnel and contract laborers called in.
- 0810 *EXXON*: Rassinier called Three-Way re the DC-8 pick-up of Clean Bay equipment in Oakland. Gillette called Tom Crawford, cooperative manager, Clean Caribbean, who had an ADDSPAC owned with Marine Industry Group. Clean Caribbean would not make it available; it must remain in area of interest.
- 0811 *ALYESKA*: Ellis Mercer, Alyeska's manager of contracts and materials, Anchorage, directed Jernigan, the Anchorage purchasing supervisor, to find and secure any available flat deck barges, supply boats, and tank barges in Kenai, Homer, or any other local area. Mercer also directed Jernigan to arrange transfer to Valdez of boom, bladders, and tanks supplied by Alaska Clean Seas.
- 0815 *CFMC*: EXXON BATON ROUGE requested the exact location of the EXXON VALDEZ.
- 0820 *EXXON*: Exxon's Borgen, Deppe, and Myers departed Oakland for Valdez.
- 08XX-09XX *SIMS*: When Rick Steiner, the University of Alaska's marine advisory agent in Cordova, arrived at CDFU, he found Leond, Lamb, Jack Guard, and David Grimes already there. Steiner's information, collected from telephone calls and conversation on the dock, was the same as what Leond had gained through her telephone calls -- nobody was cleaning up the spilled oil. Together, they spent an hour talking about currents, the possible devastation of herring and salmon fisheries, and other possible effects of the spill.
- 0830 *HORTON*: Alyeska Public Affairs Officer Tom Brennan flew over the spill. His first reaction was that he expected to see booms surrounding the ship, and they were not. But he came to realize that that was not what was called for. It was obvious that they weren't going to be able to contain the spill -- they knew that from the first.  
*[AOSC NOTE: As to whether boom could have contained the spill, it is interesting to note what AMT terminal manager Shier said in an interview with an NTSB investigator. According to the write-up of that interview, Shier said that after the spill "we ran a quick calculation and it's just a kind of descriptive thing for ourselves, nothing else. If the ship was boomed, and to contain that oil, you'd need a boom 25-feet high."]*
- 0830 *STATE/NTSB*: ADEC Commissioner Dennis D. Kelso convened a meeting of senior staff, which the governor participated in via telephone. After this meeting, Commissioner Kelso made his way from Juneau to the ship.
- 0830-0900 *STATE/ADEC*: In Juneau, ADEC oil spill personnel including Kyle, Kent, Elsan Kimmerly and Dan Eason convened a meeting to organize response activities and to

inform other Alaska state agencies, including the Governor's Office, Alaska Department of Fish and Game (ADFG), ADES, and Department of Law. Governor Cowper, at his office in Fairbanks, and ADEC Commissioner Kelso, at this time in Anchorage, participated in a teleconference with the Juneau staffers.

0830 *STATE/ADEC:* ADEC's Lockwood, now in Anchorage, together with Sautner and McCarty caught a plane to Valdez.

0830 *CFMC:* Alyeska submitted a formal request to apply 50,000 gallons of dispersants to the slick beginning at 1400 that day. Alyeska had about 4,000 gallons of dispersants at the AMT.

There was no dispersant aircraft in Valdez nor did Alyeska have the equipment needed to apply dispersants. A contractor in Kenai had been contracted for application of the dispersants, and for additional dispersants. The contractor had about 8,000 gallons of dispersants on hand and a helicopter equipped with a dispersant-application bucket. Another 8,000 gallons of dispersants was available in Anchorage.

*[AOSC NOTE: The dispersant at the AMT was in 55-gallon drums. For Alyeska to have 4,000 gallons would mean 73 drums on hand. Yet, according to Alyeska's Barnum at 0105, 50 drums were at the AMT.]*

*Typically dispersant must be applied to a spill in the ratio of about one part dispersant to 20 parts oil. CFMC calculated that, assuming that 20 percent of the spilled oil would evaporate and not require dispersing, and further assuming that 242,000 barrels (about 10.1 million gallons) of oil were spilled, about 404,000 gallons of dispersants would have been needed to disperse the spill. Yet, according to Exxon, as mentioned above, the opening inventory of dispersants in Alaska on March 24 was 365 55-gallon drums or 20,075 gallons.]*

0830 *HW PRETRIAL-FOX:* Aboard the EXXON VALDEZ, Trooper Fox finally met Captain Hazelwood. Fox told the captain he was representing the state. Hazelwood said that the problem was with himself.

Fox knew by the volume of oil coming out of the EXXON VALDEZ, he was involved in something big. Fox called his lieutenant in Palmer, Alaska, to discuss the problem. Fox related to him that his agency would need to have its own conclusions, that a state trooper needed to be sent to investigate.

0836 *EXXON:* Exxon company plane departed Houston, ETA Valdez 1730. Passengers: Iarossi, Duncan, Rassinier, Donald R. Marston (Exxon Risk Management Services Inc.), Robert H. Nicholas (Exxon Shipping Company counsel), and Lindblom, the dispersant consultant. Intermittent contact from the aircraft via air phone with Houston, Valdez, the EXXON VALDEZ, and Florham Park, N.J.

-- *ADN:* Iarossi left Houston by corporate jet for Alaska with the five people he said he wanted to be with him.

0840 *EXXON:* John A. Tompkins, Exxon Shipping Company's fleet services manager, and Hughes arrived at the Houston Command Center. Tompkins contacted Michael A. Stalzer, an Exxon Shipping Company master and EXXON VALDEZ relief captain, and asked him to come in to provide expertise on the vessel.

0842 *ALYESKA, ALYESKA-POLASEK*: A "FAX" was sent to the USCG requesting the use of dispersants. Documentation for Alyeska's use of dispersants requested the use, not just test, of 50,000 gallons of dispersants.

0842 *EXXON*: LCDR Falkenstein authorized discharge of dirty ballast from the EXXON BATON ROUGE.

0859 *ALYESKA*: O'Donnell discussed the spill situation with CDR McCall and updated Baldrige, the director of Alyeska's on-site response, on the size and location of the spill.

0900 *ALYESKA*: Allen and several Alyeska personnel from Anchorage arrived at the AMT, Valdez, on the first flight from Anchorage. En route, they circled the EXXON VALDEZ for 15-20 minutes while Allen took photos. They observed the tugboat Stalwart and a USCG launch present at the grounding site.

0900 *EXXON*: Tom J. Cirigliano, an Exxon Company, U.S.A., public affairs representative, flew from Anchorage to Valdez by helicopter.  
Companion and Gillette [*AOSC NOTE: both apparently in Houston*] discussed dispersant availability. Gillette made arrangements to deliver dispersant drums to Houston airport.

0900 *GOV'S OFFICE, STATE/ADEC, and FDNM*: At some time after his telephone call with the Governor, Commissioner Kelso flew to Valdez. The Governor, meanwhile, arranged for a Department of Public Safety airplane in Anchorage to pick up him and Ramseur in Fairbanks and fly them to Valdez. During the initial period after the grounding, ADEC staff converged on Valdez.

0900 *USDOJ-OEPR*: By this time it was decided that Bergmann would go to Valdez to establish an on-scene USDOJ Operations Center. USDOJ Fish and Wildlife Service (FWS) Response Management Coordinator Everett Robinson-Wilson was requested to accompany Bergmann. They were unable to make commercial plane reservations out of Anchorage as all flights to Valdez were booked.

0900 *STATE/ADEC*: ADFG personnel, including Lance Transky who was called back from annual leave, made arrangements for mobilizing in Valdez, including hotel reservations, car rental, and purchase of additional field equipment. The ADFG librarian assembled available reference material relating to crude oil impact on herring and salmon.

0900 *AOSC/CDFU*: By 0900, Leond at the CDFU office had 30 boats in the water, fueled up and ready to go help. She had not yet, however, been able to reach Alyeska. She called KCHU, the public radio station in Valdez, and obtained a phone number for Alyeska from them. Leond dialed the number and reached an Alyeska switchboard operator. She identified herself, told the operator CDFU had 30 boats ready, and was told someone would call her back. At CDFU, the process of telephoning fishermen and answering the telephone continued all day.

0900 *USEPA*: The USEPA Alaska Operations Office attempted to patch in telephone lines for the ARRT meeting but there were too many lines and the system would not handle them. Consequently, the ARRT teleconference did not take place at this time as scheduled.

0910 *ALYESKA*: Alyeska gave its helicopter to the USCG so that they might proceed to the EXXON VALDEZ in order to conduct blood and urinalysis tests on Captain Hazelwood.

0910 *STATE/ADEC*: ADEC's LeBeau and McKean arrived Valdez. McKean spent the day manning the phones of the Valdez office.

0912 *ALYESKA*: AVEC was informed that AMT personnel needed to load the last Yokohama fender and pick up lightering hose from the ARCO INDEPENDENCE. The estimated departure time of the lightering equipment was 0945.

0919 *CFMC*: The EXXON BATON ROUGE reported it needed two tugs to assist in coming alongside the EXXON VALDEZ.

0930 *CFMC*: The EXXON BATON ROUGE began discussing the depth of the water surrounding the EXXON VALDEZ and the lines and procedures to be used in mooring the two ships to each other.

0930 *ALYESKA*: Film taken at 0930 showed the spill to be two miles wide and three miles long, extending in a south to southwest direct from the reef.

0942 *ALYESKA*: George Dupree, Alyeska's Valdez data acquisitions manager, updated O'Donnell on the AVEC and communications coordination for Exxon at the Westmark Hotel in Valdez.

0950 *ALYESKA*: Loaded with lightering equipment, the Sea Flyer pulled away from Crowley Dock after a USCG waiver of the cold-water survival suit requirement. Nine Alyeska people were on board.

0950 *NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE*: The Alyeska Pipeline Service Company barge with pollution equipment on board left the AMT. It wasn't able to leave earlier because the equipment had to be loaded aboard. ETA on scene was 1300.

0952 *ALYESKA*: AVEC determined personnel requirements for the night crew call-out and arranged for 15 people from Price Construction Company out of the "C" Shift, three mechanics, and one crane operator to assist in cleanup operations. AVEC contacted Walter Sarnacki, Alyeska's "C" Shift marine operations supervisor, Valdez, with orders to mobilize his off-duty crew for emergency call-out.

0954 *ALYESKA*: AVEC was informed that the Valdez animal shelter was set up for bird cleanup.

0959 *ALYESKA*: Arrangements were being made by Ken Durley, Alyeska field environmental specialist, Anchorage, with CIRO to air transport two helicopters, an ADDSPAC, two technicians, fire boom, a helitorch, and dispersants.

1000 *USEPA*: James Everts, chief of the USEPA Regional Superfund Response and Investigations Section, notified Robie G. Russell, USEPA Region 10 administrator, of the spill. Everts also notified several other individuals and called Kellogg at the Anchorage office.

1000 *CFMC*: About this time, Alyeska told the USCG that a full oil spill response team was about to leave Valdez for the tanker, ETA Bligh Reef at 1300.

1000 *ALYESKA*: Robinson received notification from the USCG that their "FAX" machine in Valdez was malfunctioning. The USCG requested that Alyeska "FAX" its dispersant request directly to three other members of the ARRT.

-- *EXXON*: After the Coast Guard told Alyeska that its Valdez facsimile machine was malfunctioning, Alyeska "FAXed" the same written request to the ARRT in Anchorage.

1000 *ALYESKA/NTSB*: Alyeska located two 30,000 barrel barges in Cordova and Homer and contracted for their immediate service in the response effort.

1000 *SIMS*: Steiner and a Cordova pilot overflew the spill site. At the apex of the spill, they witnessed the EXXON VALDEZ listing, a tug beside her, and the tanker EXXON BATON ROUGE a quarter of a mile off, deballasting her holds to make room for cargo from the EXXON VALDEZ. Steiner and the pilot saw no oil-spill containment equipment on scene and, as they searched up through the Narrows toward the Port of Valdez, none on its way.

XXXX *STATE/NTSB*: At some point, upon inquiry, the USCG investigative boarding party was advised of the on-board availability of a "tox kit," thereby enabling CWO3 Delozier to proceed to collect urine samples from the crew on watch at the time of the grounding. Captain Hazelwood declined to provide a urine sample, indicating that he was unable to do so at that time. At some time after these urine samples were taken, a Coast Guard corpsman arrived on board and was instructed by Delozier to proceed to take blood samples, starting with Hazelwood. Asked to give urine and blood samples, Hazelwood gave both.

1000 *NTSB FACTUAL REPORT-TOXICOLOGY*: A urine sample was collected aboard the vessel from EXXON VALDEZ Captain Hazelwood. Later laboratory testing showed the ethanol percentage was .094. Drugs tests were negative. Tests from the same sample at another laboratory showed a .1 percent ethanol content.  
Urine samples were collected at this same time for 3rd Mate Cousins and AB Kagan. Laboratory tests determined no percentage of ethanol or drugs.

1000 or 1030 *HW PRETRIAL-FOX*: Fox was concerned about the blood testing and knew that he had not directed anyone to do the testing. He met up with Delozier and told Delozier that he felt blood samples needed to be taken. Delozier informed Fox that the matter was handled, that Maureen Jones, the ship's medic, was taking blood samples.

XXXX *HW PRETRIAL-FOX*: Fox saw "Mousy," (low-alcoholic beer) in refrigerators in the captain's mess and stateroom. He saw two bottles in the captain's room, a case or two in the officer's mess.  
Fox taped the USCG's interview with Captain Hazelwood. Fox was present during the CG's interviews of AB Kagan and 3rd Mate Cousins.

1010 *ALYESKA*: On its way out, the Sea Flyer stopped at the tanker ARCO INDEPENDENCE's berth to load additional hoses.



- 1012 **NTSB INTERVIEW-SHIER:** After being loaded with about 25 tons of equipment including boom, an oil skimmer, and other equipment, the flat deck barge, BR126-1, left the Alyeska Marine Terminal under tow.  
*[AOSC NOTE: BR126-1 is the number for the barge that Shier identified as the contingency barge. This gives the appearance here that the contingency barge was dispatched at the same time as the tug Sea Flyer, on which Alyeska said it was loading lightering equipment. Shier's interview, however, conflicts with Alyeska's chronology. See below for Alyeska at 1050 and 1137.]*
- 1012 **ALYESKA:** AVEC arranged for Martech to send an 85-foot boat from Seldovia. AVEC was informed that four 6,000 gallon DRA tanks and six 4,000 gallon bladders were enroute to Valdez. In addition, by about this time, approximately 13,000 feet of sea boom was on its way to the AMT from various locations around the state.
- 1029 **CFMC:** The EXXON BATON ROUGE noted the shallow depths at Bligh Reef and remarked that it would like to have more water but it would make do.
- 1030 **ADEC:** ADEC's field officer Lawn was still aboard the EXXON VALDEZ.
- 1035 **ALYESKA, EXXON:** The Pilot boat Chirikof sounded, surveyed the port side, and approached the EXXON VALDEZ for lightering vessel approach.
- 1050 **ALYESKA:** Alyeska's contingency barge was pulled away from Fluor Dock by the two Grayling boats and the Pathfinder, a tugboat on lease to Alyeska by Crowley Maritime Corporation.  
*[AOSC NOTE: As will be seen, leaving Fluor Dock was not the same thing as leaving the AMT. That took three-quarters of an hour more.]*
- 1050 **EXXON:** Exxon's senior transportation allocator, Glock, departed Newark, N.J., ETA Anchorage 2356.
- 1050 **NTSB FACTUAL REPORT-TOXICOLOGY:** A blood sample was taken aboard the vessel from EXXON VALDEZ Captain Hazelwood. Later laboratory testing showed the percentage of ethanol to be .061 but no presence of drugs. Tests at another laboratory showed an ethanol percentage of .06 percent.  
*[AOSC NOTE: The USCG presumes the intoxication of persons operating non-recreational vessels when the blood alcohol sample exceeds .04 percent.]*
- XXXX **ADN:** Fox witnessed the taking of blood samples from Hazelwood, Cousins and Kagan.
- 1100-1200 **ADEC:** Visual observations from aircraft indicated the oil slick from the EXXON VALDEZ extended six miles southwest of Bligh Reef and covered 15.5 square miles of water surface.
- 1100 **NTSB FACTUAL REPORT-TOXICOLOGY:** A blood sample was collected aboard the vessel from EXXON VALDEZ 3rd Mate Cousins. Laboratory testing showed zero presence of ethanol or drugs.

- 1115 *NTSB FACTUAL REPORT-TOXICOLOGY:* A blood sample was taken aboard the vessel from EXXON VALDEZ AB Kagan. Laboratory testing found no ethanol or drugs present.
- 1115 *EXXON:* Hughes and Edward J. McDonald, an Exxon Shipping Company ship group coordinator, departed Houston; ETA Anchorage 2221.
- 1115 *NRT/USCG:* The Federal Aviation Administration (FAA) imposed temporary flight restrictions around the EXXON VALDEZ. Rate of discharge from EXXON VALDEZ was slowing. EXXON BATON ROUGE arrived at location of grounding and began to rig fenders for coming alongside to begin oil transfer operation.
- 1119 *T/V EXXON VALDEZ BRIDGE ROUGH LOG:* Helenka B was approaching.
- 1119 *AOSC NOTE: Dateline Valdez, Alaska, the Associated Press wire carried a 669 word story logged at this time which began, "An oil tanker ran aground today about 25 miles outside this port, spilling an estimated 200,000 barrels of crude oil into Prince William Sound, the Coast Guard said."*  
*It is apparent that the news story was on radio and television before this, but which news media and agency broke the story and at what time could not be determined.*
- 1121 *T/V EXXON VALDEZ BRIDGE ROUGH LOG:* Helenka B alongside to transfer hoses.
- *EXXON:* The vessel Helenka B was alongside the EXXON VALDEZ to transfer cargo hoses.
- 1127 *ALYESKA:* Alyeska's Nelson and Polasek arrived from Anchorage at the Alyeska Valdez Emergency Center.
- 1128 *ALYESKA:* Alyeska was informed that dispersants and burn equipment were to be shipped by CIRO on Northern Air Cargo, leaving at 1400.
- 1130 *ALYESKA:* A computer analysis of the EXXON VALDEZ's stability indicated that if the ship came off the reef, it might roll over within 30 to 90 seconds.
- 1130 *ADN:* Arriving at the EXXON VALDEZ, ADEC's LeBeau was handed a survival suit by the crew. The source of their fear was a computer analysis of the ship's stability.
- 1130 *STATE/ADEC:* ADEC's Lamoreaux participated in a conference call with ADEC personnel in Juneau.  
 ADFG personnel had a separate teleconference which included Commissioner Doug Collingsworth and several staffers in Juneau and Anchorage.
- 1137 *ALYESKA:* The tugboat Pathfinder, with the Alyeska contingency barge and a MARCO Class V and a MARCO Class VII skimmer in tow, departed the AMT en route to the spill site under Baldridge's command. Equipment with the barge included three Vikoma Sea Packs (4,800 feet of sea boom), approximately 3,000 feet of sorbent boom, 7,000 feet of sea curtain containment boom, two 1,000 gallon bladders, a light plant, air compressor, life raft and at least 20 bales of sorbent pads. In addition to the bladders, the tug had a 2,500 gallon slop tank, and the two skimmers had a combined

capacity of 120 barrels. Two 26-foot Grayling workboats and two 26-foot Monark workboats also departed the terminal under their own power.

XXXX

*ALYESKA/NTSB:* Approximately 50,000 pounds of equipment was loaded on the contingency barge during the morning, including six connexes containing over 10,000 feet of boom, the Vikoma Sea Skimmer, a transfer pump and hose for lightering operations, air compressors, a light plant, a generator, additional fuel drums and fuel cans with equipment, machinery spare parts, communications equipment, anchors, chains, buoys, rope, miscellaneous spare parts, repeaters, personnel safety gear, float suits, respirators, and gas detectors. Additionally, 19 Alyeska personnel were on board the barge.

Transportation of the barge to the spill site was complicated by the large number of icebergs along the sea route to the EXXON VALDEZ and the distance to the scene.

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*ADN:* The contingency barge left the terminal with 50,000 pounds of equipment on board. Tugs carried another 22,000 pounds.

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*AOSC NOTE:* The barge, one MARCO Class V and one MARCO Class VII skimmers, and the four workboats, were the only response vessels identified as belonging to Alyeska at the time of the spill. According to the NRT Report, the MARCO Skimmers are sorbent lifting-belt skimmers that work on a conveyor belt-type system. The recovery rate is between 42 and 66 gallons per minute, depending on whether a Class V or Class VII skimmer is used.

The NRT Report, attributing its information to the USCG, identified Alyeska equipment additionally including a sea skimmer, apparently the Vikoma Sea Skimmer, a helicopter, three Sea Packs, 15,200 feet of boom, and 28 personnel. A Sea Pack, according to Alyeska, is an aluminum hulled vessel that contains 1,600 feet of containment boom.

The NRT Report identified other vessels and equipment, including vessels earlier described by Alyeska as contracted to Alyeska, as Exxon's. On the first day these were 10 mechanized landing craft, 15 other vessels, 12,500 feet of boom, three skimmers, and 164 personnel.

1140

*NRT/USCG, ALYESKA:* H-3 helicopter overflight observed extremely heavy oil 20-30 feet from the side of the EXXON VALDEZ. Calm sea was slowing the movement of oil.

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*ALYESKA:* The slick from the EXXON VALDEZ extended in an east-west direction approximately one-half to one nautical miles, and in a north-south direction approximately four-five nautical miles.

1140

*NTSB FACTUAL REPORT-TOXICOLOGY:* A blood sample was collected aboard the EXXON VALDEZ from AB M. Jones. Later laboratory testing showed no presence of ethanol but a presence 207 ng/ml pseudoephedrine and a greater than 10 ng/ml presence of phenylpropanolamine.

1141

*T/V EXXON VALDEZ BRIDGE ROUGH LOG:* Helenka B away.

1145

*CFMC:* The Helenka B informed the Coast Guard that the hoses and reducers had been delivered to the EXXON VALDEZ and that it was returning to Two Moon Bay.

1145 *ALYESKA*: The AAEC located 2,600 feet of boom belonging to Shell Operations in Anchorage, which could be flown to Valdez.

1145 *NRT/USCG*: COTP, CDR McCall, imposed a 500-yard safety zone around the grounded vessel. Notice to Mariners broadcast was begun.

1145 *NTSB FACTUAL REPORT-TOXICOLOGY*: A urine sample was collected aboard the vessel from EXXON VALDEZ Lookout M Jones. Later laboratory testing showed no presence of ethanol. A presence of 9,509 ng/ml of pseudoephedrine and 396 ng/ml phenylpropanolamine was shown.

1150 *T/V EXXON VALDEZ DECK LOG*: Watch relieved.

1150-1700 *T/V EXXON VALDEZ DECK LOG*: 2ndM LeCain was the watch officer and ABs M. Jones and Kagan were on duty.

1151 *EXXON*: The tugboat Sea Flyer was alongside the EXXON BATON ROUGE.

1200 *ALYESKA, EXXON*: Alyeska submitted handwritten request forms to the USCG for permission to conduct *in-situ* burning.

1200 *NRT/USCG; ALYESKA; NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE*: COTP CDR McCall commenced an ARRT teleconference. Discussion included use of dispersants and in-situ burning.

-- *USCG-ARRT*: The following agencies and agency representatives participated in the ARRT teleconference: USEPA - Carl Lautenberger and Jim Kellogg; U.S. Department of Interior (USDOI) - Paul Gates, Pam Bergmann, and Ken Hunt; U.S. Department of Commerce (USDOC) - Paul Becker, Jim Brooks (from DOC's National Marine Fisheries Service/NMFS), and John Whitney (from DOC's National Oceanic and Atmospheric Administration/NOAA); Alaska Department of Environmental Conservation (ADEC) - Lynn Kent, Linda VanHouten, and Bill Lamoreaux; Alaska Department of Fish and Game (ADFG) - Claudia Slater and Sam Shar; and the USCG MSO, Valdez - CDR McCall.

-- *STATE/ADEC*: The RRT meeting included ADEC's Lamoreaux, Slater of ADFG in Anchorage, and ADEC's Kent in Juneau.

-- *USEPA*: The ARRT teleconference took place at 1130. USEPA's Lautenberger participated from the USCGD17 office in Juneau. Greg Kellogg was in Anchorage. Gates, USDOI; Becker, USNOAA; Brooks, USNMFS; Kent, ADEC; Sam Shaw, ADFG; and Les Paul, USDA, were all present.  
*[AOSC NOTE: If Les Paul, the USDA representative attended, it was not recorded in the teleconference report by the USCG. Additionally, the USEPA account appears to provide Kellogg's correct first name and the correct last name of ADFG's Shaw.]*

-- *NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE*: The ARRT discussed use of dispersants and on-site burning of the oil at the teleconference. Decisions were not made at this time.

-- *USCG-ARRT*: CDR McCall identified which EXXON VALDEZ tanks were damaged, gave the weather (clear and calm, winds less than 10 knots, seas calm) and

said the leaking had slowed substantially. Alyeska was moving every piece of mechanical equipment it had into position, ETA 1500. Additional equipment was being moved from the North Slope, Kenai (CIRO) and the USCG National Strike Force. Booms and skimmers would be used to collect the oil which would be stored aboard an empty tanker in the area. The EXXON BATON ROUGE was on scene and was expected to transfer oil at 1600. A 500-yard safety zone was around the EXXON VALDEZ.

CDR McCall said Alyeska had submitted a dispersant use checklist. Approximately one-half of the slick was in Zone One, a pre-approval area for the FOSC. Alyeska, he said, would submit an *in-situ* burning plan. Exxon had arranged for three ADDSPACS to be delivered to Alaska. The 48-hour weather forecast was winds east and northeast at 10-15 knots, seas two-three feet, approximately Sunday winds would strengthen and might shift to southeast on Sunday night.

CDR McCall said oil storage at the AMT was alright until Sunday at which time the CG would look to getting tankers into the terminal for loading.

Primary concerns of the ARRT were identified as: whether Corexit 9527 dispersant would work in the current weather and sea conditions, whether the industry would be able to deliver the 50,000 gallons it proposed in the time frame when the dispersant would work; that resource agencies, concerned about herring spawning, salmon fry outmigration, and shellfish larvae, did not want dispersant application in the intertidal zone which was extremely sensitive this time of year; the large population of sea otters in the area of Bligh Island and a smaller population around Naked Island; that bird cleaning resources would need to be set up in Valdez (oiled birds were being spotted).

Public affairs primary contacts were provided for the USCG and Exxon/Alyeska and the next teleconference was scheduled for March 25 at 1100. The agenda at that teleconference was to be dispersants, *in-situ* burning, cleanup status, wildlife protection, and logistics.

*[AOSC NOTE: This report is derived from the summary of the ARRT teleconference which was entered into the ARRT E-Mail by the USCG at 1647. That report did not state the time that the ARRT teleconference was held; the time of 1200 was derived from the other reports identified above. The E-Mail teleconference summaries we obtained often did not provide the meeting time. In such cases, the times selected for this chronology will be derived first from information from other attendees; second, from the time set for the teleconference in the previous ARRT report; and third, as 1330, which Paul Gates informed us was the regular meeting time.]*

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USEPA: In addition to what was in the ARRT E-Mail teleconference report, USEPA stated that the meeting indicated that even if only 35 percent of the cargo had been discharged, 10 million gallons of oil might be in the water. A high seas barrier was to be used to contain the spill's southern edge and skimmers would be used. The PACAREA team was to bring boom and there was boom located at Elmendorf. A naval architect and divers were enroute to survey the vessel. Seven people from Canada were coming.

CDR McCall brought up the use of dispersants immediately. There was discussion about the commander's authority to authorize dispersant use. As described, the ARRT Contingency Plan for PWS defined three dispersant use zones representing depth to shoreline ratios. Dispersants were preapproved for Zone One; in Zone Two the decision goes back to the ARRT; in Zone Three dispersants were not approved. The Exxon Valdez was aground about a quarter of a mile out of Zone One,

within Zone Two. The majority of the spill was in dispersant Zone Two. CDR McCall confirmed that he might authorize dispersant use.

*[AOSC NOTE: According to the USCG report of the ARRT teleconference, the ARRT heard that approximately one-half the slick was in Zone One which was the preapproval area.]*

The use of two dispersants, Corexit 9527, the water-based, and Corexit 9530, the solvent-based product, were discussed. Slater commented that dispersants should be tested on the leading edge and asked if the application might be documented on video tape. She said that the call for Zone Two dispersant use should not be made yet. Shaw indicated it was a critical time for shellfish and requested that water column at depth be sampled.

Concerning the use of dispersants, it was brought out that there was not enough energy in the water then to make dispersants useful. Dispersants should only be used on the leading edge of the spill, Zone One. Concerns about Zone Two dispersant use included herring spawn in the area and protecting the habitat as well as the resource.

The ARRT discussed whether or not there was a need to federalize. Because of response provisions in the Alyeska and Exxon Oil Spill Contingency Plans, the ARRT determined that it was not necessary to federalize at this time. Al Allen at the Alyeska command post brought up burning.

1200 *ALYESKA:* The oil slick was three miles wide and five miles long; winds from northeast at 10 knots; seas one foot; visibility 10 miles.

Alyeska hired 32 contract laborers employed for the day shift and 20 employed for the night shift on behalf of Exxon.

-- *ALYESKA/NTSB:* Alyeska had contracted for the services of 32 day shift workers and 20 night shift workers from two independent contractors. An additional 100 workers were available if needed from a third independent contractor.

1200 *AOSC/CDFU:* CDFU had 75 boats ready to respond. Fifteen of the boats were in Tatitlek, just 15 minutes away from the EXXON VALDEZ. Leond called Alyeska again and got a different individual. She was told again someone would call her back. (On June 28 Leond was to tell the Alaska Oil Spill Commission that no one from Alyeska had ever called her back.)

Leond called the USCG, ADEC, any one she could think of, to let them know the fishermen were ready to respond. On one telephone to Alyeska, she was told the company was concerned about using "amateurs," people not on their payroll.

1200 *ALYESKA:* The EXXON BATON ROUGE was on-site to offload the EXXON VALDEZ. USCG quoted three to four hours before offloading was possible. Broken ice might inhibit skimmer operations and oil recovery.

1200 *ADES:* According to ADES's Sey, by noon it was clear that his agency was going to be needed to assist with logistics and communications. Already there was a shortage of commercial aircraft available to fly individuals and equipment into Valdez -- Alyeska and Exxon had already contracted for their use -- and, obviously, there was going to be a shortage of telephone lines and equipment. Sey decided to send Regional Emergency Management Officer Don Drury to Valdez to scope out the situation. Drury was home on leave but accepted the assignment.

*[AOSC NOTE: According to Sey, ADES, through its Commissioner, the state adjutant general of the Alaska National Guard (AK NG), had the ability to mobilize NG aircraft, trucks, and equipment. However, this*

*power could be exercised only when commercial providers were not available and the requesting agency had provided assurances that the tab would be covered.]*

- 1205 *ALYESKA:* The Sea Flyer arrived alongside the EXXON BATON ROUGE with lightering equipment and started offloading hoses and filling the Yokohama fenders with air.
- 1209 *ALYESKA:* Throughout the morning, Alyeska had contacted potential sources in the state for supporting oil barges. Steven Dietrich, Alyeska's vice president of administration in Anchorage, decided to lease two 30,000 barrel barges, one from Seward and one from Homer, and directed both to begin moving toward Valdez immediately.
- 1210 *EXXON:* Robert M. Weatherford, Exxon Shipping Company's business analysis manger, diverted communications equipment from Long Beach, Calif., to Valdez.
- 1214 *ALYESKA:* The AVEC dispatched a message to all pipeline pump stations directing that any available bladders, pumps, and hoses be shipped to the AMT immediately.
- 1215 *EXXON:* Richard A. Smith, an Exxon Shipping Company staff engineer, arrived to evaluate vessel stability.
- 1230 *ALYESKA:* At about this time, McKay landed on the deck of the EXXON VALDEZ in a helicopter. McKay observed that the Sea Flyer was next to the EXXON BATON ROUGE, pressuring up the fenders it had brought out.
- 1230 *EXXON:* The tug Stalwart was alongside the EXXON BATON ROUGE.
- 1230 *NRT/USCG:* Alyeska barge arrived at Bligh Reef, seven hours after the five-hour initial response time required by Alyeska's contingency plan. Oil slick was already 1,000 feet wide and four-five miles long. The barge arrived with two skimmers in tow, two 1,000-gallon bladders, and 8,000 feet of containment boom for a spill of 10 million gallons. The two on-scene skimmers began recovering oil near the EXXON VALDEZ.
- [AOSC NOTE: Alyeska's own chronology reports that the Sea Flyer, a tugboat loaded with lightering equipment, arrived at 1205 alongside the EXXON BATON ROUGE, which was on-site to offload the EXXON VALDEZ. The contingency barge with skimmers, towed by the tugboat Pathfinder, isn't shown arriving at the spill site until 1454 and the skimmers aren't at work until after 1515. This means the response barge was not seven hours after the five-hour initial response time but arrived nearly nine and one-half hours afterwards.]*
- 1244 *ALYESKA:* William Howitt, Alyeska's manager of engineering in Anchorage, and Shier discussed mobilizing additional personnel. VECO, a company that provided contract labor to Exxon, should have 30-40 people available at a moment's notice and another 100 people at longer call. The decision was made to provide for at least a 40-50 person camp in Valdez.
- 1245 *ALYESKA:* Henman informed BP's Nelson that dispersants were on the way and it seemed that the USCG was favorable regarding their use. Henman had not heard the final word, however.



XXXX      *ADN:* State-licensed harbor pilots, with little to do since no tankers were allowed in port, ran reconnaissance missions in their swift speedboats around the tanker, giving the USCG routine reports on the tanker and the spill.

1300      *STATE/NTSB:* Aboard the EXXON VALDEZ, the Coast Guard investigators began to interview Captain Hazelwood.

1300      *AOSC NOTE:* It appears from an Alaska National Guard (AK NG) telephone report of state emergency duty, dated March 28, that effective at this time LTC (Willard) Masker was named Task Force Commander of AK NG activities to provide aircraft and other support in both Valdez and Anchorage towards mitigation of the EXXON VALDEZ oil spill.

1300      *USEPA:* Following the ARRT meeting, USEPA's Kellogg phoned the regional office. He was informed that the USEPA Administration wanted the agency in Valdez, available and ready to support the FOSC.  
             In Juneau, Lautenberger spoke with CAPT Haines and CDR Dennis D. "Buzz" Rome (chief of the Marine Environmental Protection Branch, USCGD17). CAPT Haines was confident EPA could be of help in Valdez. Lautenberger then contacted Kellogg and Johnson and they decided that Kellogg would drive to Valdez on Saturday morning. Lautenberger would attend the ARRT meeting in Anchorage and fly to Valdez on Monday morning.

1306      *ALYESKA:* Foss Maritime Company confirmed that Foss Barge 255 and the 3,000 hp. tug Jeffery Foss in Cordova, and Foss Barge 248-P1 and the tug Stacey Foss in Homer, were immediately available.  
             *[AOSC NOTE: See Alyeska's entry at 1800. It appears that the tug out of Homer was the Daniel Foss, not the Stacey Foss.]*

1310      *NRT/USCG:* USCG MSO, Valdez, estimated quantity released was now 250,000 barrels (10.5 million gallons).

--      *AOSC NOTE:* USCG POLREP Two actually indicated at this time that the estimate of quantity released was raised to 200,000 barrels (or 8,400,000 gallons). Small quantities still leaking.

--      *NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE:* The estimate of cargo lost from the EXXON VALDEZ was raised to 200,000 barrels.

1310      *USCG POLREP TWO:* Weather: Winds north at 10 knots, seas calm, visibility 10 miles, 35 degrees F.

1313      *ALYESKA:* Exxon informed the AAEC that 100 drums of dispersants would leave Houston at 0800 on March 25 and fly directly to Valdez.

1315      *EXXON:* The Exxon Company plane made a fueling stop in Seattle.

1322      *EXXON:* From the Seattle stopover, Rassinier contacted AAEC for an update and reviewed equipment availability with Alyeska's Henman. Rassinier requested Alyeska explore *in-situ* burning.

1337      *ALYESKA:* Exxon's Rassinier and Alyeska's Shier coordinated bird rescue efforts.

DAY ONE (Friday, March 24)



1345 *T/V EXXON VALDEZ DECK LOG:* Tug Stalwart and fender alongside.

1348 *EXXON:* Rassinier confirmed with the Houston Command Center that the following planes were enroute: 707 ex U.K., DC-8 ex Oakland, C-130 ex Houston, and C-130 ex California to Phoenix.

1350 *EXXON:* Gary Gorski, Exxon Shipping Co.'s tanker section supervisor, departed Baton Rouge, La; ETA Anchorage 2356.

1355 *T/V EXXON VALDEZ DECK LOG:* Fender made fast, tug away.

1400 *ALYESKA:* Alyeska arranged to have dispersants and fire systems shipped via Northern Air Cargo.

1400 *USCG POLREP TWO:* Pollution fund opened with \$25,000 for the purpose of staging USCG Strike Team equipment.

1401 *ALYESKA:* Exxon requested a list by 1600 of contractual commitments made for it by Alyeska.

1420 *ALYESKA:* Exxon informed the AAEC that, due to the depth of the water near Bligh Reef, the EXXON BATON ROUGE would have to distance itself from the EXXON VALDEZ during the lightering process.

1435 *EXXON:* Exxon's Botto, Derryberry, and Sowden departed Houston; ETA Anchorage 2356.

1439 *ALYESKA:* USCG CDR McCall updated Shier.

1444 *ALYESKA:* Fifty drums of dispersants were at the AMT and 314 drums elsewhere in the state for a total of 364 drums. The decision was made to stage all drums of dispersants not in Valdez but at the Anchorage Airport, since potential weather problems in Valdez could otherwise ground all flights.

1454 *ALYESKA:* The Pathfinder arrived at the spill site with the contingency barge and response equipment, one-half mile south of Bligh Reef buoy.  
*[AOSC NOTE: The five hour response time in Alyeska's oil spill contingency plan was to a location further from Valdez than the EXXON VALDEZ spill site. Alyeska's chronology indicates that at 0030 the USCG notified Barnum, Alyeska's acting supervisor of the Marine Department's A shift at the terminal, of the grounding. This means a response time for the contingency barge of 14 hours and 24 minutes. If one treats the arrival of the Sea Flyer with lightering equipment alongside the EXXON BATON ROUGE at 1205 as the initial response, it still took 11 hours and 35 minutes to respond.]*

-- *ADN:* By the time Alyeska got its equipment out to the scene in mid-afternoon, oil had stopped leaking from the tanker. Falkenstein suggested Alyeska try to find the leading edge of the slick and stop it.

-- *ALYESKA/NTSB:* Alyeska determined that the most effective means of responding to the massive oil slick was to deploy the equipment on the contingency

barge halfway between the EXXON VALDEZ and the leading edge of the slick. This decision permitted the mechanical recovery equipment to operate where the oil slick would be the thickest rather than at the leading edge where the oil slick was the thinnest. (The CG's Chief Executive Officer, LCDR Falkenstein, was later to testify that this was the proper strategy for dealing with the immense spill.)

-- *STATE/NTSB:* When the contingency barge finally did arrive, the equipment (booms and skimmers) were not properly deployed to contain and clean up the oil at the leading edge as prescribed in Alyeska's Oil Spill Contingency Plan.

1500 *ALYESKA:* Alyeska's Baldrige attempted to contact USCG LCDR Falkenstein on the EXXON VALDEZ to receive direction from the USCG on where to lay boom. Baldrige spoke with the ship's radio operator who promised to relay the message. The Pathfinder began tying Sea Packs to the barge.

1500 *NTSB FACTUAL REPORT-TOXICOLOGY:* A urine sample was taken from VTC staff member, B.L. Blandford. The urine sample tested at .20 percent ethanol. Drug results for Blandford were negative.

*[AOSC NOTE: No blood sample was taken from Blandford. The reason is not provided in the report. According to NTSB interviews and VTC Log Sheets, Blandford assumed civilian watch at the VTC at 2345 on March 23 and was relieved of his watch at 0745 on March 24. The ADN stated on March 31 that the NTSB lead investigator said Blandford had drinks after getting off duty and witnesses said he was not drunk while on duty.]*

1500 *USCG-ARRT:* Alyeska submitted an *in-situ* burning plan to USCGD17 which was forwarded to the ARRT for consideration.

-- *ALYESKA-T. POLASEK:* The ARRT received Alyeska's request for a burn permit. Alyeska continued to mobilize the necessary resources for *in-situ* burning, such as fireproof boom and ignition sources.

1500 *USDOJ-OEPR:* USDOJ's Bergmann and USFWS's Robinson-Wilson linked up with ADFG's Slater and started a drive together to Valdez.

1510 *NRT/USCG, ALYESKA:* The USCG FOSC granted permission only for a dispersant test on the leading edge of the sheen.

-- *ALYESKA:* The dispersant test was for the leading edge of the slick in Zone One.

-- *STATE/NTSB:* The FOSC approved a trial application of dispersants. Because the State of Alaska had preapproved the use of dispersants in Zone One, no further state approval was necessary for their use.

XXXX *EXXON:* Most of the oil was in Zone Two where use of dispersants was conditional and the FOSC must obtain USEPA and ADEC approval prior to application.

1515 *ALYESKA:* The MARCO Class V and VII skimmers were cut loose from the contingency barge and began skimming approximately three miles from the EXXON VALDEZ.

1517 *ALYESKA*: The AVEC received a report that oil was on shore at Reef Island; oil was approximately 50 feet off shore of Bligh Island; oil was headed towards Glacier Island; and the shipping lanes were almost closed.  
Clean Sound, a Seattle-based oil spill cooperative group, was on alert.

1524 *ALYESKA*: The AVEC was informed that two remaining Sea Packs had been checked out and were ready to go. Shier ordered the Sea Packs dispatched.

1530 *T/V EXXON VALDEZ DECK LOG*: Tugs Sea Flyer and Pathfinder alongside.

1530 *ALYESKA*: Baldrige again tried unsuccessfully to reach LCDR Falkenstein for booming instructions. He was told that Falkenstein was on the bow and unable to talk right now.  
The Pathfinder went into the heaviest part of the slick to start its skimming operations, but encountered gas levels too high for the safety of the crew and went to a location one and one-half miles south of the EXXON VALDEZ.  
[AOSC NOTE: CFMC attributes to Alyeska's Theo Polasek information that Alyeska's strategy was not to contain the slick at the ship or to try to recover all the oil, but was to keep the spilled oil in deep water where dispersants could be used.]

1544 *T/V EXXON VALDEZ DECK LOG*: Fender made fast. Awaiting USCG and Exxon decision on lightering or options.

-- *EXXON*: Fenders were secured to the EXXON VALDEZ.

1545 *ALYESKA*: The Sea Flyer completed placing the second fender along the portside of the EXXON VALDEZ.

1550 *NTSB FACTUAL REPORT-TOXICOLOGY*: A urine sample was taken from VTC radioman L. Weidman. Testing indicated the presence of ethanol and drugs was negative.

XXPM *ADES*: ADEC requested the use of a military "Skycrane" (CH-54) to move communications equipment for ALASCOM and aircraft to use with infra-red equipment. These requests were forwarded from ADES to the AK NG. Pete Wuerpel, ADES's telecommunications specialist, would fly to Valdez in the morning to assist Drury and communications operations there.

XXPM *GOV'S OFFICE, STATE/ADEC*: When Governor Cowper arrived at the Valdez airport, he found Commissioner Kelso waiting for him. The Governor spoke quickly to reporters converged there and then left with Kelso via chartered aircraft to fly to a cove near the EXXON VALDEZ where they were met by USCG boat to transport them to the vessel.

1600 *ALYESKA*: Willard Oftedal, Alyeska's supervisor of power vapor/oil measurement and storage, Valdez, and one of his staff members assisted booming operations by directing vessels from the air.  
Oil spill thickness was observed from the Patty Anne, chartered by Alyeska as a response vessel. Thickest oil was about 0.12 inches and thinnest was approximately 0.0016.

1600 *EXXON*: Three Way DC-8 departed Oakland for Anchorage with skimmers, Clean Bay equipment.

1600 *NTSB FACTUAL REPORT-TOXICOLOGY*: A blood sample was taken from VTC radioman Weidman. Testing indicated the presence of ethanol and drugs was negative.

1600 *ADES*: Drury, ADES's regional emergency management officer, left in his private vehicle for the drive to Valdez.

1603 *ALYESKA*: Mercer discussed with Alyeska's Nelson opening 100 rooms in a temporary camp at the AMT.

1617 *ALYESKA*: The tugboat Champion, on lease to Alyeska from Crowley, was underway from Crowley Dock to the AMT small boat harbor to pick up the two remaining Sea Packs.

1620 *ALYESKA*: A mechanic, delivered by the USCG, was on site and working on a skimmer (the Vikoma Sea Skimmer) deployed from the contingency barge.

1625 *ALYESKA*: Spiltec's Allen reported that the dispersant test would be conducted in about two hours. CDR McCall was to observe.

1630 *ALYESKA*: The Vikoma Sea Skimmer was repaired and deployed into the water.

1635 *EXXON*: Pilot Anthony Joselyn boarded the EXXON BATON ROUGE for approach to the EXXON VALDEZ.

1640 *ALYESKA*: Donald Ruskauff, an Alyeska contracts engineer, confirmed arrangements for the contract boat, M/V Constructor, from General Marine Services to proceed to Valdez.

1645 *NRT/USCG, ALYESKA*: USCG vessel 32323 was underway with Alaska Gov. Steve Cowper and two of his assistants on board.  
*[AOSC NOTE: ADFG identified Commissioner Kelso as one of the persons who went to the vessel with the governor. Our best information to date is that one or two other individuals from the group of reporters who met the governor at the airport, vs. one of his assistants, were on the flight that took the governor out near the EXXON VALDEZ.]*

1647 *ALYESKA*: Runnels reported that the lightering operations were on hold by USCG order, pending word from a naval architect from Houston.

1650 *ALYESKA*: The AVEC was informed that the landing craft Itswoop was expected to arrive in Valdez at 2100 and would be loaded with bladders and fittings at Fluor Dock.

1656 *ALYESKA*: Robinson of the AVEC requested that Spiltec's Allen send a helitorch and spill bucket from Oregon for tomorrow afternoon.

1658 *ALYESKA*: The tugboat Champion, under contract to Alyeska, departed for the spill site with two more Sea Packs (3200 feet of boom).

1700 *T/V EXXON VALDEZ DECK LOG*: Watch relieved.

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1700-0000 *T/V EXXON VALDEZ DECK LOG:* 3rdM Cousins was again on duty as watch officer. He stood two successive watches, first with ABs Jones and Peacock and then with ABs Claar and Radtke.

1700 *NRT/USCG, ALYESKA, ADFG:* The Coast Guard 32323 delivered Governor Cowper and assistants to the EXXON VALDEZ.

1700 *STATE/NTSB:* As he recounted later, Commissioner Kelso observed at this time that the leading edge of the oil slick had not been boomed nor had the tanker. The boom that was deployed was not well directed, being located in the slick rather than at its leading edge. The larger skimmer was not operating. The two small skimmers did not appear to be working in any systematic fashion and were observed within the slick and not at the leading edge.

-- *ADN:* There was no cleanup operation anywhere near the disabled tanker. The crews were six or seven miles away, trying to turn the leading edge of the oil and keep it way from the beaches. Alyeska officials later said the company's strategy was to hold the slick in deep water where the company thought chemical dispersants would be used to sink and scatter the oil.

1700 *ADFG:* An Alaska State response office began full mobilization in Valdez. ADEC took the lead. ADFG, ADES, AK NG, the CAP, and other state and federal agencies established field offices. The Exxon Company set up a command post. Press representatives from around the world began to arrive. The population of Valdez, which was ordinarily about 3,500 in the winter, was swelling.  
The flow of oil through the trans-Alaska pipeline was reduced to 38 percent of its capacity, from 2.1 million barrels a day to 800,000 barrels a day.

1700 *ALYESKA:* Baldrige unsuccessfully tried to contact LCDR Falkenstein for a third time to receive booming instructions. His later recollection was that he was told that Falkenstein was "too busy" to talk with him now.

1700 *EXXON:* Exxon's Weatherford telephoned the USCG PACAREA Strike Team and informed them of the Houston Command Center. Weatherford was advised that the Strike Team had sent eight personnel plus equipment to Valdez.

XXPM *ADES:* ADES staffed an Emergency Operations Center at its office in Wasilla which was kept open Friday evening and Saturday and Sunday.

1704 *ALYESKA:* Pugh approved a request for additional contractors for tonight's shift.

1707 *ALYESKA:* Trans-Alaska Pipeline Pump Stations One and Two were ordered to send 10,000 and 20,000 gallon bladders, all of their pumps, and all of their three-inch and four-inch hose.

1709 *ALYESKA:* CDR McCall arrived at the AVEC.

1716 *ALYESKA:* Ruskauff confirmed a status report from Foss Maritime that the tug Jeffery Foss and Foss barge had departed Cordova late that afternoon for the spill site at Alyeska's request.

1720 *ALYESKA*: CDR McCall and Alyeska's Robinson left the AVEC for the training room for briefing and later would leave for a flyover.  
 AVEC leased three contract boats located at the boat harbor in Valdez. Two of the boats would work this night, assisting in deploying boom.

1727 *ALYESKA*: The AAEC requested that AVEC contact CIRO to arrange the shipment of diagonal retaining braces for bucket helicopter arms.

1730 *EXXON*: Borgen, Deppe, and Myers arrived Valdez from the Exxon West Coast Fleet Office in Benicia, California.

1730 *STATE/NTSB*: Bill Lamoreaux arrived in Valdez and assumed the duties of State On-Scene Coordinator (SOSC).

1737 *EXXON*: Iarossi, Duncan, Rassinier, Marston, Nicholas, and Lindblom arrived Valdez from Houston. They joined Alan W. Maki (Exxon Biomedical Sciences, Inc.), Allen, Cirigliano, Borgen, Deppe, and Myers in Valdez.

-- *ADN*: The Exxon corporate jet with Iarossi and his contingent on board arrived Valdez. They went immediately to the AMT and assumed control over much of the oil spill, taking over the lightering operation, the dispersant discussion, and public relations from the Alyeska employees. Additionally, the company set up a command post at the Valdez Westmark hotel.

1741 *ALYESKA*: Pump Station One and Pump Station Two were blocked by snow, delaying the transportation of oil spill response equipment from Prudhoe Bay.

1745 *ALYESKA*: Eighty barrels were offloaded from the Class VII Skimmer into the Pathfinder's slop tank.

1745 *EXXON*: Iarossi instructed Deppe to go to the EXXON VALDEZ to assess the situation and to relieve Captain Hazelwood.

1755 *EXXON*: Iarossi met CDR McCall for a discussion. McCall indicated the need to test dispersants.

1800-(1830) *NRT/USCG*: Dispersant trial application was conducted with less than satisfactory results, due to lack of mixing energy. Use of dispersants was deemed inappropriate at this time.

-- *NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE*: The FOSC conducted an oil dispersant test with unsatisfactory results.

-- *ALYESKA-POLASEK*: The actual dispersant test was conducted. Shortly after the test, Exxon assumed responsibility for obtaining approval for dispersant use.

-- *STATE/NTSB*: A helicopter capable of applying a relatively small amount of dispersant by use of a spray bucket was outfitted and commenced the dispersant test. During the first 24 hours after the spill, the only capability Alyeska had to deploy dispersants was this helicopter with its limited capacity.

-- *PWSCA/ADEC*: While aboard the T/V EXXON VALDEZ, Governor Cowper personally observed the dispersant test.

DAY ONE (Friday, March 24)

[Speaking of the test he watched in a letter April 28, 1989, to Lawrence Rawl (chairman and chief executive officer, Exxon Corporation), Governor Cowper indicated that the chief problem with the use of dispersants in the first few days of the spill was that they didn't work, the waters were too calm. These were ideal conditions for recovery of oil using boom and skimmers and Exxon and Alyeska should have seen real progress recovering oil using those methods, although that did not happen, the Governor indicated.]

-- *USCG-ARRT:* The test of helicopter-deployed Corexit 9527 on PM 24 March resulted in no observable dispersion of oil. Surface was virtually flat calm with no apparent mixing energy.

-- *STATE/ADEC:* ADEC's Lamoreaux observed the helicopter with dispersant-bucket spray.

-- *PWSCA/ADEC:* The dispersant test carried out in Zone One, where approval from the USCG was all that was required, used a helicopter and little spray arm and bucket under the helicopter. The deployment method and calm conditions produced ineffective results.

-- *AOSC NOTE:* Alyeska's chronology does not show a dispersant trial on March 24. Exxon claimed in its chronologies provided to the AOSC that there was a Friday afternoon Alyeska test of dispersants sprayed from a helicopter before the Exxon team arrived and that the FOSC decided that the application was ineffective. The compiler of this chronology did not come across any information that there was a dispersant test other than at 1800, which time was provided not only by the USCG but by Alyeska's Polasek.

1800 *ALYESKA:* Alyeska's "A" Shift was on duty, as well as 26 Price personnel. Fourteen of the contract personnel were assigned to shore support, 12 were deployed at the spill site.

The Vince Peede departed for the spill site carrying Sarnacki, who was Baldrige's relief, and Sarnacki's "C" crew, as well as food and clothing. Boats currently under contract included the Constructor, Glacier with ODI skimmer, Jeffery Foss and barge, and Daniel Foss and barge.

314 barrels of dispersants were available for mobilization to Anchorage for staging. An ADDSPAC from San Francisco was expected to arrive in Anchorage at 0600 on March 25 and 1,000 feet of fire boom was expected to arrive in Valdez from BP at 2300 on March 25.

*[AOSC NOTE: According to the NRT Report, the ODI skimmer, towed by two vessels, is a boom system using a barrier to contain oil for recovery.]*

1800 *STATE/ADEC:* Bruce Baker, ADFG/Juneau and Mike Wiedmar, ADFG/Anchorage, began to drive to Valdez from Anchorage with additional sampling equipment.

1800 *ADEC:* ADEC staff observed that no booms had been deployed to the spill or to protect sensitive areas and only two of seven skimmers were operating.

1800-1930 *EXXON:* A press conference, one and one-half hours, was held at the Valdez Civic Center.

*[AOSC NOTE: USNOAA put the time of the Exxon press conference at 1900 as did Alyeska. According to Exxon, the governor was present and, as we shall learn below, the governor could not have made a press conference at 1800. Thus, for purposes of this chronology, we have moved Exxon's commentary about the press conference to 1900.]*

- 1805      *ALYESKA:* The AVEC was informed that the Exxon group had arrived at the Valdez Westmark.
- 1810      *ALYESKA:* One of the deployed Sea Packs failed when the boom and main cuff were torn.
- 1813      *ALYESKA:* Two DRA tanks for recovering oil were being staged at Fluor Dock.
- 1820      *NRT/USCG, ALYESKA:* Members of the USCG PACAREA Strike Team arrived in Cordova.
- 1825      *EXXON:* Rassinier telephoned Houston Command Center regarding aircraft mobilization.
- 1825      *USCG POLREP THREE:* Coast Guard Vessel 32323 transferred news media personnel from float plane to T/V EXXON VALDEZ.
- 1834      *ALYESKA:* Frank Heffernan from the AAEC confirmed with the AVEC arrangements to pick up 40 VECO people from Kenai arriving at Valdez airport at 0835 on March 25.
- 1843      *ALYESKA:* The AVEC was informed that Exxon had made arrangements with the vessel Battle Born to transport three of their people to the EXXON VALDEZ.
- 1852      *ALYESKA:* Alyeska received a "FAX" from CIRO providing a supplemental list of material and equipment subject to the CIRO/Alyeska use agreement. The equipment included bladders, skimmers, boom, dispersants, and burn equipment.
- 1854      *ALYESKA:* Alyeska was informed that although the ADDSPAC from San Francisco was expected to arrive in Anchorage at 0600 on March 25, the crew must rest until 1600 that afternoon.
- XXPM      *STATE/NTSB:* The state approved a request from Alyeska/Exxon to conduct a test burn and issued a burn permit Friday evening.
- 1900      *FDNM:* The *Valdez Vanguard*, circulation 1,800, published the first extra its publisher could remember, and became the first newspaper in Alaska to hit the street with a photo of the tanker grounded in Prince William Sound. The press run for the edition was 2,000. The governor didn't buy a copy. The publisher's daughter moved out of her apartment over the paper in order to provide sleeping bag room for visiting reporters unable to find rooms in town.
- 1900-2030      *USNOAA:* Exxon conducted a press and public briefing. There were approximately 100 attendees including press, oil company and government representatives, and members of the community. Exxon representatives were Iarossi and Exxon scientist Al Maki. Exxon responded to community concerns which included the herring



resource, what Exxon planned to do next, the use of local people to help with clean-up, why equipment wasn't stockpiled, and why the initial response took too long.

According to Exxon, initial response decisions were being made by Alyeska and monitored by the Coast Guard. Once Exxon's response team was in place and operational, which was expected tomorrow, Exxon would take responsibility for decisions regarding deployment of response effort and equipment.

Exxon had determined that about 300,000 barrels needed to be lightered off the EXXON VALDEZ before the vessel could be refloated. The vessel was grounded on the starboard side with about 50 feet of water on the port side.

The vessel had a crew of 20 and there was nothing to indicate that more people on board would have prevented the accident. The cause of the accident was unknown at this time. There was no indication of electrical or mechanical failure. The ship was fully operational. There was some maneuvering in and around ice.

Exxon would assume full financial responsibility for any claims made as a result of this spill.

The recent EXXON HOUSTON spill in Hawaii cost Exxon about three million dollars, most of which was used to mobilize equipment that wasn't used. Only about 800 barrels was released in that incident.

-- *EXXON:* At the press conference, Iasrossi emphasized the need to move quickly to disperse oil.

Governor Cowper stated: "There has been a lot of speculation on the use of dispersants. Everybody realized the risk that that poses to marine life. We were already seeing some effect on marine life just because of the oil. I want to assure everybody that dispersant was not going to be used in anything other than a carefully targeted way. We want to try to make sure that we check back with the fishing community, that we check with the Fish and Game, and to do as little damage as possible. You can't use dispersants without doing damage to marine life. That's clear. But we want if possible to keep the oil off the beaches."

190X *HW PRETRIAL-LAWN:* Lawn finally left the EXXON VALDEZ. He was relieved by LeBeau. LeBeau, unlike Lawn, was part of the investigation of Captain Hazelwood.

1907 *USCG POLREP THREE:* Coast Guard Vessel 32323 picked up Governor Cowper from EXXON VALDEZ and transported him to a float plane.

-- *ALYESKA:* Governor Cowper departed the EXXON VALDEZ.

1908 *ALYESKA:* The AVEC ordered ERA Helicopter 371 EH to be prepared for another flyover at first light in the morning.

1910 *USAF:* Valdez sunset.

1910 *ALYESKA:* Approximately 210 barrels of oil were recovered.

All recovered oil containers, including those on the Class V and VII skimmers, and the Pathfinder slop tanks were full. Therefore, skimming operations were ceased until additional storage capacity arrived. Rex Brown, Alyeska's Ballast Water and Treatment supervisor, Valdez, requested the USCG's permission to discharge recovered oil into the center tanks of the contingency barge.

1919 *ALYESKA:* The USCG stated that its preliminary response to AVEC's request regarding offloading of oil into the barge was "no."

*[AOSC NOTE: We have already indicated that the USCG had not certified this contingency barge to carry oil. But, whether the oil storage bladders were being used and, if so, were full, or whether they were not being used and, if so, why not, was not indicated.]*

- 1922 *EXXON:* Orders were received by the EXXON BATON ROUGE to go alongside the EXXON VALDEZ.
- 1930 *ALYESKA:* The tugboat Sea Flyer proceeded with the EXXON BATON ROUGE towards the EXXON VALDEZ.
- 1955 *T/V EXXON VALDEZ BRIDGE ROUGH LOG:* EXXON BATON ROUGE was approaching.
- *T/V EXXON VALDEZ DECK LOG:* EXXON BATON ROUGE made approach.
- 1955 *ALYESKA:* The tugboat Champion with two Sea Packs (3,200 feet of boom) was abeam Bligh Reef buoy.
- 1956 *ALYESKA:* The USCG called the AVEC and reported that a Sea Pack was underwater.
- 2000 *ALYESKA:* The Champion prepared to take the torn Sea Pack to shallow water for repair while the Pathfinder moved another Sea Pack into position for deployment.
- 2000 *EXXON:* ConAir contacted Rassinier who told ConAir to come to Valdez with DC-6 spray aircraft.
- 2000+ *EXXON:* After his initial meeting with CDR McCall and the press conference, Iarossi held a meeting with the Exxon Response Team to review status of the EXXON VALDEZ, lightering plans, oil spill location, current Alyeska actions to limit spill, plans for use of dispersants, plans for use of burning, equipment mobilization status, personnel enroute, operations center, etc.
- 2009 *ALYESKA:* Baldridge provided the AVEC with an update: Pathfinder full, Class VII full, Class V broken down with belt problems, work boats available, Sea Pack was being repaired. Priority was to boom the ship when clearance was granted, although booming could not be done now because the process of placing fenders and lightering may destroy the boom.
- [AOSC NOTE: According to Alyeska, as indicated above, at 1700 Baldridge tried to contact LCDR Falkenstein for booming instructions and failed to reach him. The Alyeska chronology does not indicate how Baldridge got the information he relayed to the AVEC at 2009 that booming could not be done during the setup for lightering because of the possibility the boom would be destroyed.*
- According to CFMC, apparently just before the EXXON BATON ROUGE was to come alongside the EXXON VALDEZ, Alyeska again asked if the tanker was to be boomed. Someone from the USCG on the vessel told Alyeska not to boom the ship because doing so would interfere with the EXXON BATON ROUGE.*
- According to a report in the ADN on May 14, CDR Falkenstein denied one Alyeska request to boom off the EXXON VALDEZ. Alyeska made that*

*request shortly before the EXXON BATON ROUGE was to maneuver alongside. The booms would have been in the way, CDR McCall later said.]*

2010 *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG:* EXXON BATON ROUGE off port side.

-- *NRT/USCG:* EXXON BATON ROUGE was alongside EXXON VALDEZ, port-to-port.

-- *NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE:* The EXXON BATON ROUGE was moored alongside of the EXXON VALDEZ for lightering operations.

-- *CFMC:* After hours of preparations and maneuvering, the EXXON BATON ROUGE was finally joined to the EXXON VALDEZ. Rigging of lightering hose began immediately.

2025 *ALYESKA:* The vessel Alba II, chartered by Alyeska, was being loaded with boom equipment at the AMT. Four empty 6,000 gallon tankers, normally used to transport Drag Reduction Additive, arrived at the AMT.

2027 *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG:* First line.

2030 *NRT/USCG, ALYESKA, EXXON:* The contract divers arrived at the EXXON VALDEZ to survey damage.

2030 *ADN:* Alyeska asked again, after the EXXON BATON ROUGE was alongside, if Exxon wanted the ship boomed. Exxon said no, according to O'Donnell.

2030 *ALYESKA:* The Champion finished deploying two Sea Packs. The Vince Peede arrived at the spill site with a crew change. Baldrige decided to remain on scene and he and Sarnacki shared supervisory duties on-site.  
Sarnacki and Baldrige established three principal objectives for crew: 1) exclusionary booming to protect Bligh Island; 2) diversionary booming from the stern of the EXXON VALDEZ to as close to Bligh Reef buoy as possible to divert spill into deep water; and 3) continued skimming operations.  
Kevin Bohlman, an Alyeska "A" shift marine technician, came out with the crew change and was assigned to the Class V skimmer. When he arrived, mechanics were changing a skimmer belt which had apparently been cut by a metal bar while in operation.

2030 *ADES:* ADES's Drury arrived in Valdez, began to scope things out, and then retired for the night.

2035 *ALYESKA:* The Champion was dispatched to retrieve the sunken Sea Pack.

2039 *ALYESKA:* The AVEC was informed that lightering would start in two to four hours.

2040 *ALYESKA:* Pugh and others met with Exxon personnel when they arrived. Exxon personnel were briefed in the AVEC about the location of Alyeska equipment and Alyeska activities to date.

2040 *EXXON*: Rassinier met with Alyeska emergency team in the AVEC to review people and equipment available or on order. He agreed to meet for overflight at the airport at 0800 in the morning.

2043 *ALYESKA*: The AVEC ordered Baldridge to run boom from the stern of the EXXON VALDEZ and angle it towards Bligh Reef buoy. The AVEC was sending 700 feet of additional boom. Sea Packs were to be held in reserve.

2056 *ALYESKA*: Alyeska's Marine Operations gathered boom stationed at Berths One, Four, and Five at the AMT. The Alba II would transport the boom to the site.  
The USCG relayed AVEC instructions for the vessel Blue Fox to proceed to the spill site and assist the Pathfinder, and for the Itswoop to pick up bladders and hose at the terminal.

2100 *ADN*: Alyeska has said that a second flotilla of cleanup gear was sent out from Valdez just before 2100 hours.

2100 *ALYESKA*: AVEC was informed that the USCG PACAREA Strike Team and two C-130's would arrive in Valdez in the morning with boom and high seas barrier skimmer, which would be loaded aboard the USCG Cutter (USCGC) Sedge and transported to the site.

2100 *ALYESKA*: The first connex of containment boom was deployed.

-- *ALYESKA/NTSB*: After arriving at the scene, Alyeska initially deployed diversionary boom to protect the immediately threatened shores of Bligh Island and Reef Island. Alyeska then deployed containment boom at the leading edge of the oil slick (four to five miles from the EXXON VALDEZ) to attempt to control the oil in preparation for *in-situ* burning and dispersant application. (This strategy proved successful until the abrupt change in weather.)

2100 *EXXON*: Three Way DC-8 arrived in Anchorage from Oakland with skimmers and Clean Bay equipment.

2100 *USDOJ-OEPR, EXXON*: Bergmann, Robinson-Wilson, and Slater arrived in Valdez. Bergmann met immediately with a representative of the IBRC.

2100-2340 *ALYESKA*: Between 2100 and 2340, Howitt provided a status report to BP's Nelson. Also between 2100 and 2340, Exxon's Rassinier provided Howitt at the AAEC with a dispersant report: the SAT C-130 was carrying 100 to 150 drums and was estimated to arrive at 1630 on March 25; the MarkAir C-130 was carrying an ADDSPAC and a half load of dispersants and was expected to arrive in the morning of March 26; the USCG C-130 was expected to arrive with the PACAREA Strike Team at 0800 on March 25; the SAT 707 from Houston was carrying 140 to 160 drums; the ConAir DC-6 from British Columbia was carrying 800 to 1,000 drums; the C-130 from Phoenix was carrying an ADDSPAC and was estimated to arrive at 0600 on March 25.

2130 *ALYESKA*: One Monark was deploying a connex of boom off the barge; one Grayling was standing by to deploy more boom; the Sea View was off the bow of the barge for spotlight deployment; one Grayling was shuttling people and supplies to the tanker.

2133 *ALYESKA*: The Champion reported that the Sea Pack which had sunk had resurfaced and was performing properly.

2144 *ALYESKA*: The AVEC was informed that a Convair airplane was leaving Kenai at 0845 on March 25 carrying 40 people from a VECO work crew.

2144 *EXXON*: The EXXON BATON ROUGE was all fast to the *EXXON VALDEZ*.

2154 *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG*: EXXON BATON ROUGE all fast.

-- *NRT/USCG, ALYESKA*: The EXXON BATON ROUGE was all fast alongside the *EXXON VALDEZ*.

2155 *EXXON*: The SAT C-130, which originated in California, departed Phoenix, where crews and equipment had been assembled, for Anchorage with ADDSPAC.

2200 *ALYESKA*: Three tugs were currently in use chasing icebergs that were threatening both the dive boats and the boom.

2200 *EXXON*: Deppe, Myers, Nicholas, and Marston arrived at the *EXXON VALDEZ*. Deppe went to the bridge to determine vessel status.

2210 *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG*: Engine room control.

2210 *ALYESKA*: Martech International in Anchorage reported to the AVEC that the Martech M/V Glacier was under contract. It had left Homer and would arrive at the spill site at approximately 2300 March 25 with an ODI skimmer from CIRO.

2215 *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG*: First lightering hose connected.

-- *NRT/USCG, ALYESKA*: The first lightering hose was connected between the *EXXON VALDEZ* and the *EXXON BATON ROUGE*.

2215 *ALYESKA*: The contingency barge, which was one-half mile south of Bligh Reef buoy, was under way in tow with the tugboat Pathfinder to Bligh Reef buoy. The Class V and VII skimmers and the Sea Packs were also in tow. The goal was to shorten the distance that the boats had to tow the boom to the tanker. Alyeska sent out additional containment boom (5,700 feet) from Berths One and Six at the AMT on the Alba II.

2225 *ALYESKA*: The contingency barge was stationary. Deployment of the second segment of boom began. The Yellow Monark and Yellow Grayling were connecting boom from the *EXXON VALDEZ* to the buoy.

2230 *ALYESKA*: The Class V skimmer was repaired.

2230 *EXXON*: The EXXON SAN FRANCISCO arrived Hinchinbrook.

2230 *CFMC*: Alyeska again asked USCG personnel on the *EXXON VALDEZ* if they wanted the ship boomed. At this time the EXXON BATON ROUGE had arrived on the scene and was moored to the *EXXON VALDEZ*. Again the answer was no. (It

was not until 0900 the next day that Exxon ordered the booming of the two Exxon tankers.)

2237 *EXXON*: Two six-inch cargo hoses were connected between the EXXON VALDEZ and EXXON BATON ROUGE.

2238 *NRT/USCG, ALYESKA*: The second lightering hose was connected between the EXXON VALDEZ and the EXXON BATON ROUGE. Before lightering commenced, divers were to conduct an underwater damage survey of the hull.

2240 *EXXON*: Before pumping, the divers' report and consultation with Richard Smith, an Exxon Shipping Company staff engineer, was awaited.

2300 *ALYESKA, EXXON*: Exxon Engineer Smith gave preliminary advice not to allow the EXXON VALDEZ to move from the reef due to fear of capsizing.

-- *EXXON*: Smith gave preliminary advice about pumping out undamaged port side tanks.

Captain Hazelwood departed the EXXON VALDEZ for Valdez; Deppe was in command.

Deppe agreed that portable pumps would be needed for discharge of damaged tanks, pumping from the top while letting water enter from the bottom.

2300 *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG*: Began booming vessel.

-- *ALYESKA*: The Black Monark deployed the third connex of boom off the barge. The Black Monark with the Glacier Island was conducting spotlight detail.

2310 *ALYESKA*: The inside connex of boom was deployed by the Black Grayling off the portside of the barge.

2316 *ALYESKA*: Alyeska's Howitt and Exxon's Rassinier coordinated the location, estimated arrival, and logistics of transporting dispersants to Valdez.

2320 *ALYESKA*: The Sea View offloaded the last segment of boom from the top of the connex to other segments.

2330 *STATE/ADEC*: ADFG's Slater, now in Valdez, reported back to ADFG's Lance Transky, regional supervisor of the habitat division, in Anchorage, on the status of the oil spill and ADFG's field effort so far.

2338 *T/V EXXON VALDEZ BRIDGE ROUGH LOG, DECK LOG*: Second lightering hose connected.

[AOSC NOTE: This entry in the Bridge Rough Log is initialed "GC," apparently for Gregory Cousins, so it appears that Cousins did not leave the vessel until after this time.]

2359 *USCG POLREP THREE*: EXXON VALDEZ still aground Bligh Reef. Estimate of quantity released remained 250,000 barrels. Oil had apparently stopped escaping.

2400 *EXXON*: Divers found substantial damage over entire starboard side and center tanks. All tanks holed and set in. Initial report vessel aground in vicinity of tank Three center (3C).

XXPM *ADN*: Soon after the Exxon officials arrived on the EXXON VALDEZ, Captain Hazelwood and Third Mate Cousins were taken off the tanker. According to ADEC's LeBeau, both men were very depressed.

XXPM *CFMC*: Available boats of the CDFU had increased to 50. Their offer had still not been accepted by Alyeska or the USCG.

XXXX *NTSB-DICKENSON and JC*: On March 24, the National Transportation Safety Board dispatched three marine accident investigators and one human performance specialist to Valdez to commence the field phase of the investigation. James Kolstad, then acting chair of the NTSB, was on "Go Team" duty the night of the accident and, as the member on call, directed the board's initial response to the grounding.

XXPM *STATE/NTSB*: By the evening, the ADEC team was fully operational and working from an emergency response center in a portion of the courthouse in Valdez.

XXXX *ADN*: Alaska Sen. Frank Murkowski and his wife were in Bermuda where the senator was attending a seminar on South Africa when they got the news. Sen. Ted Stevens, vacationing in the Caribbean without a phone, could not be reached. Earlier in the day, Cong. Don Young heard of the spill when he flew from Washington, D.C., to Seattle to speak to a seafood processors' group. From there, the Congressman was to visit family in California. There was no information that he was changing his plans to come to Alaska.

2400 *ADES*: The number of flight arrivals or departures at the Valdez Airport totalled 444; the historical daily average for flights at this airport was 20 flights a day.

2400 *EXXON*: The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 176: 11 Exxon employees on-site, 18 Exxon employees in Anchorage enroute to Valdez, 61 contract personnel, 57 contract fishing personnel in Valdez, and an estimated 29 contract fishing personnel in Cordova. Fifteen tons of air cargo had arrived today including skimmers. Twenty-five vessels were deployed as were 15,000 boom feet, three skimmers, and an unknown number of aircraft.

2400 *ALYESKA/NTSB*: By the end of the first day, Alyeska had placed six to eight vessels of opportunity at the scene of the oil spill and mobilized numerous other vessels at the Alyeska Marine Terminal for use in transporting boom and other equipment to the spill site.  
In the initial 24 hours following the spill, Alyeska deployed 20,000 feet of boom.

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

SATURDAY, MARCH 25, 1989

## DAY TWO

### Approximate Alaska Local Time

0000 *T/V EXXON VALDEZ DECK LOG:* Watch relieved. Awaiting to start lightering to EXXON BATON ROUGE. Vessel inspected at regular intervals. Maintained bridge watch.

0000-0500 *T/V EXXON VALDEZ DECK LOG:* 2ndM LeCain was watch officer and ABs Kagan and Jones were on duty.

0000 *USCG VTC VALDEZ LOG:* T/V EXXON VALDEZ aground bearing 208° T, 13.2 nautical miles from Potato Point.

0015 *NRT/USCG:* Tug Jeffery Foss was on scene with 30,000-barrel tank barge to receive recovered oil.

0027 *USCG VTC VALDEZ LOG:* Tug Jeffery Foss on scene with barge.

0109 *NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE:* The estimate of oil lost was raised to 250,000 barrels.

0300 *USEPA:* USEPA's Kellogg began driving from Anchorage to Valdez.

0500 *T/V EXXON VALDEZ DECK LOG:* Watch relieved.

0500-1150 *T/V EXXON VALDEZ DECK LOG:* 3rdM Cousins was watch officer with ABs Jones and Peacock. During the watch, Jones and Peacock were relieved by ABs Claar and Radtke.

0600 *EXXON:* EXXON BATON ROUGE and EXXON VALDEZ were partially boomed in a U-shaped configuration, downwind of vessels, in direction of the flow of oil. EXXON BATON ROUGE supplied additional pipe, blanks, and reducers to EXXON VALDEZ for hose connections to increase cargo transfer rates.

0612 *EXXON:* The first dispersant spray plane, a SAT C-130, arrived Anchorage from Phoenix with spraying equipment. The plane had two crews aboard so that one was rested and ready to start spraying missions upon arrival in Valdez.  
20,075 gallons (365 drums) of dispersants were available within Alaska.

0615 *CFMC:* A C-130 dispersant application aircraft under the control of Exxon arrived at Anchorage.

-- *ADN:* A plane outfitted with equipment to spray large quantities of dispersant arrived in Anchorage from Florida.

0631 *USAF:* Valdez sunrise.

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0700 *SIMS*: Steiner and a group of Cordova fisherman were up all night talking about what they might do if things got really bad. Now, many of the fishermen were down at the docks gearing up their boats. Steiner, himself, was to fly shortly to Valdez.

0730 *ADES*: *ADES*'s Drury arrived at the *ADEC* office in Valdez and met with *ADEC*'s Commissioner Kelso and *SOSC* Lamoreaux. *ADEC* did not have current information from the oil-spill scene as their communications system was not yet set up for that.  
At this same time in Anchorage, *ADES*'s Wuerpel took off from Elmendorf AFB in an Alaska Air National Guard (AK ANG) C-12. The aircraft overflow PWS before landing at the Valdez Airport.

0736 *T/V EXXON VALDEZ DECK LOG*: Commenced lightering to *EXXON BATON ROUGE*. *USCG* notified.

-- *USCG VTC VALDEZ LOG*: Commenced off-loading *T/V EXXON VALDEZ* cargo to *EXXON BATON ROUGE*.

-- *NRT/USCG*: Oil transfer operations began, with cargo transferred to *EXXON BATON ROUGE*.

-- *NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE*: Lightering operations were commenced at a rate of 10-12,000 barrels per hour. No further loss of large amounts of cargo were expected from the *EXXON VALDEZ*.

-- *EXXON*: Cargo discharge to *EXXON BATON ROUGE* commenced via main cargo pumps.

0743 *T/V EXXON VALDEZ BRIDGE ROUGH LOG*: Lightering up to full rate.

0745 *NRT/USCG*: The *FOSC* reported that loss of additional oil had ceased.

0745 *USCG POLREP FOUR*: Estimated quantity released from the *EXXON VALDEZ* remained at 250,000 barrels.  
Cleanup crews with all available skimmers were operating on scene. Foss tankbarge was on scene to receive recovered oil.  
On-scene weather: Winds light and variable with partly cloudy skies and temperatures in the mid thirties.

0750 *NRT/USCG*: Commercial divers completed underwater hull survey showing holes in 11 tanks. *EXXON VALDEZ* had been grounded from the No. Two tank aft to the No. Four tank. The vessel's designer advised the Coast Guard that the ship was not floatable and that a major salvage operation would be required. Meanwhile, oil transfer to the *EXXON BATON ROUGE* continued at a rate of 10,000 to 12,000 gallons per hour. Water replaced cargo to maintain ballast.

-- *EXXON*: Divers completed initial underwater hull survey of *EXXON VALDEZ*. Their efforts were complicated by underwater currents and by movement of the vessel on the ledge. The initial survey confirmed very substantial underwater damage over about 50 percent of the vessel's bottom. The survey indicated the vessel was balanced on a rocky pinnacle at about its midpoint.

0824 *EXXON*: Oil observed leaking from *EXXON VALDEZ* starboard side. Pumps were immediately shut down when it appeared that the grounding had damaged the

DAY TWO (Saturday, March 25)

pipng system in the tanks. Decided to use portable pumps for discharge of undamaged tanks. Approximately 10,000 barrels of oil were transferred to EXXON BATON ROUGE before shutdown.

- 0827 *T/V EXXON VALDEZ DECK LOG:* Suspended lightering operations to further assess stability and damage to vessel. Bridge watch maintained.
- 0830 *NRT/USCG:* Alyeska pipeline representative advised that pipeline flow had been slowed to 768,000 barrels per day. At this rate, the Alyeska Marine Terminal had seven days of storage capacity.
- 0833 *NRT/USCG:* USCG Cutter Rush was ordered to put USCG personnel aboard T/V ORIENTAL CRANE and to proceed with all haste to EXXON VALDEZ site and establish a command and control platform. USCGC Sedge was ordered to PWS to assist the FOSC.
- 0845 *NRT/USCG:* Oil transfer operations were suspended as on-scene crews reevaluated the situation.
- 0900 *CFMC:* Exxon finally ordered the booming of the EXXON VALDEZ and the EXXON BATON ROUGE.
- *ADN:* According to AMT Superintendent O'Donnell, at this time Alyeska was finally ordered by Exxon to boom the EXXON VALDEZ.
- 0900 *ADES:* ADES's Drury picked up Wuerpel, his agency's emergency management specialist for communications, at the Valdez Airport and returned to ADEC. ADEC wanted assistance in getting the Alaska Division of Forestry communications repeater set up so they could communicate via UHF radio between Valdez and on-scene of the oil spill. Wuerpel was to work with the USCG and ADEC in setting this up.
- 0915 *USCG POLREP SIX:* Alyeska reported the sinking of a Sea Pack with 1500 feet of air-filled boom while it was being towed back by tug boat to AMT for repairs. The Sea Pack sunk one-half mile north of Busby light with all attached boom lost in 100 fathoms of water.
- 0930 *NRT/USCG:* Alice Berkner of IBRC arrived in Valdez to set up facilities for treating oiled animals.
- 0930 *USNOAA:* At a meeting, results of the divers' inspection of the vessel were made available. Of 16 total tanks, only the five on the port side were intact. A revised estimate of about 175,000 barrels released (7,350,000 gallons) was given.
- XXAM *ADN:* Exxon announced 175,000 barrels spilled.
- 0945-1110 *NRT/USCG:* On-Scene ARRT agency representatives held a meeting at USCG MSO, Valdez, with teleconference following at 1110. Dispersant trial application was planned utilizing C-130 cargo aircraft.  
Exxon Shipping Company assumed management of spill and financial responsibility.

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-- **NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE:** ARRT meeting was held at MSO, Valdez. Exxon Shipping Company assumed financial responsibility and oil spill cleanup coordination.

-- **CFMC:** At a meeting of the ARRT, Exxon announced that it might want to use dispersants on the leading edge of the spill near Naked Island, a Zone Three area.

0945 **USCG POLREP SIX:** Mechanical recovery equipment on scene and operating was as follows: five complete skimming systems, two 30,000 barrel barges to receive recovered oil, 15,000 feet of boom deployed. Contract boats tended and advanced skimmers.

Exxon had over 100 people on cleanup operations including Exxon, Alyeska, and contract personnel with another 200 people on standby.

Weather: Northeast winds to 15 knots, increasing to 25 knots tonight; gusts to 35 knots in Valdez Arm predicted tonight. Seas to three feet, building to five feet tomorrow night.

1000 **EXXON:** Four USCG PACAREA Strike Team personnel were aboard the EXXON VALDEZ with two submersible pumps; started receiving equipment for on-deck lightering.

1000 **ADES:** Drury checked in with the ADES Emergency Operations Center in Wasilla for an update on the status of helicopter and back-up aircraft.

[AOSC NOTE: What Drury learned was not indicated, but, according to ADES, during the day an Alaska Army National Guard (AK ARNG) CH-54, known as the "Skycrane", transported satellite dishes and other communications equipment for ALASCOM "up the mountain."]

1100 **NRT/USCG:** EXXON VALDEZ was surrounded by containment boom. USCGC Rush was on scene to assume air traffic control functions.

1110-1420 **NRT/USCG:** ARRT teleconference followed on-scene ARRT agency representatives' meeting.

-- **USCG-ARRT:** Primary ARRT members and agencies participating in the scheduled teleconference included USEPA-Lautenberger; USDOJ-Gates; USDOC- Becker; ADEC-Lynn Tomich (Kent); USDA-Paul; USCG MSO Valdez-CDR McCall, CDR Waldron; USCGD17-CAPT Haines, CDR Rome, LT Carey. Other attendees represented ADFG, USDOJ-BLM, and USDOC-NOAA and NWS.

CDR McCall reported that deflection boom was in place around the EXXON VALDEZ from stern to Bligh Reef Buoy and provided an update on the damage from the divers' survey. Some 700 barrels of product had been recovered. An Exxon naval architect concluded that the vessel was in non-floatable condition without substantial salvage effort.

McCall said that Exxon estimated the spill at approximately 175,000 barrels but that the FOSC would stay with the higher figure until convincing evidence was presented by Exxon.

McCall reported that the dispersant test on March 24 resulted in no observable dispersion of oil. The surface was virtually flat calm with no apparent mixing energy. Exxon was recommending another test using a C-130 which it said would have higher efficiency. Exxon was also concerned with whether *in-situ* burning would be allowed.

Protective/diversionary booming and the need for Exxon to make plans to protect the sensitive resources in the intertidal zone were listed among the primary concerns of the ARRT. Another was that the proposed *in-situ* burn test would detract from more important mechanical recovery and protective booming efforts. Approval was recommended only if the FOSC was satisfied the test burn could be done without degrading other efforts. Lastly, the ARRT had the same concern for the C-130 dispersant test, i.e., that it should not detract from the main effort and that it should not pose a threat to intertidal zone resources. The FOSC was in full agreement with the ARRT and indicated that he intended only to allow dispersant application to the leading edge of the slick in deep water.

By letter to the ARRT, ADEC expressed concern that Exxon and Alyeska were not responding as timely as promised and requested that the ARRT assess the ability of the responsible party to respond and take whatever measures it could to prevent further spill movement and resource damage.

The ARRT was informed that Rear Admiral (RADM) Edward Nelson, Jr., commander of USCGD17, and CDR Rome were enroute to Cordova via a USCG C-130 and then would be transported to Valdez by USCG helicopter. CDR Rome was to remain and assist CDR McCall as necessary. In other information, a seven-person FAA team was on scene to provide air traffic control.

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**USEPA:** Attendees at the ARRT teleconference included Hunt, Gates, Lautenberger, Johnson, Becker, Transky (ADFG), Roger Morris (USDOC-NMFS), Howard Metsker, and Gary Hufford.

CAPT Haines wanted to discuss activities scheduled through March 28, the FOSC's report, and the press conference at 1200 hours.

Equipment not yet on site included 5,000 feet of boom, 3,000 feet of boom from CIRO, Walosep skimming from Clean Bays, three Vikoma Sea Skimmers, an SDI skimmer from CIRO, a 30,000 gallon oil barge from Homer, and 40,000 gallons of Corexit 9527 (8,000 55-gallon drums).

A small boat took water samples before and after the dispersant application. The water was virtually flat calm. There was no surface mixing action. The sampling boat itself provided agitation. For the lack of wind and weather, mechanical recovery was currently determined to be the best cleanup method.

The oil was one-quarter inch thick. Agencies did not want the dispersed oil to get into Zone Three. Future strategy was to include a fire test and another dispersant drop. The dispersant drop would be from a C-130 with aerial packs which would provide a larger droplet size than the bucket droplet.

The USCGC Rush was on scene. A 3,000-foot and six-mile FAA control zone was established. Oil existed in each of the recovery tanks of the EXXON VALDEZ. The ship was not listing; it was moving slightly with the tides. CAPT Haines wanted to know the oil recovery rate; there was a big discrepancy in 175,000 vs. 250,000-260,000 (barrels lost).

Kent of ADEC asked why they were pumping tanks that were intact and not those that were leaking and was told by CDR Rome that the naval architect developed the pumping plan. Becker had a question about booming off the stern of the tanker.

The Alyeska response barge was still out on the water. The ARRT agreed to meet at 1330 on March 26 for teleconferencing at Gates' office. The meeting was adjourned at 1420.

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**ADEC:** ADEC expressed concern over the rate of response to the cleanup in a letter to Al Ewing, USEPA, and CAPT Haines, USCG, the co-chairs of the ARRT. ADEC indicated it had not observed adequate containment of the spill and expressed concern

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that an opportunity was being lost while weather conditions remained conducive for mechanical cleanup of the oil.

- 1115 **USCG POLREP SIX:** USCG, ADEC, and Exxon personnel conferred concerning State of Alaska start-up of effort to protect herring roe sensitive areas on the north end of Bligh Island. State had contracted four seine boats and crews to deploy 4,000 feet of boom and to actively manage recovery and protection efforts.
- 1145 **NRT/USCG:** USCG PACAREA commander requested AIREYE surveillance from the Atlantic Area Commander.  
*[AOSC NOTE: AIREYE was an aerial surveillance, information gathering, and recording system installed on certain USCG aircraft. Also known as SLAR (Side-Looking Angle Radar), this state-of-the-art system employed multiple information inputs (visual-photographic, infrared radar) to monitor and track surface objects. AIREYE usually was operated on marine safety and environmental monitoring missions and also had law enforcement and military applications.]*
- 1150 **T/V EXXON VALDEZ DECK LOG:** Watch relieved.
- 1150-XXXX **T/V EXXON VALDEZ DECK LOG:** 2ndM LeCain was on duty as watch officer over ABs Kagan and Jones.  
*[AOSC NOTE: The time relieved was obliterated from the copy of the page used for this chronology.]*
- XXAM **USNOAA:** Dave Kennedy of USNOAA's Hazardous Materials Response Branch, Seattle, met with Exxon's senior scientist Al Maki. They discussed NOAA's mapping efforts. Maki was to seek funding from Exxon for this.  
NOAA had established a command post. John Whitney was NOAA's Scientific Support Coordinator (SSC) on scene.  
Whitney had spent the morning with CDR McCall planning for a dispersant test using a C-130 ADDSPAC. A test burn with fireproof burn had also been discussed.
- XXXX **USDOJ-OEPR:** USDOJ's Bergmann accepted an offer to operate from the USCG MSO and moved in with staff support and equipment from USBLM. In this location, she could be called upon to answer inquiries regarding the effects of the spill on PWS wildlife.
- 1200 **USCG-ARRT:** Exxon officially relieved Alyeska Pipeline Service Company of cleanup responsibility.
- 1200 **NRT/USCG:** Second hull survey was conducted with video cameras by dive team.
- 1200 **USCG POLREP FIVE:** News conference with FOSC, Alyeska representatives, and Exxon officials at the Valdez Civic Center. Interest was extremely high by media, fishermen's groups, and public. Over 125 persons attended.
- 1200 **ADN:** Official estimates placed the spill at 260,000 barrels.
- XXPM **EXXON:** EXXON VALDEZ engineers constructed manifold connects for PACAREA Strike Team hoses using 16-inch blanks and six-inch pipe from ship stores.

(Piping manifolds were constructed by the ship's crew to increase piping rates.)  
Strike Team began setting up equipment.

The decision was made to discharge damaged tanks first: least impact upon vessel trim/stress, damaged tanks presented greatest potential for further pollution, and less vertical lift was required for complete discharge with small submersible pumps.

Exxon Command Center initiated supply of submersible pumps to vessel -- one from Anchorage, one from Seattle, Wash., three from Detroit, Mich.

1230 *USCG POLREP FIVE:* Although up to 11 cargo tanks were holed on the EXXON VALDEZ, some crude oil remained in each of the tanks with a sea water cushion below the oil. Based on tank gauging, estimate of quantity of oil released was 242,000 barrels (10,164,000 gallons).

On-scene weather: Winds light and variable with partly cloudy skies and temperatures in the mid thirties.

1230 *NRT/USCG:* Some oil released as transfer operations began again. Oil transfer had been delayed due to piping damage.

1230-1440 *USNOAA:* A USNOAA Bell 212 helicopter on scene conducted an overflight and found that the major oil slick extended southwest from the tanker approximately 10 miles and was from three to seven miles wide. Various reported sightings of oil elsewhere were checked out and could not be confirmed.

XXPM *EXXON:* A USNOAA surveillance flight in the early afternoon verified that the leading edge of the oil spill had moved into Zone One where the FOSC could authorize the use of dispersants without consultation with the USEPA or ADEC.

XXPM *ADN:* Exxon Shipping Company President Jarossi said that the accident investigation was focused on the actions of Hazelwood, Cousins, and Kagan. He ruled out mechanical problems.

1305 *T/V EXXON VALDEZ DECK LOG:* USCG Hale was assisting with USCG response team.

1315 *EXXON:* Jarossi reviewed with Lindblom, dispersant consultant to the company, plans to use dispersants in Zone One. They discussed CDR McCall's requirement for testing the effectiveness of dispersants in Zone One and the Commander's need to review results before Exxon could use dispersants.

Exxon requested CDR McCall view a dispersant test using the C-130 aircraft spraying dispersants in Zone One. A coordination meeting was planned at Valdez airport.

1330 *NRT/USCG:* FAA in Anchorage was mobilizing a seven-person air traffic control team to set up a temporary control tower at Valdez Airport.

XXXX *SIMS:* Steiner had witnessed enough in Valdez to know that the fishermen needed to do something. In the Westmark Hotel, he had seen the chaos of Exxon's operation as well as that of the federal scientists. The Exxon headquarters on the hotel's second floor bustled with company personnel setting up computers, consulting charts, thumbing through manuals, and keeping people out. Downstairs, federal scientists, mainly from NOAA, were doing pretty much the same thing. The AMT on the other side of the bay wouldn't answer his telephone inquiries.

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Steiner then went to the ADEC office in the state building, where its staff had quadrupled in a day, and talked with Larry Dietrick, the department's director of environmental quality, who was there from Juneau. Steiner was dismayed to be told that ADEC was doing everything it could, but had nothing to clean up the oil with.

Steiner telephoned Grimes in Cordova and told him that he had better come to Valdez with Lamb and Guard.

- 1425 *EXXON*: The C-130 was loaded in Anchorage with dispersants.
- 1437 *EXXON*: A ConAir DC-6, a second dispersant spray plane, arrived Anchorage and began the process of clearing U.S. customs.
- 1500 *ADES*: A UH-60 (Blackhawk) helicopter was on the ground at Valdez Airport because the infra-red equipment couldn't be configured to use power from the helicopter. The pilot decided that since it wasn't needed by ADEC, it would support the CH-54 by flying ANG Pathfinders (cargo riggers and slingers).
- 1508 *EXXON*: The SAT C-130 spray plane departed Anchorage for Valdez with dispersants. The plane was light loaded to permit subsequent takeoff from Valdez Airport for a dispersant test.
- 1515 *T/V EXXON VALDEZ DECK LOG*: USCG Hale was assisting with equipment for response team.
- 1520 *ADES*: Drury requested that the ADES EOC work on the problem of mismatched power between the UH-60 and the infra-red equipment. He also briefed Sey on an apparent lack of coordination between ADEC and the ANG.
- 1525 *T/V EXXON VALDEZ DECK LOG*: USCG Hale away.
- 1530 *T/V EXXON VALDEZ DECK LOG*: Two Exxon personnel arrived. Bridge watch maintained.
- 1551 *EXXON*: The SAT C-130 arrived Valdez from Anchorage. Iarossi, Lindblom, Bruce Emery, a dispersant consultant with ConAir, and CDR McCall held a coordination meeting with aircraft and spotter crews.
- 1600 *STATE/NTSB*: A trial application of dispersants performed at this time was deemed to be inconclusive, it not being apparent that the dispersants had been applied to the slick.
- 1630 *ADES*: Larry Dietrick, ADEC's state director of environmental quality in Juneau, briefed Drury and Wuerpel on ADEC's operational plans and controls and areas in which ADES could assist. Dietrick also advised that Assistant Attorney General (AAG) Michelle Brown from the Alaska Attorney General's (AK AG's) office was concerned about declaring a state disaster and was going to recommend it to the Governor's office.
- 1635 *EXXON*: The SAT C-130 departed Valdez for the dispersant spray mission.
- 1658 *EXXON*: Iarossi, Lindblom, Emery, and CDR McCall departed in a helicopter to witness the dispersant test run. Their departure was delayed while CDR McCall obtained a video camera from the MSO.

DAY TWO (Saturday, March 25)

-- *EXXON:* The C-130 conducted a dispersant test, multiple passes using approximately 3,750 gallons (68 drums) of dispersants in Zone One south/southwest of the Exxon Valdez grounding site. CDR McCall, Iarossi, Lindblom, and Emery watched from the helicopter. McCall used the video camera.

Iarossi, Lindblom, and Emery concluded that the test was successful. They noted much more light reflection off the surface and higher surface agitation, indicating dispersants were effectively interacting with the spilled oil.

CDR McCall stated that he was unable to get good video due to poor light. McCall stated he needed to have good video to show dispersant effectiveness to others. He stated he needed to be convinced of effectiveness and able to demonstrate it to others before he could approve the use of dispersants on the spill. CDR McCall stated that further dispersant testing on Sunday would be required.

-- *PWSCA/ADEC:* The dispersant test was conducted using a fixed-wing airplane this time. A total of 3,500 gallons of dispersants was used. The test was conducted in a Zone One, preapproval area, and was deemed inconclusive by the USCG. Calm conditions were again identified as hampering effectiveness.

-- *CFMC:* The FOSC noted very little dispersion action as a result of the afternoon's dispersion test but light conditions were poor for his evaluation. A USNOAA observer stated that he saw a change in the surface texture of the slick. A USCG Strike Team observer said he thought the test was over water, not oil, as did the ADEC observer.

XXXX *HORTON:* USNOAA scientists John Robinson and David Kennedy, the agency's principal oil-spill experts in Valdez, were to say that what dispersants were available should have been used without hesitation nearly from the start, although neither man was convinced that the dispersants would have helped much, given the calm sea state. Their point was that spraying could not have hurt and everyone was out of options. Test results, they said, are nearly always inconclusive -- you usually can't tell for certain from the air how well dispersants are working.

1700 *CFMC:* A test burn did not take place at this time as scheduled.

1700 *ADES:* ADES's Drury discussed the implications of an Alaska Disaster Act declaration with the AAG Brown. It was Drury's feeling that it was not required at this time as all agencies were responding and a declaration could send a message to Exxon that the state would foot the bill. According to Drury, Brown agreed that a declaration at this time was not necessary. Following this, Drury briefed Sey in Anchorage on the discussion.

XXXX *EXXON:* Exxon representatives met with fishermen, the USCG, ADEC, and representatives of other Alaska state agencies to determine those areas which should be defensively boomed. Galena Bay and other locations along the eastern side of the Valdez Arm were targeted. Booms were loaded on fishing boats late in the day.

1730 *ADES:* Drury and Wuerpel met with Lester Leatherberry who had been assigned by ADEC as its logistics officer and, in effect, its EOC chief. The three worked on establishing an ADEC control and tracking system.

DAY TWO (Saturday, March 25)



1745-2144 *EXXON*: The SAT C-130 was directed to load dispersants for Sunday morning tests. It loaded approximately 5,100 gallons (93 drums) of dispersants in Kenai and returned to Anchorage.

1800 *ADES*: Drury and Wuerpel departed to attend an Exxon-sponsored press conference.

1800 *EXXON*: During a Valdez Press Conference, USCG spokesman LT Wieliczkievicz, stated "Exxon had been granted permission by the state and federal agencies to test effectiveness of chemical dispersants on the oil and in-place burning methods; however, Exxon will need additional Coast Guard and state approval before further use of either method."

1900 *NRT/USCG*: RADM Nelson, commander USCGD17, arrived on scene.  
*[AOSC NOTE: According to the text of the NRT Report to the President on the EXXON VALDEZ oil spill, RADM Nelson was dispatched to the scene to alleviate pressure on the FOSC. The presence of RADM Nelson, it said, might have led to initial confusion as to who was in charge, because he was FOSC McCall's supervisor. In fact, the NRT Report said, no transfer of authority took place, and the FOSC retained his role under the Clean Water Act.]*

1900 *ADES*: Due to repeated delays in the Exxon press conference, Drury returned to the ADEC EOC leaving Wuerpel to stay on and cover the press conference.

1912 *USAF*: Valdez sunset.

1914 *EXXON*: The ConAir DC-6 sprayed 500 gallons (nine drums) of dispersants. The spraying was not ordered by Exxon. ConAir subsequently notified CDR McCall of the spraying mission.

1930 *NRT/USCG*: (Mechanical) cleanup crews reported 1,200 barrels of oil recovered.

1950 *EXXON*: Rassinier, Exxon's environmental conservation coordinator, and John Clough, Alaska legal counsel for Exxon, met with AAG Brown, SOSC Lamoreaux and ADEC's Dietrick, regarding spill cleanup plans and activities. Rassinier outlined cleanup, lightering activities, and equipment that was en route. He also gave a report of the "successful" dispersant test that afternoon. Dietrick stressed that the state had a strong preference for "aggressive mechanical efforts," and that "dispersants should only be used as a last resort."

XXPM *USNOAA*: A Resources Working Group meeting included representatives from USNMFS, USFWS, ADEC, ADFG, and CDFU. Objectives were identified as identifying priority areas, coordinating agencies to develop monitoring plan, and looking at the dispersant issue. Knowledge on animal resources was shared. Agency priorities and working groups were assigned: beach surveys - ADEC, bird censusing - USFWS and ADEC, marine mammals - USNMFS and USFWS, benthic sampling - USNMFS, fisheries - ADFG, and water column - (to be indicated). Everyone agreed to turn information over to USNOAA for data management. Information was be turned in by 2000 nightly.  
The group met with Exxon scientist Maki and recommended highest priority for protection be assigned to Galena Bay, Ellamar Village, and Naked Island.

DAY TWO (Saturday, March 25)

XXPM *USNOAA*: The evening Science Review meeting was attended by USNOAA, USNMFS, USFWS, ADFG, ADEC, and ITOFF (???). John Whitney discussed what NOAA's HAZMAT (Hazardous Materials Branch) could provide at spill incidents -- i.e, daily maps showing oil position, impact resource summary maps, sample tracking, daily weather reports and tidal information, and trajectory modeling.

NOAA agreed to develop a common map that everyone could use to establish consistency. NOAA would also try to track all samples being taken.

Bergmann (USDOI-OEPR) discussed the bird rehab center. No decision had yet been made on whether to clean birds and sea otters. Exxon had brought the IBRC bird rescue team to Valdez and DOI recommended Exxon hire a sea otter expert.

ADEC was to send a boat out the next day to do some ground truthing and try to resolve some of the discrepancies coming in.

Results were not known from the dispersant test this afternoon.

NOAA's command post would be a central location for information consolidation. NOAA's personnel on site now numbered 10.

The possibility of working closer with Exxon scientific people was discussed; efforts were to be made to establish this relationship.

The plan was to hold meetings of this group every evening.

2000 *NRT/USCG*: Dispersant trial application was conducted by C-130 with inconclusive results. Another test was to be conducted on March 26 under optimal light conditions.  
*[AOSC NOTE: USCG POLREP Five actually stated that the results indicated cautious optimism with second test to be conducted A.M. 26 March under optimum light conditions.]*

-- *NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE*: Another dispersant test was conducted. The FOSC described the results as "cautiously optimistic."

2010 *NRT/USCG*: EXXON VALDEZ had transferred 11,000 barrels of oil to EXXON BATON ROUGE before suspending oil transfer operations. Second test of ship's cargo transfer system would be conducted on the morning of March 26.

-- *NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE*: Lightering operations were stopped due to suspected damage to the EXXON VALDEZ's stripping system.

2010 *USCG POLREP FIVE*: Underwater video survey was completed and being analyzed by salvage personnel on board the EXXON VALDEZ.

2015 *NRT/USCG*: Exxon completed initial mapping of the area to determine the extent of the oil spread and impact.  
A bird rescue operation was instituted by Exxon.

-- *NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE*: Exxon reported first oil mapping of area completed and a bird rescue operation instituted.

2015 *USCG POLREP FIVE*: Beach cleanup was to begin tomorrow on Reef Island and a survey on Naked Island. Fishermen's groups contributed to effort to define sensitive areas. These areas were to be protected in priority level as defined by interested parties and contingency plans. Contract vessels were loading boom to deploy in these areas. Galena Bay was defined as a primary area.

DAY TWO (Saturday, March 25)

Three USCG MSO personnel were still onboard EXXON VALDEZ. USCG vessel 32323 was on scene monitoring safety zone and handling personnel transits.

Based on Exxon's request for U.S. Navy salvage equipment, the FOSC requested the project ceiling increased to \$1,025,000.

- 2039 *NAVSEA(SUPSALV)*: The USCG had officially requested U.S. Navy spill response equipment and assistance by telephone conversation with the office of the Supervisor of Salvage (SUPSALV) of the Naval Sea Systems Command (NAVSEA), Washington, D.C., in the afternoon. At the time indicated here, a message request was transmitted in follow-up. This request was for two skimming systems which SUPSALV was to send from the Emergency Ship Salvage Material (ESSM) base, Stockton, Calif., to Elmendorf AFB, Alaska.
- 2045 *NRT/USCG*: Burn test was conducted near Goose Island with approximately 100 square feet of tar left as a residue. An estimated 15,000 gallons of oil were consumed.
- *EXXON*: Successful burn test of an estimated 15,000 gallons of crude oil was conducted near Goose Island.
- *ALYESKA-POLASEK*: A test burn conducted near Goose Island successfully disposed of approximately 15,000 gallons of oil. (This proved to be the only time that Alyeska was permitted to employ *in-situ* burning to combat the spill.)
- *CFMC*: The test burn originally scheduled for 1700 was conducted. The test was conducted by an Anchorage-based contractor familiar with the process with equipment brought in from Anchorage. About 15,000 gallons of oil was burned.
- XXXX *SIMS*: Smoke from the test burn inflicted severe nausea and headaches on the native village of Tatitlek.
- 2130 *EXXON*: Exxon's Iarossi met with Alaska Lt. Gov. Steven McAlpine and aides, USCG RADM Nelson, CDR McCall, and USNOAA's Kennedy. One of the state's concerns was the impact of dispersants on the water column.  
Exxon scientist Maki joined the meeting and gave the group a brief oral summary of some of the aquatic toxicology data for oil/dispersant combinations. Maki underscored that the relative risks to aquatic life from the use of dispersants was minimal.
- XXXX *CFMC*: At an evening meeting, an Exxon official, citing the expense of dispersants, described them as only an ecological alternative, not to be used unless necessary to protect key ecological resources.
- 2155 *EXXON*: Eighty-eight 55-gallon drums of dispersants were received from Houston.
- 2200 *ADES*: ADES's Drury attended ADEC's "how goes it and schedule for tomorrow" briefing. This meeting was teleconferenced with ADEC's Juneau office. ADEC Commissioner Kelso had returned from a meeting with the Valdez city manager and mayor where they discussed the option of the city declaring a disaster in order to start the process for the state declaring a disaster and ultimately requesting a Presidential declaration. Drury again recommended that a disaster declaration not be made at this time based on the fact that it would not increase the response capability and that the city and its residents were not endangered. Drury requested that he attend Kelso's meeting on Monday with the Valdez officials and AAG Brown.

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2243 *EXXON*: The EXXON VALDEZ began discharging oil via two USCG submersible pumps -- about 2,000 barrels per hour.

2247 *T/V EXXON VALDEZ DECK LOG*: Resumed lightering to EXXON BATON ROUGE via USCG portable pumping.

2314 *USCG VTC VALDEZ LOG*: Transfer operations between EXXON BATON ROUGE and EXXON VALDEZ had begun.

-- *NTSB FACTUAL REPORT-INITIAL RESPONSE PHASE*: Two USCG "Adapts" pumps were being used by Strike Team members for over-the-tank-top lightering operations from the EXXON VALDEZ to the EXXON BATON ROUGE. The USCG FOSC continued to closely monitor the salvage and cleanup efforts of the Exxon Shipping Company.

-- *EXXON*: Lightering operations were restarted Saturday evening using portable pumps. The initial two pumps were supplied by the USCG.

2323 *USCG POLREP SIX*: Three USCG MSO personnel still remained onboard the EXXON VALDEZ. USCG vessel 32323 was still monitoring the safety zone and handling personnel transits. USCGC Sedge was loading PACAREA barrier skimmer and related equipment for transport and deployment. USCGC Rush was on scene coordinating air traffic over restricted air zone.

XXXX *USCG POLREP THIRTY-FIVE*: Five skimmer systems were operating and the cumulative total recovered was 1,200 barrels of oil.

XXXX *ADEC*: Visual observations from aircraft indicated the slick extended 16.5 miles southwest of Bligh Reef.

XXXX *ADES*: The number of flights into or out of the Valdez airport increased to 633 for the day. The AK ARNG provided a CH-54 and the AK ANG provided a C-12 for three missions.

2400 *EXXON*: About 12,000 barrels were discharged to EXXON BATON ROUGE.  
The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 250: 30 Exxon employees on-site, 148 contract personnel, 48 contract fishing personnel in Valdez, and an estimated 24 contract fishing personnel in Cordova.  
Forty-seven tons of air cargo arrived today including ADDSPACS, dispersants, and portable pumps. Fifty-six vessels were deployed as were 26,000 boom feet, six skimmers, and an unknown number of aircraft.

DAY TWO (*Saturday, March 25*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

SUNDAY, MARCH 26, 1989 (EASTER SUNDAY)

## DAY THREE

### Approximate Alaska Local Time

0628            *USAF: Valdez sunrise.*

1915            *USAF: Valdez sunset.*

XXXX            *ADFG: At least eight tankers were anchored off Knowles Head to take on oil at the Valdez pipeline terminal.*

XXXX            *EXXON: Fishing boats, which had been loaded with boom late in the day on Saturday, commenced booming of targeted locations along the eastern side of the Valdez Arm.*

0530            *NRT/USCG: USCG Strike Team members joined responders on EXXON VALDEZ. Earlier they had staged an Open Water Oil Containment and Recovery System (OWOCRS) for loading onboard USCGC Sedge.*

*[AOSC NOTE: According to the NRT Report, OWOCRS is a rapidly deployed, very rigid, high seas containment boom that also can be used as a skimmer. OWOCRS moves in a "U" configuration, towed by vessels at each end. A pump float subsystem, attached to the bend of the "U" pumps oil collected by skimming weirs inside the "U" at a rate of 825 gallons per minute into a suitable container, usually a tank barge or a towed bladder. OWOCRS can also be made stationary by means of a mooring system.*

*It appears to the compiler of this chronology that the terms "OWOCRS" and "USCG barrier skimmer" or "USCG skimming barrier" may be used inter-changeably.]*

0600            *EXXON: Four pumps arrived in Anchorage and Exxon Command Center arranged transportation to Valdez.*

XXAM            *EXXON: Two more six-inch cargo lightering hoses were attached.*

0643            *NRT/USCG: USCG reported shipment of one MARCO skimmer from Elmendorf Air Force Base (AFB), Alaska.*

*Twenty people were transported to Bligh Island to survey beach cleanup and bird and wildlife impact. Seventy-five oiled birds reported sighted by USDOI personnel. Birds included white-wing scoters and old-squaw and goldeneye ducks. Most oiled birds were sighted on west side of Bligh Island. Two oiled sea otters were also sighted. USDOI estimated that 3,000 seabirds and several hundred sea otters lived in area of Knowles Head to Galena Bay.*

0745            *CFMC: Exxon, ADEC, the USCG, and others viewed a videotape of the burn test.*

XXXX            *ADEC: A combined press release of ADEC and ADFG stated that these departments still maintained that mechanical cleanup methods were the best line of defense. While burning and limited application of water-soluble dispersants may be considered for some areas, the state does not support wholesale use of these measures as alternatives to mechanical cleanup, the release declared.*

DAY THREE (Sunday, March 26)

0800 *ADES: ADES's Drury discussed with LTC Masker of the Adjutant General's Office the need to instruct a helicopter pilot on scene in Valdez that he was able to respond to ADEC mission requests without prior permission from ADES. It was determined that a contact from ADEC would be identified with approval to assign missions.*

0825 *STATE/NTSB: Exxon's shipping group coordinator Deppe, now aboard the EXXON VALDEZ, ordered the lightering operation to the BATON ROUGE halted after ADEC's LeBeau observed oil bubbling up from the rear starboard tanks.*

0830 *ADES: ADEC requested that the phones installed yesterday be relocated. Drury made arrangements for someone from the telephone company to come that morning.*

0845 *ADES: ADEC requested the assistance of ADES in getting quality air photos of the spill area twice a day for plotting the spill. A request to locate a commercial firm that ADEC could contract with was passed onto staff at the ADES Wasilla headquarters.*

0850 *ADES: ADES's Wuerpel was working with ADMVA's telecommunications division and the USCG to establish VHF communications for ADEC between Valdez and the oil impact area.*

0900 *ADES: John Hensley of ADES headquarters called Drury back and advised that he had access to two U2's which could provide aerial photography of the spill area. Drury requested that the photos be taken and copies provided to ADEC.*

0900 *NRT/USCG: Exxon had assigned over 100 people including Exxon, Alyeska, and contract personnel to clean-up operations. Another 200 people were on standby.  
[AOSC NOTE: CFMC observed that Exxon had "only" 100 people on cleanup. Another 200 were on standby without enough equipment, transportation, and direction to put them to work.]*

0925 *EXXON: The ConAir DC-6 left Anchorage for Valdez.*

0930 *ADES: Drury received a request from ADEC for C-130 air support to haul absorbent material owned by a firm under contract to ADEC from Anchorage to Valdez. This request was passed onto Hensley to utilize MarkAir or, if MarkAir was not available, aircraft from Kulis AK ANG Base in Anchorage.*

0940 *ADES: ADES headquarters called Drury back with a number for ADEC to call to make arrangements for spill overflight and photography.*

0954 *EXXON: 149 55-gallon drums of dispersants were received from Houston.*

1045 *NRT/USCG: Three USCG personnel arrived from MSO, Anchorage, to assist.*

1100 *STATE/NTSB: A dispersant application with the DC-6 aircraft was conducted and deemed unsatisfactory.*

1100 *ADES: Drury received notice from Hensley that a C-130 AK ANG aircraft was available to move the absorbent to Valdez. After obtaining the information from Hensley, Drury provided ADEC with the name of the project officer at Kulis so that ADEC could make its own arrangements for the airlift.*

DAY THREE (Sunday, March 26)



- 1100 *USCG-ARRT/EXXON*: Exxon issued a press release on the onsite oil spill response situation which, apparently, was summarized by the USCG on the USCG-ARRT E-Mail. Lightering of the remaining one million barrels of cargo on board the EXXON VALDEZ had begun last night and was estimated to be complete in three days, as plenty of lightering vessels were available.
- Cleanup of oil on water was relying primarily on booms and skimmers. Dispersant tests were being conducted. Five skimmers and about three miles of booms were deployed to capture oil and protect the most important areas. Three of these skimmers were Alyeska's and two had been brought in from Clean Bay in San Francisco. Five more skimmers were to begin operating that day, one from Clean Bay and four from OSR, Ltd., in England. Another five miles of boom were also being brought in. Exxon said it had employed two 30,000 barrel barges to receive oil from skimmers and an 80,000 ton vessel to receive oil from barges.
- Exxon said the oil slick was about two miles by six miles. Oil recovered to date was estimated at 1,050 barrels. Onshore cleanup teams were ready and working although not much oil had hit the beaches or rocks. Exxon had over 100 people on cleanup and another 200 people on standby. Seventeen contract boats were at the spill site, another 11 were at the Valdez Small Boat Harbor while the whereabouts of three contract boats was unknown.
- 1115 *NRT/USCG*: USCG personnel and members from ADEC and Exxon conferred on state efforts for protecting sensitive areas on the north side of Bligh Island.
- 1123-1510 *NRT/USCG*: USCGC Cutter Sedge arrived on scene north of Bligh Reef. The Sedge dispatched a small boat to recheck proper positioning of navigational equipment within PWS and was maintaining navigation safety levels.
- 1127 *EXXON*: The ConAir DC-6 left Valdez and conducted a dispersant spray mission using 2,500 gallons (45 drums) of dispersants. The spray equipment limited the effectiveness of the distribution of dispersants.
- [AOSC NOTE: CFMC reported a dispersant test at 1020 using a C-130 aircraft and an afternoon test using a DC-6. Given the information AOSC obtained from Exxon and other sources, it appears that CFMC switched the airplanes used in the tests.]
- 1130 *PWSCA/ADEC*: Calm weather on Friday, Saturday, and today so far had prevented sufficient energy for adequate dispersant mixing. Due to the calm weather, Exxon's Lindblom and CDR McCall were in agreement that the results so far were indeterminate. Another dispersant test with the DC-6 now occurred. Exxon's Lindblom was not satisfied and requested another test with the C-130.
- 1130 *ADES*: Drury received a request from ADEC for airlift of oil spill curtain from Juneau and Sitka to Valdez. This request was passed onto Hensley who was to find out if the C-130 could drop its cargo in Valdez, then go to Juneau and Sitka and pick up the load, and return to Valdez.
- 1140 *ADES*: Drury received a request from ADEC for airlift of absorbent material from Seattle to Valdez. He called Hensley and asked him to investigate the possibility of getting a sister state NG unit to fly in that payload.
- XXAM *USNOAA*: Five skimmers were on site and operating. Skimmed oil was being put into a tank barge.

DAY THREE (Sunday, March 26)

The State of Alaska had hired four seine fishing boats to provide additional booming to the sensitive herring and roe habitat around Bligh Island.

1200 *EXXON*: One pump was sent to the EXXON VALDEZ via boat.

1230 *EXXON*: Three pumps arrived in Valdez. Diesel fuel was sent to the EXXON VALDEZ for the pumps.

XXPM *ADES*: Alaska Governor Cowper, during telephone conversations with Sey who was at ADES's EOC in Wasilla, discussed the mechanism for requesting federal disaster assistance under the Stafford Disaster and Emergency Assistance Act. During the afternoon, Sey and his staff drafted a State Declaration of Disaster Emergency and a letter to the President through the Federal Emergency Management Agency (FEMA) requesting federal disaster assistance and the appointment of a federal coordinator to provide technical and advisory assistance to the federal, state, and local governments.

At one point, Sey telephoned Dick Buck of FEMA at his home in Seattle and discussed the situation under the federal Act which had just been revised. In that, or a subsequent conversation with Buck, Sey learned that the FEMA representative on the Alaska ARRT, Bill Brown, was keeping a commitment to leave that day for a week-long training program on the East Coast and was not available to come to Alaska.

1330 *ADES*: ADEC Commissioner Kelso handed Drury a press release that he had received from the Mayor of Valdez requesting that the governor ask for a federal disaster declaration. Drury "FAXed" this to Sey and then telephoned Sey about it.

1330 *ADEC*: The ARRT held a teleconference. To date 2,000 barrels of crude had been collected from the spill.

-- *CFMC*: The ARRT heard that the observers found the morning dispersant test inconclusive. Some optimism was expressed by the USEPA representative about using burning to control the leading edge of the slick. Most people at the meeting agreed with this.

-- *USNOAA*: ARRT topics included the status of booming and equipment, lightering from the EXXON VALDEZ, the burn test, and impacts on wildlife. The long-term weather forecast was given as winds switching from the southwest and snow as of Wednesday morning. The Port of Valdez had been closed since the incident on March 24 and by Thursday (Day Seven) the oil storage capacity at Valdez would be full. The FOSC requested ideas on how to get tankers through the spill without contaminating Valdez or spreading the slick further south.

-- *USCG-ARRT*: ARRT agencies and primary members participating in the teleconference were USEPA-Kellogg; USDOJ-Gates; USDOC-Becker; ADEC-Kent; USDA-Paul; USCG MSO Valdez-RADM Nelson, CDR McCall, and CDR Rome; USCGD17-LCDR Tiernan, CAPT Haines, and LT Carey. Other attendees represented Exxon, ADFG, USDOJ-BLM, and USDOC-NOAA, NMFS, and NWS.

The EXXON VALDEZ was now boomed to collect additional discharges. It was unknown if skimming operations were being conducted within the boom; if not, the FOSC was to have Exxon initiate. Exxon had 20 personnel performing beach cleanup and sorbent booming at Bligh Island and the same at Naked Island. Exxon had five large skimming systems working and 12 boats tending boom. ADEC was providing two seiners, skiffs and sorbent boom to protect herring roe areas near the spill sight. One U.S. Navy skimmer had been requested.

DAY THREE (Sunday, March 26)

The primary concerns of the ARRT were the resources at risk, dispersant application, *in-situ* burning, oily waste disposal, use of National Forest Lands for staging beach cleanup, and public affairs. With respect to dispersant use, based on the tests which had taken place, the FOSC and ADEC observed no direct effect on black oil and believed only massive applications of dispersant(s) would work on the existing quantity of oil. The FOSC recommended another test of C-130 application with different spray pattern and the ARRT voiced no objection provided the test was made in a leading-edge Zone One area.

To perform the *in-situ* burning, oil was trapped in the apex of moving fire-retardant boom and ignited with one plastic bag of gel. Exxon estimated that 15,000 gallons of crude oil were burned in a 55 minute test burn and estimated the burning efficiency at 98 percent. The FOSC said more *in-situ* burning would be allowed where fingers of slick could be located and boomed. The USNWS was of the opinion that ventilation would be satisfactory for all proposed burning. ADEC would monitor future burns closely.

Regarding the oily waste disposal, the FOSC indicated he did not think Exxon had addressed this except for collection of recovered crude. ADEC recommended this matter be brought to the attention of Exxon.

The USFS ranger at Cordova was identified as the point of contact for beach cleanup activities above the high-water mark and staging of equipment on National Forest Lands. Lastly, it was the consensus of the ARRT agencies that public affairs coordination and cooperation was working well under very trying circumstances.

USEPA: The ARRT teleconference brought together participants who gathered at the USCG offices in Juneau and Valdez and the USDOJ office in Anchorage. USEPA's Johnson attended from Anchorage and Lautenberger and Kellogg attended from Valdez. Others patched into the meeting included Becker, Transky, Hunt, Metsker, Hufford, Gates, Bruce Erickson, and Mike Menke of USDOJ-BLM.

The meeting started with the FOSC operations report. USNOAA was tracking the oil with "Polar Orbiters" and "Landsat" instrumentation. The results of dispersant and burn tests were discussed and CDR McCall discussed mechanical recovery and protective booming. ADEC voiced concern that not enough was being done.

Between Bligh and Naked Islands, five high-seas skimmers were operating along with 11-12 contract boats, two 36,000 barrel barges, the charter Admiralty Bay, one-two Navy SUPSALV MARCO skimmers, and USCG Strike Team barrier skimmer. Equipment was staged on Naked Island; this amounted to protective boom and 20 people.

*[AOSC NOTE: USEPA's information about the use of U.S. Navy skimmers appears quite premature as information from the Navy in this chronology indicates the skimmers did not arrive Valdez until Monday and were not in service until Wednesday. It is more likely that the MARCO skimmers observed were those belonging to Alyeska.]*

At the morning's DC-6 dispersant trial, the spray pattern was poor; results were inconclusive. FOSC CDR McCall and SOSC Lamoreaux reported that the dispersants worked well on the leading edge but not on black oil. The video showed immediate effect on the brown oil with just a congealing effect, no penetration. CDR McCall was not convinced. He commented that it would take a lot of dispersants.

Exxon consultant Allen reported that the burn test worked. 10-15,000 gallons of oil was consumed in 55 minutes, with 98 percent efficiency. The remaining sludge was picked up in the Port Fidalgo area. CDR McCall suggested that the leading edges of the slick be burned. Another ADEC test was scheduled. ADEC was to burn oil

along the leading edge of the slick adjacent to Naked Island. The Natural Resources Trustees gave their approval for limited testing.

Berkner talked about the animal rescue center. It would receive both live and dead wildlife.

XXXX *USEPA:* USEPA's Lautenberger telephoned USEPA's John Sainsbury to brief him. Sainsbury commented that he had been contacted by the leader of Clean Sound. The organization offered MARCO Class skimmers on Friday morning. Alyeska/Exxon never got back to Clean Sound after putting the skimmers on standby. Lautenberger called the USCG MSO, Valdez, to pass on this information.

1400 *EXXON:* Iarossi spoke to Exxon officials in Houston -- William D. Stevens, president, C. Melvin Harrison, vice president, and Ulyesse J. LeGrange, senior vice president, all of Exxon Company U.S.A.; and Thomas W. Gillette, external affairs consultant, and Robert M. Weatherford, business analysis manager, both of Exxon Shipping Company -- about the use of dispersants.

Iarossi reported that Exxon must have the consent of the USCG to use dispersants and, apparently, the USCG felt the need for the state's consent, even though such consent was not required because the oil was in Zone One.

Iarossi stated that he was frustrated because use of dispersants was being held up.

1400 *ADES:* Commissioner Kelso advised Drury that the governor was going to request a federal disaster declaration.

1400 *NRT/USCG:* Skimmers had recovered 2,275 barrels of oil from the water.

1411 *EXXON:* The SAT C-130 left Anchorage and conducted a spray mission using 5,100 gallons (93 drums) of dispersants.

1430 *EXXON:* Lindblom, Emery, and an Exxon contract video technician viewed the C-130 dispersant test. No USCG observer was available. The dispersant test was very successful, showing the same results as the previous day as verified by the unmistakable dispersal of crude and clear video representation.

1500 *ADES:* Sey advised Drury that the governor was going to declare a state disaster. Sey suggested that ADES open a state EOC in Valdez with ADES staff and augmentees from selected state departments.

XXXX *ADES:* At the request of ADES Director Martin, the state adjutant general activated the Alaska National Guard.

1500 *AOSC/CDFU:* Someone finally called the CDFU -- it was a contractor from ADEC. He asked if four boats could be ready within about two hours and whether two more could be available on standby. Leond made telephone calls. She identified four boats who were ready and put another 50 on standby.

1500 *NRT/USCG:* National Transportation Safety Board (NTSB) representatives boarded the EXXON VALDEZ.

-- *NTSB DICKENSON:* NTSB investigators boarded the EXXON VALDEZ to inspect the vessel's condition with particular emphasis given to the navigation equipment and the instrumentation on the vessel's bridge.

DAY THREE (Sunday, March 26)

(Eight members of the EXXON VALDEZ crew were interviewed during the next two days -- four personnel performing lookout and steering duties immediately prior to and during the grounding, two of the three deck officers, the chief engineer, and the radio electronics officer. Additionally, the state pilot who conned the vessel out of Valdez was interviewed as were eleven personnel attached to the USCG MSO which operates the VTC. The master and 3rd mate met with NTSB investigators but, on advice of their attorneys, refused to discuss the vessel's movements or any events pertaining to the grounding.)

**NTSB INTERVIEW-SHIER:** The boom that the NTSB investigators saw secured around the EXXON VALDEZ on Sunday afternoon, March 26, when they arrived on scene was one of the booms that was brought to the scene on the Alyeska barge.

1500 **EXXON:** One pump arrived in Valdez. A helicopter was arranged to the EXXON VALDEZ for pump delivery.

Iarossi met with RADM Nelson and CDR McCall at the MSO, Valdez. Iarossi again requested permission to begin dispersant use. RADM Nelson left the meeting to have an extensive telephone conversation with Governor Cowper. Iarossi continued discussion with the other USCG representatives.

1530 **ADES:** Valdez City Manager Doug Griffin offered to assist ADEC in locating floor space for a State EOC in Valdez. The possibility of using an empty building at the Valdez Community College was discussed.

1600 **NRT/USCG:** Dispersant application was conducted with C-130, equipped with Biebert ADDSPAC system. Results were satisfactory.

1600 **ADES:** The request from ADEC for airlift support from Seattle was passed back to ADEC for them to route through the ARRT.

1630 **O'DONOGHUE:** A second dispersant test of the day was made with a C-130 spray plane especially equipped to drop a fine mist of dispersant from an altitude of 50 feet. It did appear to immediately change the oil floating on the surface of the water. Exxon's Iarossi called the results spectacular, FOSC CDR McCall was less enthusiastic.

**PWSCA/ADEC:** One load of dispersants from a C-130 was dumped in the afternoon. A total of 8,200 gallons was applied in two drops in this third test approved by the Coast Guard. The first drop (at 1130 this morning) used a DC-6 aircraft but there were problems with the deployment system. A C-130 aircraft with proper deployment equipment was ordered for this second drop of the day. Based on this being marginally effective, CDR McCall gave his OK for continued use for Zone One at 1900.

**STATE/NTSB:** A dispersant application, this time using a C-130 aircraft with a different spray pattern than the DC-6, was considered a success, primarily due to a weather-induced agitated sea which, for the first time since the grounding, favored the use of dispersants.

This was the last effort of Exxon on this day to conduct dispersant drops.

XXPM **EXXON:** The Coast Guard authorized use of open burning.

1700 **NRT/USCG:** 46,256 barrels of oil transferred to EXXON BATON ROUGE.

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1700-1845

**EXXON:** USCG (RADM Nelson, CDR McCall and CDR Rome), Exxon (Iarossi, Rassinier, O'Brien, and Clough), and Alaska representatives (ADEC's Commissioner Kelso, SOSC Lamoreaux, and Dietrick; AAG Brown, and Denby Lloyd, special assistant to Alaska's governor) met in Valdez to discuss the use of dispersants and the overall cleanup coordination.

RADM Nelson said he had just been on the telephone with Governor Cowper about dispersant and cleanup operations. RADM Nelson explained that a spill of this size dwarfed the ability of mechanical cleanup, noting that you could "skim forever, but not get rid of it."

Iarossi urgently pressed for immediate authorization to use dispersants. Iarossi noted that time was critical and that the parties were "slowly being consumed with political issues vs. spill issues" and that this was draining precious time and resources. Iarossi agreed with RADM Nelson that the spill was too large for mechanical recovery efforts, and further noted that the failure to authorize dispersants was creating an enormous problem and that Exxon should be spraying dispersants right now.

FOSC CDR McCall said that he had no qualms regarding using dispersants in Zone One. He stressed the emergency and stated that unless dispersants were used the oil would end up "some place" eventually. He argued that major dispersant operations be commenced on the leading edge of the oil in Zone One.

Commissioner Kelso said that the state was not ready to sign off on open-ended use of dispersants. Instead, the state would consider appropriate applications on a case-by-case basis. Kelso said the state was evaluating a "trade off," looking at a mix of environmental effects and impacts that would occur if dispersants were applied vs. allowing the spill to be washed up on the shoreline and thereafter cleaned up with mechanical efforts.

The meeting continued with both Iarossi and the USCG arguing for immediate use of dispersants in Zone One.

CDR McCall finally concluded that there was agreement to use dispersants in Zone One. ADEC representatives made no comment to the contrary.

1730

**USCG POLREP SEVEN:** USCG, ADEC, state AG representatives, and Exxon officials met to discuss close cooperative effort on operations, use of burning techniques and dispersants, and additional skimmer operations.

**CFMC:** At a meeting with the FOSC, Exxon Shipping's Iarossi asked for permission to begin full use of dispersants. The FOSC gave full authorization for use in Zone One. He recommended that Exxon not get too carried away with dispersants and limit their use to the leading edge of the slick and within one mile of the leading edge.

**USCGD 17:** Iarossi, RADM Nelson, Commissioner Kelso, and their aides met at the USCG MSO. A primary topic was how the response organization was to function. By the time the joint meeting was over, there was consensus on a new organizational structure which was to be formally proposed at an operations meeting the next evening. Aspects of the structure would be further fleshed out at a meeting with resource assessment agencies scheduled this evening for 1930 and, beginning immediately, the USCG and ADEC would each place a member in the Exxon command post.

In the newly conceived organizational structure, operations coordination would be headed by Exxon but the USCG, ADEC, ADES, ADFG, CDFU, and Exxon would each have a voice in guiding the on-scene response. Additional guidance and technology would be provided by the scientific and resource agencies and

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environmental groups. RADM Nelson, Iarossi, and Kelso, would jointly steer the response and work with the operations team to establish goals. (Through apparently tacit agreement, details of what came to be the three-member steering committee were to be withheld until formally proposed.)

XXPM *McCLINTOCK*: Sunday afternoon and evening, an Operations Committee consisting of Exxon, the USCG, ADEC, ADFG, USFWS, ADES, DAFD (*Alaska Forestry Division--???*), and CDFU was established. Having a local organization on the Operations Committee was invaluable to Cordova because it gave them direct access to information on the response effort.

1730 *ADES*: Wuerpel was working with the acting police chief of Valdez to identify a building for a State EOC.

1734 *EXXON*: 150 55-gallon drums of dispersants were received from California.

1800 *NRT/USCG*: Skimmers recovered 3,004 barrels of oil.

1808 *EXXON*: 172 55-gallon drums of dispersants were received from Houston.

1830 *EXXON*: The dive-boat Vixen was alongside the EXXON VALDEZ for vessel survey operations.

1830 *NRT/USCG*: Alaska Governor Cowper declared a state of emergency.

*GOV'S OFFICE*: Governor Cowper signed a declaration declaring that a condition of disaster existed in the vicinity of Valdez and the area impacted by the spilled oil and authorized the Director of ADES to utilize any State of Alaska resources considered necessary for disaster assistance and to order state departments and agencies to provide assistance in accordance with the State Emergency Plan.

The effect of the declaration was to free up state resources, including disaster funds, to be applied toward the spill cleanup. This state disaster declaration was also a prerequisite before a federal disaster could be declared.

The governor said that "This oil spill may well be the greatest disaster to hit Alaska since the Good Friday earthquake 25 years ago."

1830 *ADES*: Drury attended an ARRT meeting at the Coast Guard.

1845 *EXXON*: The Exxon/USCG/State of Alaska meeting concluded. CDR McCall for the first time authorized the use of dispersants in Zone One other than for tests.

*O'DONOGHUE*: CDR McCall approved the use of chemical dispersants as a means of breaking up the slick. He said he felt the situation left no alternative.

"The volume of oil released into the water is, for all intents and purposes, beyond control by mechanical means," McCall said.

"We'll still be here a year from now if we have to use (only) skimmers," Iarossi said.

1900 *NRT/USCG*: 51,064 barrels transferred to EXXON BATON ROUGE. Commercial divers conducted survey with the use of video equipment.

1900 *USCG POLREP SEVEN*: NTSB members returned to Valdez from aboard the EXXON VALDEZ.

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- 1930 *EXXON*: Marine Pollution Control (Detroit, Mich.) sent a crew of eight out via the vessel Colombia Queen for portable pump operations.
- XXPM *EXXON*: Exxon Command Center arranged a boat to bring pumps to the EXXON VALDEZ. The pumps were transferred to the EXXON VALDEZ across the deck of the EXXON BATON ROUGE due to rough weather. Arrangements were made for two triple-header manifolds to be flown to Valdez.
- 1930 *ADES*: Drury confirmed Valdez Community College as the location for the State EOC.
- 1930 *USCGD 17*: At the USCG MSO, Asst. FOSC CDR Rome and various others from the Exxon/USCG/State of Alaska meeting, which had recently concluded, assembled with representatives from the various resource assessment agencies. As hoped for in the proposed new organization, it was agreed that USNOAA would chair a Science Committee that would include other USDOC agencies, USDOl, ADFG, Exxon, and environmental groups.
- USNOAA*: The Federal-State Resource Assessment Working Group met again. It was agreed USNOAA would be responsible for daily data summaries and maps for quick dissemination and ADEC would be responsible for detailed data management for support of ongoing studies.
- Trajectory modeling capabilities at Exxon, Alyeska, and NOAA were discussed and coordination of overflight logistics was agreed to. It was recommended that Exxon develop protection priorities, based on the oil trajectories, available equipment, and sensitive areas, for agency review and comment, rather than ask for blanket protection priorities from the agencies and fishermen.
- Each survey-element team leader would present a summary of their daily results at the 2000 hours Science Committee meeting.
- 2000 *NRT/USCG*: Additional survey by divers revealed port tanks intact. Some distortion was evident.
- [AOSC NOTE: According to Exxon, the initial survey of the vessel, was on Saturday, March 25. Later surveys confirmed by video recorder (the context appears to place these as before Monday morning) showed the vessel was resting on a rocky ledge slightly forward and to the right of the vessel's midpoint. Less than 15 percent of the vessel's bottom was actually grounded on the ledge.]*
- 2000 *USCG POLREP SEVEN*: Spill estimate remained 250,000 barrels. The following equipment was currently deployed and operating: one Vikoma Sea Skimmer, two MARCO skimmers, one W-4 Walosep, one GT-185, one Walosep W/2, one ODI skimmer, 7,000 feet of boom around EXXON VALDEZ and EXXON BATON ROUGE, 5000 boom feet with barge, 2000 boom feet out with boats, 3000 feet sorbent boom, 500 feet fire boom. Seventeen fishing vessels with various functions such as deploying, holding, and towing boom were deployed. Five Crowley tugs were deployed; two Foss barges (one on scene, one enroute). 15,545 feet of additional various boom currently at AMT.
- Weather: Northeast winds in Valdez Arm had increased to 25 knots with some higher gusts, seas to four feet, low temperature to 30 degrees.

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2000

USNOAA: USNOAA SSC Whitney told the evening Science meeting that the state had officially designated the area as a disaster area. This would allow for a variety of services to be utilized. Andy Teal from Imperial Oil would represent Exxon at the Science meetings. On Monday, Ron Goodman (organization not identified) was to bring an airborne IR (infra-red) unit in and the USCG was bringing in its "Eye in the Sky" (AIREYE). With these, they should be able to determine exactly where the oil was located.

Updates were provided by the Resource Assessment Working Group and Exxon. Exxon was considering three key strategy issues: use of dispersants in Zone One around the shipping channel; isolation booming; and burning in isolated pockets.

USCG H-3 helicopter overflights would be at 0800 daily. The Operations Committee would meet at 1830 daily.

2010

USCG POLREP SEVEN: CDR McCall participated in a press conference with Exxon. Press interest remained high. Participation in Good Morning America and CBS Morning News program was expected.

O'DONOGHUE: At the Valdez Civic Center Sunday evening, Exxon's Iarossi applauded CDR McCall's decision to allow the use of chemical dispersants on the spill. Iarossi pledged to use all the tools at our disposal including dispersants, burning, and skimming.

SIMS: Cordova marine advisory agent Steiner had been joined in Valdez by Grimes, Lamb, and Guard and they had gone together to the press conference. There, Iarossi admitted that the spill was now beyond control, at least by mechanical means. Iarossi announced that Exxon now planned to use a combination of laser-ignited fires and chemical dispersants.

2100

USCG POLREP SEVEN: Burning operation planned for this evening was canceled due to wind velocity.

2100+-XXXX

SIMS: The press conference over, Steiner and the Cordova fishermen were joined by Ray Cesarini, boss of Sea Hawk Seafoods. With Cesarini they went back Sea Hawk's plant, closed for the season, just outside of Valdez at the east end of the bay, where the Cordovans had been staying in an unoccupied bunkhouse.

Steiner was concerned about the after-effects of burning, given the nausea and headaches inflicted yesterday on Tatitlek, and was also concerned about the use of dispersants which don't get rid of the oil but just break it down into droplets. To him it was the same dose of poison in a smaller pill; it only meant that smaller creatures could die first. If the oil got into the shrimp, it would get into the whales.

The men were up all night, talking among themselves and telephoning their fellows in Cordova. Some wanted to blockade the Valdez Narrows with their boats to stop all tanker traffic to the pipeline. Others were more concerned with trying to save three hatcheries in the patch of the slick. If the oil coated the spawning estuaries and destroyed the natural salmon run, the hatchery stock would be all the fishermen had left to reseed.

2230

EXXON: Iarossi and Lindblom reviewed comprehensive plans to start full-scale use of dispersants at first light Monday morning.

XXPM

AOSC/CDFU: The ADEC contractor called CDFU again. The boats were to be told to go to Valdez to fuel up and get supplies and that they would be going out to boom off some of the streams and areas in the immediate area of the tanker.

DAY THREE (Sunday, March 26)

XXXX *EXXON*: All day the oil spill largely remained in Zone One.

XXXX *ADEC*: Visual observations from aircraft during the day by ADEC indicated the slick extended 16.5 miles southwest of Bligh Reef, the same as yesterday.

XXXX *USFWS*: The State of Alaska had two vessels working with USNOAA on fisheries damage assessment. USDOJ conducted resource surveys providing technical advice to the FOSC, identifying species of dead seabirds, and providing necessary federal wildlife permits.

Exxon established a receiving/cleaning center for oiled wildlife and receiving center for dead wildlife. It had contracted with IBRC for sea birds, and with Sea World for sea otters. USCG established contact center for volunteer help.

Three hundred to 500 sea otters were at risk in the area. Greatest risk was around Naked Island, less so at Glacier Island. Two oiled otters had been observed, none captured.

October-May was winter scenario for birds in PWS, with relatively fewer birds than in summer. Alcids/sea duck made up 50 percent of those present (20/40 birds per km. of shoreline). Seventy-five oiled birds west side of Bligh Island. Naked Island was site of greatest sea bird risk, less so at Glacier Island. Risk to sea birds would increase when herring begin to spawn in shallows.

Herring and juvenile salmon were fisheries at greatest risk. Herring had been observed offshore waiting for nearshore water temperatures to warm. Spawning would begin in a week or two, depending on weather. Sea birds follow spawners into spawning areas. Juvenile salmon were moving out of rivers into estuaries now.

XXXX *USCG POLREP THIRTY-FIVE*: Five skimmer systems were operating and the cumulative total recovered was 1,560 barrels of oil, or 360 for the day.

XXXX *ADES*: The number of flights into or out of Valdez airport totalled 187. The AK ARNG flew three missions in the CH-54 with communications equipment for ALASCOM while the AK ANG C-12 and C-130 were in the air for four missions.

2400 *EXXON*: The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 283: 39 Exxon employees on-site, 163 contract personnel, 54 contract fishing personnel in Valdez, and an estimated 27 contract fishing personnel in Cordova.

One-hundred fifty tons of air cargo arrived today including skimmers, dispersants, and portable pumps. Seventy-two vessels were deployed as were 33,000 boom feet, six skimmers, and an unknown number of aircraft.

DAY THREE (Sunday, March 26)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

MONDAY, MARCH 27, 1989

## DAY FOUR

### Approximate Alaska Local Time

0625      *USAF*: Valdez sunrise.  
1918      *USAF*: Valdez sunset.

XXAM      *NRT/USCG*: High winds seriously impaired response operations. Overnight, gusts clocked as high as 73 miles per hour drove the spill nearly 40 miles into Prince William Sound, coating beaches at Little Smith, Naked, and Knight Islands. Skimmer systems, booms, and other equipment had to be moved to sheltered water for protection.

XXAM      *AOSC/CDFU*: One of the four fishing boats dispatched by CDFU stopped to hold up in the bay, the wind was blowing so hard, and never made it to Valdez. Three of the fishing boats did reach Valdez during the night where they were waiting out the rest of the storm.

XXAM      *EXXON*: Sunday night and early Monday morning, gale force winds spread out the oil spill and blew most of the oil into Zone Three in the vicinity of Naked and Knight Islands. In Zone Three, use of dispersants was generally not recommended, and the USEPA and ADEC must approve their use on a case-by-case basis.

0015      *EXXON*: Triple manifold transportation was delayed due to plane problem. Ship's engineers rigged double and triple manifold connections in machine shop.

0207      *EXXON*: The tug *Stalwart*, on starboard bow of *EXXON BATON ROUGE*, was asked to push "Slow Ahead" on both engines to keep *EXXON VALDEZ* from pivoting in high winds of about 42 knots.

0230      *NAVSEA(SUPSALV)*: The initial two Navy SUPSALV skimming systems arrived Elmendorf AFB, Anchorage. On Sunday, the skimmers had been trucked on Navy-owned flatbed trailers, operated by commercial haulers, from the ESSM base, Stockton, Calif., to Travis AFB, Calif., a journey of 50 miles, where they were flown as a Special Assignment Airlift Mission (SAAM) by the Military Air Command (MAC).  
Other Navy SUPSALV equipment mobilized at this time included four tow boats, one shop van, one rigging van, and one pollution pump system.  
The first cadre of Navy personnel arrived in Anchorage before the equipment arrived from Stockton. Other operators traveled in the aircraft with the first shipment from Stockton.

0339      *EXXON*: The third pump was started.

XXAM      *EXXON*: Spray froze on the deck of the *EXXON VALDEZ* in heavy winds.

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0542 *NRT/USCG*: USCGC Rush launched an HH-65 helicopter to provide FOSC McCall and key response personnel an overflight view of the spill. The Rush continued to enforce air space restrictions.

0600 *NAVSEA(SUPSALV)*: The two Navy SUPSALV skimming systems began their journey from Elmendorf AFB by commercial truck for an eight hour trip to the AMT, Valdez.

0600 *EXXON*: Cargo was discharging from the EXXON VALDEZ at 3,600 barrels per hour. 77,000 barrels total had been transferred to the EXXON BATON ROUGE.

0600 *SIMS*: Winds overnight had raged at up to 73 miles per hour. (At first light) planes could not fly to see how far the slick had gone, but word came in via fishing vessel radios that the eastern ends of several islands had been hit hard, with oil coating shoreline spruces to a height of 30 or 40 feet. The gale whipped the oil and water into a froth, called mousse, which can double the volume of a slick, and smeared oil 30 miles out into the sound.

XXAM *EXXON*: The precarious nature of the EXXON VALDEZ was confirmed early Monday morning when gale force winds of about 50 miles per hour caused the vessel to pivot 12 degrees to a new resting position.

XXAM *USNOAA*: Booms around the tanker were lost overnight and the tanker shifted ten degrees about the vertical axis.

XXAM *SIMS*: Steiner and the Cordova fishermen implemented an idea formulated during an all-night discussion and planning session. They had a press conference of their own, timing it to begin just after the news people had eaten breakfast. According to Grimes, it was not so much a press conference as an educational forum. Though angry, they were willing to talk about how oil kills fish and other animals, what it would mean to have the fishermen out of work, and more details on why the locals were so angry.

0930-1200 *USNOAA*: Overflight in NOAA helicopter observed slick had broken into windrows and was forming a mousse. A single large concentrated patch was no longer present. Oil was tending southwest past Naked Island, some impact on southeast tip of Naked. Two large windrows with heavy concentrations south of Naked Island. Very heavy concentrations on north side of Smith Island. Southernmost streamers were down by Seal Island.

1000 *USEPA*: USEPA's Kellogg, on scene in Valdez, briefed his regional and headquarters offices on the status of the spill, cleanup, and damage assessment.

1015 *EXXON*: First surveillance aircraft took off from Valdez airport.

1054 *EXXON*: A fourth pump was started. Three more pumps were being set up.

1100 *NRT/USCG*: 90,599 barrels of oil had been transferred to EXXON BATON ROUGE.

DAY FOUR (Monday, March 27)

1100 *CFMC*: The high winds which had grounded aircraft slackened enough so that aircraft could again operate. By this time, the 35-40 knot winds had pushed the leading edge of the slick into a Zone Three area. The ARRT gave permission for a single planeload of dispersants to be dropped in this area.

XXXX *CFMC*: The ARRT decided to allow the use of burning if sufficient oil concentrations could be located and the fireproof burn placed at the site. (It turned out, however, that because of the way the winds and waves of the storm dispersed the oil and emulsified it, no more burning was done.)

1245 *NRT/USCG*: USCG overflight revealed that oil pooled up southwest of EXXON VALDEZ had formed dark, emulsified ribbons. Entire north and northeast side of Smith Island was heavily affected by thick oil. Some oil reached Seal Island. Oil glancing eastern end of Naked Island was a lighter sheen, containing smaller ribbons. No recovery of oil since 1800, March 26.

1245 *USCG POLREP EIGHT*: Spill estimate remained 250,000 barrels. Overflight revealed that skimmer operations and containment booms were not effectively operating due to high wind and sea conditions on scene. Most of the work boats and skimmers had moved into sheltered areas south of Bligh Island.  
*USCG*, state, other federal, Canadian, and Exxon forces were actively planning strategies to accomplish major shift in operations.  
 Weather: Small craft advisory. Northeast winds in Valdez Arm were currently 30 knots with gusts to 40 knots. Seas to four feet in the Arm. Temperatures in mid-twenties.

1250 *EXXON*: SAT C-130 attempted to leave Anchorage for a spray mission but was not given air traffic control clearance to take off.

1255 *USEPA*: USEPA's Lautenberger arrived Valdez on an AK ANG flight to join Kellogg. (Commercial flights were grounded at the time.) Johnson, in Anchorage, was to be the liaison between Region Ten and Valdez. Lautenberger spoke to his Washington, D.C., office which wanted to know what was going on with Natural Resources Damage Assessments and how the National Response Team might assist the Exxon Valdez oil spill response.

1300 *EXXON*: RADM Nelson and Iarossi compared the latest surveillance data showing the new location of the spill and scheduled a helicopter overflight.

1300 *USCG POLREP EIGHT*: T/V EXXON VALDEZ remained aground on Bligh Reef. Position had shifted from 284 degrees at 0010 to 293 degrees at 1300. Two tugs engaged in holding EXXON VALDEZ and EXXON BATON ROUGE, which was alongside, in present position.

1330 *NRT/USCG*: ARRT assembled for a teleconference. The staging of sorbent materials at sensitive beaches was planned for areas in the path of the oil spill trajectory. Exxon was informed of the need for beach cleanup crews.  
*USCG POLREP EIGHT*: ARRT also discussed possible federalization of efforts. Reconnection of containment boom around grounded vessel and contingency planning for handling any possible additional discharges from the vessel were mentioned as

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high priority. USDOJ-BLM had firefighting crews available for beach cleanup. The incorporation of USFEMA into ARRT teleconferences was being set into motion.

-- **USCG-ARRT:** ARRT primary members participating in the teleconference were USEPA-Kellogg, USDOJ-Gates, USDOC-Becker, ADEC-Kent, USDA-Paul, USCG MSO Valdez-CDR Rome and LCDR Falkenstein, and USCGD17-Capt. Haines and LCDR Tiernan. Other agencies represented were ADFG, USDOJ-BLM, and USDOC-NOAA, NMFS, and NWS.

Skimming operations had terminated due to high winds and seas. When skimming resumed, one aircraft was to be overhead providing information on location of fingers of oil. Eleven skimming systems were on scene and Navy skimmers were enroute.

The FOSC authorized a dispersant application on emulsified oil in Zone One; if successful, application would continue. No *in-situ* burning was conducted because of weather.

Primary concerns of the ARRT were the resources at risk, whether Exxon would have equipment and resources readily available for shore cleanup of islands (Alyeska had agreement with USBLM on use of Native firefighting crews if needed), the possibility of further discharges from and the possible breaking up of the EXXON VALDEZ, and the need for additional phone lines and personnel to handle media requests.

-- **ADES:** The ARRT chair asked all members to think of any recourse that might be used to solve the problem and to consider whether federalization was necessary. Both questions were posed for serious consideration, rather than immediate answers. The USCG was coordinating with Exxon on cleanup manpower. USDA-FS offered its wildland firefighting teams should Exxon not be able to come up with the necessary manpower. The USCG said it preferred workers be transported to sites by boat vs. air transportation.

1400 **NAVSEA(SUPSALV):** The Navy SUPSALV skimming systems were expected to arrive at the AMT, Valdez, at this time. After arrival, they required assembly.

1415 **EXXON:** Spraying equipment for a MarkAir C-130 (third spray plane) arrived in Anchorage from Phoenix.

1425 **EXXON:** The SAT C-130 left Anchorage, conducted a spray mission using 5,250 gallons (95 drums) of dispersants on oil remaining in Zone One. Results were satisfactory. The plane returned to Kenai to reload dispersants.

1500 **CFMC:** Exxon conducted a dispersant application at an unauthorized location. (The application was revealed by Exxon only after the fact.)

1500 **EXXON:** Four pumps operating, lightering at 3,300 barrels per hour. 105,000 barrels total transferred. Three more pumps from Houston and one from New Orleans were being arranged.

XXXX **USEPA:** Ted Rogowski, a USEPA staffer at Region 10, spent the day researching oil spill laws -- Sections 309 and 311 of the Clean Water Act.

The Regional Technical Working Group (USEPA and ???) held its quarterly meeting focused on oil spills. Dan Robinson of USEPA, Anchorage, attended. Also

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during the day. Robinson met with a staff member from the office of U.S. Rep. George Miller of Calif.

- 1530 *EXXON*: Iarossi and RADM Nelson returned from a two-hour surveillance overflight. Iarossi requested the ARRT approve use of dispersants in Zone Three in vicinity of Smith Island. Iarossi waited in the MSO for reply.
- 1530-1745 *USNOAA*: NOAA overflight. Small amount of sheen extended south of ship for approximately one-half mile. Very light and scattered sheen areas were between ship and west edge of shipping lane. A large area containing sheen (rainbows and greys) with mousse, oriented in windrows, extended from approximately the western end of the shipping lanes to midway Glacier Island and approximately three miles south of Glacier Island south to Smith Island. Coverage was not continuous.
- Heavy sheen and mousse was in most coves along eastern edge of Peak and Naked Islands. Small amount of sheen/mousse in South Bay and on eastern edge of South Bay. Heavy sheen between the south end of Naked Island and down to Smith Island. Heavy beach impacts on north side of Smith Island (both the main island and the small island), along the entire length. In many areas mousse was piled up to 20-50 yards against the beach. Lighter concentrations of sheen and mousse in windrows between Smith Island down to Knight Island. Heavy sheen on beaches of Eleanor Island. Heavy sheen approximately 100 yards off beaches of Knight Island down to a latitude approximately the same as Seal Island.
- XXPM *USFWS*: Overflight revealed thousands of seabirds, few otters. High winds/rough seas hampered observations. No dead otters observed yet; two oiled otters seen, none captured. About 100 dead seabirds seen (goldeneyes/scoters). Six USFWS personnel onsite: one technical advisor to USCG, two otter experts, three bird identification experts.
- XXPM *SIMS*: Monday afternoon, Grimes and Lamb dropped in on the ADEC operation at the state building in Valdez. There they heard a report that Exxon had sprayed dispersants illegally in a herring-containment area. While standing around and talking about how they thought things ought to be done, ADEC's Dietrick, the agency's number-two individual in Valdez, walked in. Unbeknownst to the fishermen, Dietrick had just been told by an angry Governor Cowper to sidestep Exxon, get creative, and do something.
- Five minutes later, Dietrick had the two fishermen in an office behind closed doors discussing his question, what did they think should be done. The fishermen's answer was to protect where the most salmon were -- the three hatcheries at Port San Juan, Esther Island, and Main Bay. If these were saved, in a worst-case scenario, the natural environment could be reseeded from hatchery stock.
- 1630 *PWSCA/ADEC*: The first non-experimental dispersant use occurred and consisted of applying 5,500 gallons in a Zone One preapproval area.
- Also at 1630, a request to apply dispersants in a Zone Three area was received by the state.
- XXXX *USNPS*: Don Cornett, Exxon's public affairs person and project manager at Valdez, in a telephone conversation with Les Rosenkrance, USDOJ-BLM associate state director for Alaska, requested that a Type I Alaska Incident Command Team (ICT) come to Valdez. Apparently sometime that day, the USCG, too, had asked USBLM.

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about an ICT. In particular, the USCG's interest was in whether the ICT could set up five on-shore camps for cleanup crews that would be working in PWS.

(Although ICTs train and serve principally to manage responses to wild fires, they are considered "all-risk" and participate in other types of incidents such as disaster relief. This was apparently the first request for an ICT to an oil spill response, however.)

Mobilizing of a team, which was coordinated through the Interagency Fire Center in Boise, Idaho, began immediately. Appointed Incident Commander and given the job of assembling the team was Dave Liebersbach, USBLM Alaska Fire Service fire-management officer, who worked out of the USBLM Fire Service Center in Fairbanks, Alaska.

XXPM *GOV'S OFFICE:* Governor Cowper, late Monday, asked President Bush to declare an emergency for Alaska under provisions of the Stafford Disaster Relief and Emergency Assistance Act. The Governor cited the 250,000 barrel oil spill in Prince William Sound as the largest oil spill to ever occur anywhere in the United States.

"I have determined that this situation is of such severity and magnitude that effective response is beyond the capabilities of the State of Alaska and affected local governments," Cowper told President Bush in a letter forwarded through USFEMA Region X in Seattle.

"It may well be beyond the capabilities of the oil companies -- who will ultimately bear responsibility for this disaster -- as well," Cowper wrote.

If approved, the Governor's request could result in the appointment of a federal official to help coordinate the spill cleanup and advise federal, state, and local governments, and might free federal funds, should they be needed.

XXXX *AV WEEK:* The FAA established a temporary air traffic control tower at Valdez in a decommissioned tower building with the help of air traffic controllers from the US Army. The FAA also assigned two of its own controllers to the USCGC Rush to assist the CG in managing traffic over the sound below 4,000 feet.

1700 *EXXON:* Iarossi, waiting in the USCG MSO, was informed that dispersant use was approved in Zone Three.

1720 *PWSCA/ADEC:* The state informed the USCG of its approval for use of dispersants in Zone Three. Water depth and distance-from-shore conditions were included as part of the approval. (It turned out, however, that despite the approval, no dispersants were applied in Zone Three.)

1730 *EXXON:* Exxon was notified of conditional approval of specific request regarding dispersant use. Exxon ordered a SAT C-130 mission in Zone Three. The C-130, partially loaded with dispersants from Kenai, flew to Anchorage to load additional dispersants, for a total of 5,010 gallons (91 drums).

1830-XXXX *USNOAA:* Operations Committee met. The USCG reported that due to high wind conditions, skimmer operations were suspended. ARRT had approved dispersants in Zone Three between Naked and Smith Islands.

-- *USCGD17:* At the evening Operations Meeting, RADM Nelson (USCG), Commissioner Kelso (ADEC), and Iarossi (president, Exxon Shipping Company) presented more formally their plan with strategy for reorganizing the response effort.

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As discussed in the Operations Meeting yesterday, a steering committee consisting of the three was in place.

-- **EXXON:** Agreement was reached at a joint meeting of the Steering and Operating Committees, comprised of representatives from the USCG, Alaska state agencies, fishermen, and Exxon, to protect four key fish hatcheries along the western side of PWS (Esther Bay, Main Bay, Sawmill Bay, and Eshamy Bay).

[AOSC NOTE: Eshamy Bay was actually a wild-stock area, not a hatchery.]

XXXX **EXXON:** It became apparent that areas east of the spill site would not be affected due to the gale force winds of the prior night.

1900 **NRT/USCG:** At the ARRT teleconference, permission was given for dispersant application. The scheduled dispersant application did not take place, because aircraft did not arrive at authorized site.

-- **EXXON:** The SAT C-130 left Anchorage. After arrival in Valdez, the mission was aborted due to darkness. (Subsequently the state withdrew approval for this mission.)

-- **CFMC:** The FOSC cancelled the application of dispersants after fading light made observation impossible and the dispersant aircraft still had not arrived in Valdez. (The poor weather essentially ended the issue of dispersant use. The amount of time that had passed since the initial spill, coupled with the effects of the storm waves, had transformed the spilled oil into indispersable mousse and weathered oil.)

1900 **NRT/USCG:** 124,299 barrels of oil had been transferred from EXXON VALDEZ to EXXON BATON ROUGE.

USCG overflight reported heavy shoreline contamination on northeastern end of Knight Island. Large pools of oil appeared in the bays and inlets of the island. Oil heavily affected Eleanor Island moving west around north end of island. High winds moved spill beyond sites initially selected for recovery operations.

1900-2400 **AOSC/CDFU:** ADEC telephoned CDFU again and stated that the Port San Juan hatchery was in jeopardy, they were looking for 15 boats to go out. What they needed were seine boats with a jitney in the water, a skipper, and four crew members. Leon commendeered another individual to come into the office and they were on the phone until midnight calling people and dispatching boats.

2000 **EXXON:** The EXXON BAYTOWN was notified about the possibility of lightering from the EXXON VALDEZ.

2000 **NRT/USCG:** Science Committee discussed the dispersant drops and overflights. There were two NOAA, two ADEC, and one Exxon overflights. All found heavy oiling on north side of Smith Island. Hatcheries could become affected and should be contacted so that boom could be implemented.

Resource-assessment groups reported some activities such as fisheries reconnaissance surveys (by skiff and helicopter) and bird and marine mammal surveys continued. High winds put marine mammals into the water making them more vulnerable. Other surveys including the intertidal, water sampling, and beach surveys were cancelled due to the weather.

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The Alaska Department of Natural Resources (ADNR) representative indicated permits for access to beaches would have to be obtained.

CDFU requested agency reps from USNMFS, USNOAA, and ADFG attend its meeting at 1900 tomorrow, March 28.

2030 *EXXON*: Five pumps were on line. Cargo discharging was about 6,000 barrels per hour.

2100 *NRT/USCG*: Three thousand barrels of oil recovered.

2100 *USCG POLREP NINE*: Three thousand barrels of oil had been recovered by mechanical means. Five LCM landing craft were transporting equipment. 33 contract vessels were deployed, and two tugs were holding grounded vessel. Seven skimmers were on scene and six skimmers were in varying states of readiness.

Oil movement was extremely rapid due to high wind conditions and movement of oil had proceeded beyond those sites initially selected for recovery operations.

Navy SUPSALV skimmers had arrived in Valdez and were staged at the Valdez container dock with plans to transport on scene.

Salvage team was more optimistic that EXXON VALDEZ may be floatable.

Virtually all mechanical recovery operations had halted due to weather conditions. Wind gusts were recorded up to 70 knots overnight. Weather Forecast: Gale warning, northeast winds to 35 knots with gusts to 50 knots decreasing to northeast 15-knot winds by afternoon 28 March. Temperature in mid-twenties.

XXXX *ADEC*: Visual observations from aircraft confirmed that the slick extended a distance of 37 miles southwest of Bligh Reef. The wind had caused the leading edge of the slick to travel 20.5 miles in a day.

XXXX *ADN*: A messenger had delivered word of the spill to Senator Stevens at his Caribbean hideaway. No flight out was available.

XXXX *USCG POLREP THIRTY-FIVE*: Five skimmer systems were operating and the cumulative total recovered was 2,275 barrels of oil, or 715 for that day.

XXXX *ADES*: The number of flights into or out of Valdez Airport totalled 132, the lowest in the four days of the oil spill. The AK ANG C-130 was in the air for one mission.

2400 *AOSC/CDFU*: Leond got the fuel dock in Cordova to open up so the fishermen for the Port San Juan mission could fuel their boats.

(Leond pointed out later to the AOSC that these individuals, both captains and crew, had no idea they would ever be paid. They bought their own fuel and their own groceries. They just wanted to save the Sound and the hatcheries.)

The CDFU office started out with three telephone lines. By sometime on Monday, they added two more phone lines in order to handle the phone calls. Its staff became fishermen and spouses who didn't have boats in the water.

[*AOSC NOTE*: CDFU's budget was normally \$50,000 a year. They did eventually get advance assistance from Exxon in the sum of \$250,000. However, Leond said to the AOSC on June 28, 1989, that most of that money had been spent by then.]

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-- *SIMS*: Fifteen fishing vessels were officially employed in the cleanup effort.

-- *EXXON*: The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 275: 45 Exxon employees on-site, 207 contract personnel, 15 contract fishing personnel in Valdez, and an estimated eight contract fishing personnel in Cordova.

Ninety-three tons of air cargo had arrived including ADDSPACS, dispersants, and manifolds. Sixty-six vessels were deployed as were 34,000 boom feet, seven skimmers, and an unknown number of aircraft.

DAY FOUR (*Monday, March 27*)

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# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

TUESDAY, MARCH 28, 1989  
DAY FIVE

## Approximate Alaska Local Time

0622            *U.S.A.F.*: Valdez sunrise.  
1920            *U.S.A.F.*: Valdez sunset.

XXXX            *ADES*: The EXXON VALDEZ was resting on a small mound rather than a flat table. Only the port tanks were not punctured. Two tugs were being used to maintain the tanker in its present position.

--                *ADEC*: EXXON VALDEZ was resting on a mound. Tugs were being used to hold it in place.

0000-0300        *SIMS*: Lamb, Grimes, and Steiner -- along with Ott, a marine biologist as well as a board member of CDFU -- were ushered into the presence of the oil-spill brass: Iarossi, Kelso, RADM Nelson, and their respective aides. Kelso had known that the fishermen were coming, but it was a surprise to the rest. Soon, Lamb was telling them about where the water flows, Grimes was talking about what he calls the heart of the earth -- Prince William Sound, and Steiner and Ott were talking biology.

In the late night, the fishermen and the bureaucrats realized together that there was no way to halt the spreading slick, that what they needed to do was to focus on something else that had a probability of success. That something was a few key defenses -- the hatcheries, the herring containment areas of Herring Bay and Sung Harbor, the area along the northwest shores of Montague Island, and the mouths of a few salmon escapement streams.

When the meeting ended at 0300, Dietrick pulled the Cordovans aside. "OK, folks, you're in. You tell us what you need and somebody'll get it," Dietrick said.

--                *HORTON*: Monday night, the state managed to get Grimes, Lamb, and a few other Cordova fishermen into a top-level planning meeting with the USCG and Exxon. Lamb had made some calculations earlier about how the tides and currents would distribute the slick. He and the other fishermen showed the assembled officials where the oil would be carried by the currents and pressed the critical need to boom the hatcheries.

According to state officials, Iarossi immediately gave the fishermen a virtual blank check to procure boom and other supplies, reportedly writing on his business card that Exxon was good for a million dollars and more if needed.

XXXX            *ADFG*: The news media released information that EXXON VALDEZ Capt. Joseph Hazelwood had been convicted on charges of drunk driving twice in the last five years and his automobile driver's license had been suspended or revoked three times during that period.

0230            *EXXON*: Sixth pump on line.

XXAM            *ADN*: Alaska's Washington, D.C., office was to have transmitted the state's disaster relief application to federal administrators.

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XXXX *ADN:* President Bush indicated he was considering a federal takeover of the massive oil-spill cleanup operation in Alaska's Prince William Sound. The President sent William Reilly, head of the Environmental Protection Agency, Transportation Secretary Samuel Skinner, and Coast Guard Commandant ADM Paul A. Yost, Jr., to Alaska to "take a hard look at where this disaster stands."

0500 *EXXON:* 184,000 barrels total transferred to the EXXON BATON ROUGE, an average of 7,700 barrels per hour. Seven pumps were now operating.

0600 *SIMS:* After two hours of sleep, a small group of fishermen gathered at the ADEC office. They were given a courtroom to convert into an office, provided with phones and tables, and given the keys to a van.

XXXX *ADES:* The USCG began the reopening of the Valdez terminal at first light.

-- *FDNM:* The Port of Valdez reopened. The ARCO SAG RIVER was to be the first tanker to arrive at the AMT since the EXXON VALDEZ accident. Nine other tankers were to follow.

0800-1030 *USNOAA:* Morning overflight indicated small amount of sheen near ship, beach impacts spotty but heavy from Peak Island down to Naked Island. Very heavy (almost 100 percent coverage) gray to rainbow sheen with mousse between Naked and Eleanor Islands. Looked clean in channel up the western side of Knight Island (a pod of killer whales and sea otters and eagles were seen). No sign of any oil around the eastern side of Chenega Island up to Main Bay Salmon Hatchery.

0800-1130 *NRT/USCG:* USCG overflight indicated oil had reached beaches on all islands from northeastern side of Storey, Naked, Eleanor, Ingot, and Knight Islands down to the Bay of Isles area on Knight Island. Heavy oil slicks were found between Naked and Eleanor Islands, extending in a westerly direction out into Knight Island passage. Heavy oil impact on Smith and Little Smith Islands with moderate contamination on the eastern side of Green Island. A major clean-up mobilization was initiated to protect critical fishery resources in Eshamy Bay, Main Bay, Port San Juan (Sawmill Bay), and Esther Bay.

XXXX *EXXON:* Exxon had a third meeting (the first being March 25 and the second being March 27) with local fishermen and government officials to discuss protection of hatcheries and fisheries areas. Boom deployment at Sawmill, Esther, Eshamy, and Main Bays began.

0900 *USCG POLREP TEN:* State ADEC mobilized 5,000 feet of boom to protect Port San Juan.

XXAM *USNOAA:* Exxon was cooperating by providing several thousand feet of boom to protect salmon hatcheries.

-- *CFMC:* CDFU decided that it wouldn't wait for someone else to protect the valuable PWS salmon fishery. The spread of the oil threatened the survival of hundreds of millions of hatchery and wild-stock salmon fry. Early the morning of March 28, about a dozen fishing boats left Cordova for the fish hatchery at Main Bay, the Port Nellie Juan Hatchery at Sawmill Bay, and Eshamy Bay, the latter an important area for wild-stock salmon fry, where they worked all day to deploy boom provided by ADEC.

-- ADEC: The emphasis of operations had shifted to protection of the critical areas remaining in the path of the slick that had not already been impacted.  
ADEC and fishermen were mobilizing beach exclusion booming and cleanup capability in cooperation with Exxon and USCG.

-- ADFG: Fishermen and ADEC employees worked with booms and skiffs in an all-out, last-ditch effort to save the three hatcheries at Main Bay, Sawmill Bay (also known as Port San Juan Hatchery, or Armin F. Koernig (AFK) Hatchery), and Esther Island, the largest salmon hatchery in the world. Efforts were also extended to protect Eshamy Bay, site of an important setnet fishery.

0936 ADES: ADMVA named LTC Masker senior military representative of the department in support of the EXXON VALDEZ oil spill. Both AK ARNG and AK ANG units were established to provide air support and coordination of cleanup operations.  
Available air-transport equipment included one UV-18, one UH-60, one C-12, one CH-54, and two UH-1H. On standby were 2,500 gallon tankers, one 15-ton wrecker, one M-1008, one C-130, two nine-passenger vehicles, and one sedan.  
Kulis, the AK ANG base at Anchorage, was to begin a schedule of two trips per day to Valdez with variable returns, one departing Anchorage at 0900 and one departing at 1600.

XXXX EXXON: 847 additional 55-gallon drums of dispersants were received. 441 barrels had been sprayed; the remaining inventory was 1,633 barrels.

1000 NRT/USCG: Additional USCG PACAREA Strike Team equipment arrived at Valdez.

-- EXXON: The Coast Guard reported two additional PACAREA Strike Team members were being placed aboard the EXXON VALDEZ.

1010 NRT/USCG: Exxon requested use of dispersants and *in-situ* burning around Eleanor Island (Zone Three). ARRT considered dispersant use in this area inappropriate.

1030 NRT/USCG: USCGC Sedge informed FOSC that no oil was in Main or Eshamy Bays. Work crews were setting booms in both areas.  
PACAREA Strike Team reported 226,874 barrels transferred from EXXON VALDEZ to EXXON BATON ROUGE.

1120 NRT/USCG: ADEC approved *in-situ* burning permit for area around Eleanor Island.

XXXX SIMS: Dietrick told the press that, frankly, no one was really trying to recover oil now. "We're beyond that," he said. "All effort is now in the defense of very sensitive areas."

1200 NRT/USCG: Response management was reorganized formally as a steering committee consisting of USCG, ADEC, and Exxon.  
Major operations were mobilized to protect fishery resources in Eshamy Bay, Main Bay, Port San Juan, and Esther Bay.

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Weather: Small craft advisory. North winds to 25 knots with some stronger gusts to 40 knots. Winds decreasing to 20 knots this afternoon. Temperatures in the mid to upper twenties.

- **USCG POLREP TEN and USCGD 17:** A major spill response organization of Exxon, USCG, and state officials was established. The organization was three-tiered with a steering committee of USCG (RADM Nelson), ADEC (Commissioner Kelso), and Exxon Shipping Company (President Iarossi) at the top. An operational coordination committee was established and working which included the USCG, the state, local fishermen, and Exxon. The third tier was the on-scene operational forces.
- 1200 **USCG POLREP TEN:** Spill estimate remained approximately 250,000 barrels.
- 1200 **ADEC:** Weather had improved and wind quieted significantly where slick was located. Current estimate of product lost from EXXON VALDEZ was 232,000 barrels. The vessel still appeared to be leaking. Approximately 1,000 to 3,000 barrels of oil/water mix had been recovered.
- Slick was approximately 300 square miles; dimensions were 40 miles long and from three to 12 miles wide. The slick had moved rapidly and was still spreading. It was moving in a south-southwest direction and was expected to continue in that direction. The product had impacted Bligh, Smith, and Little Smith Islands, and the eastern shore of Naked, Knight, Eleanor and Ingot Islands. It was expected to impact more of Knight, Green, Latouche, Evans, and Farlington Islands.
- Flow through the pipeline had been decreased to approximately 800,000 barrels per day. Alyeska anticipated the terminal could store an additional seven-days flow at that reduced rate.
- 1212 **EXXON:** The SAT C-130 left Anchorage loaded with dispersants.
- 1230 **NRT/USCG:** An Exxon-chartered C-130 applied dispersants in areas of heavily concentrated oil. Minor discharge of oil from EXXON VALDEZ. FOSC authorized use of dispersants (at the scene of the grounding).
- 1230 **USFS:** John Knorr (USDA-FS), district ranger of Glacier Ranger District, Chugach National Forest, the forest district which covers the PWS area west of the tanker lanes, was in his office in Girdwood, Alaska, when he took a telephone call from the supervisor of Chugach National Forest. Knorr was being dispatched to Valdez as the FS's resource specialist to coordinate with the Incident Command Team. Though Knorr's Girdwood office was a one hour drive from Anchorage International Airport he was on a 1345 o'clock commercial flight from the airport to Valdez.
- 1251 **EXXON:** The MarkAir C-130 left Anchorage loaded with dispersants.
- 1300-1530 **USNOAA:** Afternoon overflight indicated oil was located in the same areas as the morning overflight. Slick north of Storey Island extended much farther west than previously observed. The southern extent of the slick now extended down to just off the southern tip of Knight Island on the east side. No oil had yet impacted Green Island.
- XXPM **EXXON:** Afternoon aerial surveillance indicated heavy concentration of oil to the northeast and northwest of Knight Island that would probably move southward down both sides of Knight Island in Zone Three.

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1300-1530 *NRT/USCG*: Exxon dispersant operation was conducted near vicinity of EXXON VALDEZ. Exxon reported excellent results. Dispersant operation was also conducted off eastern end of South Island.

-- *USCG POLREP ELEVEN*: Exxon dispersant operation was conducted in Zone One in immediate vicinity of EXXON VALDEZ. Exxon reported excellent results. One dispersant run was made on slick off of the eastern end of South Island. Results were not accurately observed by crew of aircraft.

-- *EXXON*: At CDR McCall's direction, the two C-130s sprayed near the T/V EXXON VALDEZ to disperse oil released when boom broke during the storm. Approximately 7,181 gallons (131 drums) were sprayed.

-- *PWSCA/ADEC*: 5,000 gallons of dispersants were applied in a Zone One area. Another 5,500 gallons were applied in the vicinity of the tanker, a Zone Two area. The EXXON VALDEZ and USCG personnel were hit by the spray. Application of dispersants in the Zone Two area requires state and USEPA approval and no request had been received by the state. The CG was investigating.

-- *USNOAA*: Dispersant application in area of EXXON VALDEZ seemed to work well on newly released oil.

1328 *EXXON*: EXXON BAYTOWN was instructed by Exxon to minimize dirty ballast before arrival to maximize cargo capacity.

1330 *ADEC*: One dispersant run was made near the leaking tanker. A burn was expected to be conducted today at the north end of Knight Island.

XXXX *USNOAA*: Burn trials in Herring Bay (northwest end of Knight Island) failed to ignite the weathered oil.

XXPM *EXXON*: Burn test at Eleanor Island was unsuccessful because of high water content in crude oil-water emulsion.

1330 *AOSC NOTE*: An ARRT teleconference was scheduled for this time. The AOSC has no information that it was held, however. No teleconference report was sent on the ARRT E-mail and the various agency reports perused for the day do not discuss such a meeting.

XXXX *PWSCA/ADEC*: SOSC Lamoreaux, in a memorandum to the USCG, requested certain safeguards in conjunction with approval of any additional use of dispersants in Zone One. These included a herring spotter to prevent the accidental spraying of any herring schools, a water-monitoring team to collect hydrocarbon data in the water column to evaluate the effectiveness of the application, radio communication on board dispersant-application aircraft, and the opportunity for federal and state observers to watch the applications from helicopters.

1400 *NRT/USCG*: FOSC opened Port of Valdez to vessel traffic. Vessels subject to Vessel Traffic Service (VTS) regulations would make daylight transits only. An 1,000-yard safety zone around the EXXON VALDEZ was imposed. Tank vessels inbound or outbound were required to have a two-tug escort to or from Bligh Reef. Vessels were directed to avoid any clean-up operations by 500 yards.

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-- *ADEC*: The USCG had tanker traffic lanes open with two tugs escorting each tanker through salvage area and ice.

XXXX *ADEC*: During water sampling at north and northeast ends of Smith Island, it was noticed that the oil appeared as large globules and brown particles in the water. At the northeast corner of Naked Island, there was a light sheen on the water. A black oil line was observed at the high-tide level at both Smith and Naked Islands.

XXXX *USNPS*: Dave Liebersbach, incident commander of the Interagency Type I ICT, arrived at the Valdez Airport with some of the experienced team members that he had assembled from USDOJ-BLM's Alaska Fire Service and USDA's Forest Service. The rest filtered into Valdez from around the state throughout the day (and on Wednesday), some by car and some by air. Liebersbach's core team included Dohn Wahl, safety officer (USBLM-AFS); Dixie Dies, information officer (USFS); Marv Robertson, planning section chief (BLM-AFS); Tom Goheen, operations section chief (USBLM-AFS); Don Fuller, logistics section chief [State of Alaska Division of Forestry (ADOFF)]; Ron Knowles, finance section chief (USFS, Tongass National Forest); Jim Ward, air operations director (US BLM-AFS); Joe Stam, operations sections chief (ADOFF); and Joe Ribar, technical specialist (BLM-AFS).

1500 *USFS*: Forest Ranger Knorr's jet landed at Valdez Airport where he rendezvoused with Liebersbach who had arrived virtually at the same time by air charter.

XXXX *USNPS*: Liebersbach, after his arrival, met with USDOJ's Bergmann and USCG at Exxon officials. Later in the day, Dies, Goheen, and Wahl met at the USCG MSO, Valdez, for a briefing.

1530 *USCG POLREP ELEVEN*: Exxon reported that wind-damaged boom which was surrounding the grounded vessel was being replaced.

XXXX *AOSC/CDFU*: The three fishing boats from Cordova that had reached Valdez during Sunday night's storm and had been waiting for instructions were sent by ADEC's representative not to boom off streams, but to go boom off the EXXON VALDEZ.

1600 *NRT/USCG*: FOSC McCall held a teleconference with the Alaska State Legislature.

1600 *ADES*: ADES was to have opened its 24-hour EOC at Valdez. Manned by ADES, AK ANG, and AK ARNG, its purpose was to interface with other state, federal, and civilian agencies, and coordinate military mission support. NG personnel were billeted at the Valdez Armory and meals were contracted for at a Valdez eating establishment.

XXXX *ADN*: The State of Alaska opened a criminal investigation to determine whether anyone involved in the grounding of the EXXON VALDEZ should face prosecution. State AG Doug Baily said that a lawsuit against Exxon or Alyeska Pipeline was not planned at this time. The state, however, wanted to put together information that would "have a rapid handle on it for the purpose of litigation."

XXXX *USEPA*: USEPA's Rogowski again spent time researching oil spill laws and the Trans-Alaska Pipeline Act. Bob Courson of the agency started calling agency offices

around the country looking for marine biologists with coastal field experience and specific experience in damage assessment. Courson was also among those reviewing who from EPA's Region 10 might go to Alaska.

- 1700 *USCG POLREP ELEVEN*: Protective booms had been deployed across Main Bay. Booms were being transported for deployment to sensitive areas west of Knight Island as identified by ADEC and local fishermen's groups.
- 1730 *NRT/USCG*: U.S. Secretary of Transportation Skinner, U.S. Administrator of EPA Reilly, and USCG Commandant ADM Yost arrived to assess clean-up and oil transfer operations.
- 1730-2230 *USCG POLREP ELEVEN*: Secretary of Transportation official party was in Valdez to assess cleanup and lightering operations. After conducting overflight, they departed for Anchorage.
- 1800 *NRT/USCG*: 274,000 barrels of oil transferred from the vessel EXXON VALDEZ at a transfer rate of 3,624 barrels per hour. Soundings indicated vessel was still hard aground between the Nos. Two starboard (2S) and Three starboard (3S) tank areas.
- *EXXON*: 274,000 barrels now transferred to the EXXON BATON ROUGE, an average of 7,000 barrels per hour. Six pumps operating, including three USCG Strike Team pumps.
- 1800 *USCG POLREP ELEVEN*: Cargo levels in the EXXON VALDEZ tanks indicated that as the vessel was lightered, oil was not flowing between tanks. Upper tank bulkheads appeared intact at this time.  
Equipment currently deployed by Exxon: five landing craft, 33 contract vessels, five tugs, barge and tug (skimmer deployment), tank barge for skimmer operations, seven skimmers plus USCG barrier skimmer, 11,800 feet of various boom.  
Exxon was mobilizing equipment from Houston and Portland. The USCG was mobilizing the entire inventory of high-seas boom (8,000 feet) in Alaska.  
Weather: Small craft advisory. Winds north at 25 knots, diminishing to 15 knots Wednesday afternoon. Temperature upper twenties.
- 1930 *EXXON*: Divers inspected under and around the EXXON BATON ROUGE for pinnacles to ensure there would be no damage as the vessel became lower in water from taking on additional cargo.
- XXXX *USNOAA*: Fuel for the helicopters and planes was running short at the airport. There was concern flights might have to be curtailed until the problem was solved.
- 2000 *USNOAA*: Evening science meeting was attended by more than 40 people from all the various agencies and contractors involved in the spill response. Teal, Exxon's representative, indicated surveillance and tracking team arrived today and would be conducting ultra-violet and infra-red surveys.
- XXXX *USNOAA*: Nearly 1,000 citizens from Cordova attended a town meeting where they heard a panel that included Commissioner Collingsworth and three biologists from ADFG, ADEC's Colleen Burgh, USCG FOSC CDR McCall, Exxon's Cornett, Michael Zimmerman of USNOAA, and someone from the Prince William Sound Aquaculture Corporation (PWSAC). Most of the questions were addressed to Exxon, Alyeska, and the USCG. The citizens were upset about the spill and the meeting was

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frequently interrupted with yelling and challenges. The USCG received very heavy criticism for the incident and demands were made for very close control of all tanker traffic from now on.

Exxon announced a claims office had been set up and that reasonable claims would be settled quickly, much to the disbelief of the citizens. ADFG announced the formation of a Fisheries Management Group.

-- *McCLINTOCK:* A town meeting in Cordova was attended by 2,000 people. Already, since the EXXON VALDEZ incident, the atmosphere had changed from the initial reaction to the spill of wanting to do something positive to frustration and anger. CDFU and others in the town had been calling Alyeska and Exxon and receiving no response. The residents had become frustrated and then angry. It was at this town meeting when their anger was expressed.

*[AOSC NOTE: According to McClintock, this anger changed to despair when oil started showing up in the waters and on the beaches. Then, creative efforts took off and wildlife-rescue and oil-response efforts began.]*

2100 *EXXON:* Dan Paul, Exxon Shipping Company human resources manager, in a meeting of the Operations Coordination Committee (Exxon, USCG, and ADEC) requested emergency permission to use dispersants in Zone Three during the next two days to prevent the spill from moving southward. Exxon requested a response by midnight so that operations could begin at first light Wednesday morning. CDR Rome replied that the request needed to be made in writing.

2100 *ADEC:* Aboard the EXXON VALDEZ, ADEC staffer Dick McKean reported that the vessel's heading was 293.7 degrees, which was about one degree change. No heavy black oil could be seen leaking from the tanker although occasional bursts of rainbow sheen were observed.

2200 *EXXON:* EXXON BAYTOWN received orders to lighter 100,000-150,000 barrels from EXXON VALDEZ.

2230 *USCG POLREP ELEVEN:* 335 USCG personnel on scene. Federal personnel numbered over 100 and included personnel from USDOJ, USDA, NTSB, USEPA, USFAA, USDOC, NAVSEA SUPSALV, and USAF. Colin Hendry of the Canadian CG was also present.

XXXX *ADEC:* Visual observations of the spill area from overflights indicated that the slick had traveled 15 miles since yesterday. The furthest southwest edge of the slick now extended 52 miles from Bligh Reef.

XXXX *ADN:* Capt. Joseph Hazelwood, after consulting with his lawyer, refused to cooperate in an investigation by the NTSB and flew out of Valdez. (That Hazelwood had left Valdez was not known by Alaska state investigators and Exxon company attorneys until March 31.)

XXXX *ADN:* Senator Murkowski was in Alaska. A FAA plane, dispatched from the Midwest, had picked up him and his wife up in and brought them to Alaska.

XXXX *USCG POLREP THIRTY-FIVE:* Five skimmer systems were operating and the cumulative total recovered was 3,000 barrels of oil, or 725 for that day.

DAY FIVE (Tuesday, March 28)

XXXX *AV WEEK:* Operations at the day-old temporary FAA tower at Valdez airport totalled 687.

XXXX *ADES:* The number of flight arrivals or departures at Valdez Airport peaked at 687. The AK ARNG CH-54 flew two missions carrying cargo for Alyeska. The AK ANG C-12 flew four missions and the C-130 flew two missions.

2400 *SIMS:* Another 80 fishing vessels (in addition to the 15 deployed yesterday) were headed into PWS to deploy floating containment booms.

2400 *EXXON:* The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 376: 47 Exxon employees on-site, 216 contract personnel, 75 contract fishing personnel in Valdez, and an estimated 38 contract fishing personnel in Cordova.

289 tons of air cargo arrived today including portable pumps, dispersants, and steel weld rods. Seventy-one vessels were deployed as were 34,000 boom feet, seven skimmers, and an unknown number of aircraft.

DAY FIVE (Tuesday, March 28)

- 10 -

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

WEDNESDAY, MARCH 29, 1989

DAY SIX

## Approximate Alaska Local Time

0618	U.S.A.F: Valdez sunrise.
1923	U.S.A.F: Valdez sunset.
0225	EXXON: Eighth pump started. Various pumps had been used due to pump maintenance, hose leaks, repairs, and shifts between tanks.
0500	EXXON: 355,000 barrels had been transferred to the EXXON BATON ROUGE, an average of 7,700 barrels per hour. Seven pumps were on line, more requested.
XXAM	EXXON: Engineers began preparations on-deck for sealing deck openings with steel blanks for refloating operation.
XXAM	USNPS: By morning the core team members of the USBLM/USFS ICT had concluded that no one in Valdez wanted their services. Not yet released from duty, however, they remained in Valdez to collect the arriving members of their team and to see what would develop.
0800	CFMC: The Glacier Queen left Valdez carrying Exxon cleanup workers to the heavily oiled east side of Knight Island. The trip there took four hours. That left four hours for work in order to return to shore at 2000 hours.
0800	ADEC: The slick covered 575 square miles, excluding islands. It continued to move and spread south-southwest.
XXAM	USNOAA: Morning overflight indicated, in addition to the already reported oil, a patch of oil at the entrance to Montague Strait, south of Latouche Island.
XXAM	PWSCA/ADEC: Exxon's early morning surveillance flight indicated heavy deposits of oil over Knight Island Passage covering the area south of a line due west from Point Eleanor to Point Nowell and also in the area south of Naked Island between Eleanor and Smith Islands south to a line due west of Seal Rock.
0845	NRT/USCG: U.S. Transportation Secretary Skinner, USEPA Administrator Reilly, USCG Commandant ADM Yost, Alaska U.S. Senator Murkowski, and Congressional staffers viewed the spill area from USCG overflight. Having reviewed clean-up and oil transfer operations, they arrived in Valdez to meet with FOSC McCall.
0900	ADEC: Current weather at site of the EXXON VALDEZ was winds 18-22 mph, northeast winds, seas three-five feet.
0900	ADEC: Boom around the EXXON VALDEZ had broken loose during the night and was not yet been repaired.
0900	USCG POLREP TWELVE: USCGC Sedge and PACAREA Strike Team were operating a USCG barrier skimmer system 1.5 miles off of Eleanor Point.

DAY SIX (Wednesday, March 29)

XXXX

CFMC: ADEC Commissioner Dennis Kelso recommended a new command structure for the spill response: a "troika" of himself, Exxon's Iarossi, and RADM Nelson, the USCG's commander for Alaska. This arrangement combined the USCG, which nominally was directing the spill response but did not want to federalize the cleanup and thus be required to use federal money; Exxon, which was the party responsible for the spill and its cleanup, as well as paying for it; and ADEC, which was concerned that both of the other parties were more worried about not spending money than cleaning up the spill and protecting Alaska's natural resources.

0900

USCG POLREP TWELVE: Organization of response efforts was set up as follows:

**STEERING COMMITTEE**

**USCG  
ADEC  
EXXON**

**OPERATIONS COORDINATING COMMITTEE**

**USCG (ARRT/FEDERAL AGENCIES)  
ADEC, ADES  
LOCAL FISHERIES**

**ON-SCENE WORKING FORCES**

**USCG  
STATE  
EXXON  
LOCAL**

*[AOSC NOTE: An apparent difference in this organizational table between what was talked about Sunday and announced Tuesday is that Exxon is not listed as a member of the Operations Coordinating Committee. Whether deliberate or an oversight is not known.]*

0900

EXXON: Iarossi hand delivered a written request to use dispersants in Zone Three to CDR McCall. Exxon's Borgen gave copies to SOSC Lamoreaux (ADEC), Bruce Baker (ADFG), and USEPA by FAX.

--

PWSCA/ADEC: Exxon submitted a formal written request from Iarossi to CDR McCall to apply dispersants in (Zone Three) at a rate of approximately 5-10 gallons per acre. Exxon noted agreement to control the operation by a spotter plane with a group consisting of an Exxon representative, USCG representative, and a herring-run observer provided by the state.

XXXX

PWSCA/ADEC: After reviewing Exxon's written request to apply dispersants, SOSC Lamoreaux sent a memorandum to the USCG which stated that because Exxon had failed to demonstrate its ability to accurately and effectively target the dispersant Corexit 9527 in Zone One, the state could not approve dispersant application in Zone Three.

The environmental sensitivity of shoreline and nearshore habitats in Zone Three made it essential that dispersant application in these areas be accurately targeted and effective in achieving dispersal objectives, Lamoreaux indicated. He said that it was the state's position that this capability must be demonstrated in Zone One before the state could concur with application in Zone Three.

DAY SIX (Wednesday, March 29)



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ADEC, ADES

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DAY SIX (Wednesday, March 29)

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His memorandum also indicated that no post-application water-quality data had been provided to the state by Exxon to describe concentrations of hydrocarbons at various water depths following dispersant application in the EXXON VALDEZ incident. Lamoreaux indicated that the state would cooperate in monitoring another test in Zone One.

- XXAM *NAVSEA (SUPSALV)*: The two Navy SUPSALV skimmers, assembled late Tuesday night, were deployed this morning.
- 0930 *USCG POLREP TWELVE*: Transportation Secretary Skinner and ADM Yost met in Valdez with the FOSC (CDR McCall), Senator Murkowski, advisors (federal, state, and local officials), and fishermen's union representatives. The delegation was to return to Washington this afternoon to brief the President.
- 0930 *USCG POLREP TWELVE*: Oil movement overnight was in a southward direction. General coverage resembled inverted teardrop shape which surrounded Naked Island at its widest and northernmost point narrowing down around both sides of Knight Island to the Discovery Point area on the eastern side and Drier Bay on the western side. Heavy concentrations of oil were being skimmed in Herring Bay area.  
No birds or marine mammals had been received by the cleaning centers.  
Spill estimate remained approximately 250,000 barrels of crude oil.
- 1000 *USCG POLREP TWELVE*: Hatchery protective booming operations were progressing. The Esther Hatchery area was boomed. Light sheen had been sighted in the Cape San Juan area. Booms and skimmers were being deployed to that area. A connex box of equipment was being transported to the Sawmill Bay area; 1700 feet of boom was being deployed at Sawmill. Main Bay was boomed. Eshamy Bay was deflective boomed.
- 1036 *EXXON*: EXXON SAN FRANCISCO was all fast Berth No. Five, AMT, Valdez, to discharge dirty ballast.
- XXAM *ADEC*: An ADEC environmental field officer on board the EXXON VALDEZ observed no leakage of black oil though occasional bursts of rainbow-colored sheen.
- XXAM *USNPS*: Anne Castellina, superintendent of Kenai Fjords National Park (KFNP), headquartered in Seward, called David B. Ames, USDO-I-NPS acting director for the Alaska Regional Office in Anchorage. Ames approved a request from Castellina to hire an additional ranger who would be stationed at Nuka Bay, almost 80 miles southwest of Seward on the outer coast of the Kenai Peninsula and near the western boundary of Kenai Fjords National Park, to monitor any impact from the oil spill.
- 1200 *USCG POLREP TWELVE*: Sawmill Bay area was assisting in boom deployment.  
*[AOSC NOTE: The reference to the Sawmill Bay area assisting in boom deployment appears to be a reference to the people of the village of Chenega Bay. Tsunamis generated by the 1964 Good Friday earthquake destroyed the village of Chenega Bay on Chenega Island and in 1984 the community was reestablished in Crab Bay, a small indentation on the north shore of Sawmill Bay, on Evans Island. The village shares Sawmill Bay with the fish hatchery at Port San Juan, which is at the southwest end of Sawmill Bay.]*  
*McClintock points out in her study of oiled communities for the AOSC, that oil which might have been skimmed from the water was not kept*

DAY SIX (Wednesday, March 29)

*off the beaches on the north side of Evans Island, thereby polluting the subsistence grounds of Chenega Bay. Additionally, in April, workers hired from the village were deployed by Exxon's contractor, VECO, to clean Green Island while lacking proper resources to clean oil washed ashore in their own backyards.]*

- 1200 **EXXON:** 390,000 barrels had been transferred to the EXXON BATON ROUGE. Seven pumps were operating.
- 1200 **NRT/USCG:** At Valdez site, two dispersant aircraft stood ready for operations. An Aerostar aircraft augmented command and control. Five landing craft arrived for beach cleanup. Seven skimmers operated around Knight Island. Over 8,000 feet of additional boom was enroute. Skimmers removed over 5,000 barrels of oil.  
Over 390,000 barrels of oil transferred off EXXON VALDEZ. Present pumping rate was 9,000 barrels per hour.
- XXXX **USFWS:** No dead otters observed. No otters or birds had been brought into rehabilitation centers in Valdez. Otters were observed in oil slick at Knight Island and in oiled area at Smith Island and sea lions observed in oiled areas at Smith and Seal Islands. Oiled seabirds sighted at Smith Island. IBRC had four experts, Sea World had two experts, and USFWS had 15 personnel on site.
- 1230 **EXXON:** Iarossi learned that the ARRT was not acting on the dispersant-use request. Exxon learned later that the state declined to approve the use of dispersants in Zone Three.
- 1300-1530 **USCG POLREP ELEVEN:** Exxon dispersant operation was conducted in Zone One in immediate vicinity of EXXON VALDEZ. Exxon reported excellent results. One dispersant run was made on slick off of the eastern end of South Island. Results were not accurately observed by crew of aircraft.
- 1330 **USNOAA:** The ARRT met. A new organizational structure was coordinating the spill response: USCG, Exxon, and ADEC. All fish hatcheries were protected with boom with exception of the Port San Juan Hatchery which felt it didn't need protection at this time. Seven skimmers were working around Eleanor Island. Dispersants were no longer considered feasible for use at this spill. A naval architect had inspected the EXXON VALDEZ and was more comfortable with the integrity of the ship.
- **USCG-ARRT:** Primary attendees at the ARRT teleconference were USEPA-Lautenberger, USDOJ-Gates, USDOC-Becker, ADEC-Kent, USDA-Paul, USCGD17-LCDR Tiernan and LT Carey, and USCG MSO Valdez-Capt. Haines, CDR McCall, and CDR Rome. Other agencies represented were USDOJ-FWS and BLM, USDOC-NMFS and NWS, U.S. Department of Defense-Army Corps of Engineers (USDOD-ACOE), and ADFG.  
The three-tiered command and control system discussed in POLREP Ten (at 1200 hours on March 28) was in place. The FOSC determined no further use of dispersants unless there was a discharge from the EXXON VALDEZ. *In-situ* burning remained an option although one attempted burn near Ingot Island was unsuccessful due to the makeup of the oil.  
Major concerns of the ARRT were identified as establishing a beach cleanup strategy (a subcommittee of the Operations Committee was to coordinate this effort).

DAY SIX (Wednesday, March 29)

and when new projections on oil movement would be available (NOAA would be providing this information).

1400 *USNPS*: Bill Lawrence, USNPS's environmental compliance officer in the Alaska Regional Office, participated in the ARRT teleconference. Afterwards, he went to see Ames, his acting regional director. Together they discussed what Ames had heard from Castellina and what Lawrence had picked up at the ARRT teleconference about the uncertainty of the oil hitting the coast of KFNP.

Ames had talked earlier to Richard G. O'Guin, chief of the Protection and Ranger Activities Division at the USNPS Regional Office, and had heard the suggestion from O'Guin that the NPS send an ICT to KFNP. The spill appeared to be a classic case for ICT use, even though it had not been used for an oil spill before. Coupled with his conversations with Castellina and Lawrence, Ames decided to call in an ICT to help the NPS response to the oil spill.

XXPM *USNPS*: O'Guin acted on the decision to call in an ICT and coordinated the USNPS Regional Office request through the Interagency Fire Center in Boise, Idaho, and the NPS Ranger Activities Division at NPS headquarters in Washington, D.C. By this time, the Alaska Fire Service representative at Boise was aware that a Type I team that was in Valdez might be available.

O'Guin telephoned Castellina to advise her that an ICT was expected to be demobilized from Valdez and could be available to her. Castellina concurred.

XXXX *USEPA*: USEPA Region 10 had not yet decided who would be sent to Alaska and also did not yet have any applications for the damage-assessment biologists.

1600 *USNPS*: KFNP Superintendent Castellina and Peter Fitzmaurice, chief ranger, met with Seward municipal officials at an emergency meeting called at the Seward City Hall.

XXXX *ADFG*: Oil, moving out of Prince William Sound in a southwest direction, neared Resurrection Bay and Seward on the south shore of the Kenai Peninsula. A "local emergency" was declared by the City of Seward.

-- *ADN*: The City of Seward declared a local emergency and prepared to marshall people, money, and equipment to corral and skim the oil if it swung into Resurrection Bay.

XXXX *ADN*: Two PWS fishermen who owned limited-entry fishing permits filed the first of an expected avalanche of lawsuits over the Valdez oil spill in state Superior Court at Anchorage, Alaska.

XXXX *USNOAA*: Beach surveys were conducted on Naked, Eleanor, Knight, Green and Montague Islands. Shoreline contamination was highly variable with many pockets of very heavily oiled rocky shores and beaches.

XXXX *EXXON*: Further attempts to burn crude oil-water emulsion were unsuccessful.

-- *USCG POLREP TWELVE*: Burning operations in area of Disc Island were not successful due to ignition problems of weathered oil.

XXXX *USCG POLREP TWELVE*: Additional resources moving in included a mobile command post, additional skimmers, sorbents, boom, communications gear, C-130s

DAY SIX (Wednesday, March 29)

from North Slope and Kodiak to transport boom, C-5 from Houston to Anchorage, and floating camps for beach cleanup crews.

- 1728 *EXXON*: *EXXON SAN FRANCISCO* was underway from Berth No. Five to lighter the *EXXON VALDEZ*.
- 1800 *EXXON*: 451,000 barrels now transferred to the *EXXON BATON ROUGE*.
- 1922 *EXXON*: *EXXON SAN FRANCISCO* was ordered to go to anchor and wait for first light.
- XXXX *USNOAA*: Evening resource meeting took note that overflight maps don't show oil where observers don't look, though it might be there. *USNMFS* observed 300-400 sea lions at The Needle and twice that many at Point Erlington. They recommended that Exxon protect The Needle with deflection boom. However, Exxon explained that the boom required was not available and that due to currents it would be difficult to use deflection booms in that area. *USFWS* reported several bird species in the oiled area east of Seal Island.
- 2000 *USCG POLREP THIRTEEN*: Interior bulkheads of the *EXXON VALDEZ* between cargo tanks Two center (2C) and Two starboard (2S) appeared to have ruptured as the level of oil in 2S had increased overnight in spite of nearly complete pump-out of oil yesterday. Respirators were being used by *USCG* personnel during pumping operations. Some tanks were showing atmospheres within explosive limits. The inert gas system was operational and had been pressured up to five PSI to keep these atmospheres within acceptable limits.
- 2000 *NRT/USCG*: Total of 442,988 barrels of oil -- 45 percent of cargo -- now removed from *EXXON VALDEZ*. *USNOAA* review of recent overflights indicated oil was beginning a counterclockwise rotation, moving from Naked Island, down western side of Knight Island, and up eastern side of Knight Island and western side of Green Island.  
[See AOSC NOTE below.]
- 2042 *EXXON*: Cargo discharging to the *EXXON BATON ROUGE* was finished. *EXXON BATON ROUGE* final cargo volume: 462,015 barrels (GSV).  
[AOSC NOTE: The initial load of the *EXXON VALDEZ* was 1,263,000 barrels. Exxon's own statistics are that 258,000 barrels were spilled, leaving 1,005,000 barrels to be lightered. While not significantly different, Exxon provided three different figures on the cargo lightered to the *EXXON BATON ROUGE* in the chronology provided to the AOSC: (a) *EXXON BATON ROUGE* final cargo volume 462,015 barrels; (b) lightered about 461,686 barrels; (c) lightered to *EXXON BATON ROUGE* 462,000 barrels. This latter figure could be either of the preceding numbers rounded.  
Adopting the rounded figure just previous, it appears that 46 percent of the *EXXON VALDEZ* cargo not spilled, based on Exxon's figures, was transferred to the *EXXON BATON ROUGE*. If one uses what was on March 30 the *USCG* estimate of the spill, the figure would be slightly lower. At that time the *USCG* was estimating the spill at 250,000 barrels. This would have left initially 1,013,000 barrels to be lightered. Thus 462,000 barrels lightered would have been 45.6 percent of the cargo removed; 442,988 barrels would have been 43.7 percent removed.]

DAY SIX (Wednesday, March 29)

2100 *USNOAA*: The Beach Cleanup Committee limited its role to cleanup priorities, not protection. Criteria, including presence of fish streams, private property, high subsistence usage, smolt release area, bird rookeries, marine mammal haulouts and pupping areas, herring spawning areas, eel grass, state marine parks, tourist areas, and historical cultural areas, were to be used in assigning cleanup priorities to heavily oiled areas.

2130 *NRT/USCG*: EXXON BATON ROUGE ceased taking on EXXON VALDEZ cargo. EXXON SAN FRANCISCO was enroute to resume operations.

2200 *EXXON*: Lightering hoses disconnected.

2230 *EXXON*: Began letting go of EXXON BATON ROUGE.

2256 *EXXON*: Last line from EXXON BATON ROUGE.

XXXX *USNPS*: The Interagency ICT had remained in Valdez for the day without being drawn into the activities of any of the agencies in Valdez that were responding to the oil spill. Exxon's decision to house cleanup workers on barges and boats eliminated the need for an organization to set up on-shore camps. While Exxon might have used the ICT elsewhere, it chose instead simply to supplement its day-to-day operations to deal with the spill. Other organizations (including Chugach National Forest, USFWS, USCG, and the State of Alaska) that might have taken advantage of the ICT's expertise for other activities had, by this time, already activated their own in-place systems for dealing with emergencies.

The evening of March 29, Liebersbach's ICT was released from Valdez. At the same time, it was reassigned to Seward to assist KFNP's response to the oil spill.

2300 *USNPS*: The ICT left Valdez for Anchorage where they intended to meet with USNPS regional staff before going on to Seward.

2312 *EXXON*: EXXON BATON ROUGE was clear.

2318 *EXXON*: Dive-boat Inspector was alongside to survey port side of EXXON VALDEZ hull.

XXXX *ADEC*: Visual observations during overflight confirmed that the farthest southwest edge of the slick had not advanced beyond yesterday's 52 miles from Bligh Reef.

2330 *ADES*: ADES was reviewing tentative needs for staffing and equipping the State EOC in Valdez. It was looking at pulling together an operation of state agencies that included itself, ADMVA, ADEC, ADFG, ADOA (administration), ADOL (labor), ADHSS (health and social services), ADPS (public safety), the Governor's Office, Alaska Division of Tourism, and the ALIO (legislative information office). Other agencies anticipated to be involved included the federal USCG, USDOD-ACOE, USEPA, USDA-FS, USDOC-NOAA, and FAA, as well as the Valdez Harbormaster, the oil industry, fishing associations, and other civilian groups.

In its conceptual organizational table, the EOC was divided into current operations, plans, logistics, administration/fiscal, legal, communications, public affairs, and interagency liaison.

DAY SIX (Wednesday, March 29)

XXXX *USCG POLREP THIRTY-FIVE:* Seven skimmers were operating and the cumulative total recovered was 5-6,000 barrels.

XXXX *ADES:* Flights into and out of Valdez airport were down to 579 from what was to prove a 15-day peak of 687 the day before. The AK ARNG CH-54 flew two missions carrying 11,500 pounds of cargo for ADEC while the AK ANG C-130 carried 63,400 pounds in five missions.

2400 *EXXON:* The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 447: 53 Exxon employees on-site, 277 contract personnel, 78 contract fishing personnel in Valdez, and an estimated 39 contract fishing personnel in Cordova.

Twenty-four tons of air cargo had arrived this day including portable pumps and beach cleanup equipment. Eighty-two vessels were deployed as were 71,000 boom feet, 12 skimmers, and an unknown number of aircraft.

DAY SIX (Wednesday, March 29)



# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

THURSDAY, MARCH 30, 1989  
DAY SEVEN

## Approximate Alaska Local Time

0615      *U.S.A.F.*: Valdez sunrise.  
1925      *U.S.A.F.*: Valdez sunset.

XXXX      *NRT/USCG*: Exxon reported 7,537 barrels of oil recovered. USNOAA estimated that 30 to 40 percent of the spilled oil had evaporated.  
            The oil spill had passed Montague Island and Latouche Island and was proceeding westerly into the Gulf of Alaska (GOA).

XXXX      *ADN*: The NTSB announced that the captain of the tanker EXXON VALDEZ was too drunk to legally operate a ship when his blood was sampled nine hours after his tanker ran aground. Because of the wait in collecting samples, the NTSB could not say if the captain was legally under the influence of alcohol when the EXXON VALDEZ became impaled on a charted underwater reef.

XXXX      *ADN and FDNM*: EXXON VALDEZ Capt. Joseph Hazelwood was fired by Exxon Shipping Company in a telex sent to his Huntington, NY, home. Exxon and USCG officials said they did not know Hazelwood's whereabouts.

0330      *EXXON*: The EXXON BAYTOWN arrived Cape Hinchinbrook.

0410      *EXXON*: Forty drums of diesel oil were delivered for pumps.

0434      *EXXON*: EXXON SAN FRANCISCO was underway from Knowles Head with Pilot Eide.

0548      *EXXON*: Divers reported hold in forepeak of EXXON VALDEZ was leaking oil.

0606      *EXXON*: EXXON BAYTOWN anchored Knowles Head.

XXXX      *AV WEEK*: The FAA issued a special aviation regulation establishing three areas of special traffic over PWS that covered 2,677 square miles. To enter the specially regulated airspace over the sound, pilots must call the USCG Cutter Rush. The controllers were using the ship's air search radar to keep an eye on the traffic.

0759      *EXXON*: EXXON SAN FRANCISCO off EXXON VALDEZ.

0800      *NRT/USCG*: Oil concentrations moved south seven to eight miles overnight, extending to the Montague Strait area near the southern tip of Montague Island and eastern side of Latouche Island. Oil remained concentrated in center of Montague Strait. Green Island was surrounded by oil. Heavy concentrations of oil remained in the area southeast of Naked Island, through the Eleanor and Ingot Island areas, and down western side of Knight Island.  
            M/V Crystal Star (130 feet) was set up as Exxon floating command center.

DAY SEVEN (Thursday, March 30)

0800

**USCG POLREP FOURTEEN:** Spill estimate remained 250,000 barrels. The U.S. Navy MARCO skimmers were operating in open water areas. Protective booming had been accomplished in Sawmill Bay (Port San Juan area). Additional boom was enroute to Eshamy Bay. Boom was deployed at Main Bay and Esther Bay. Three Alyeska skimmers were operating in Herring Bay area.

5,000 barrels of oil had been recovered by mechanical means.

Dispersant use was no longer considered by Exxon. Two dispersant aircraft were standing by loaded at Anchorage in event of additional discharge from the T/V **EXXON VALDEZ**.

335 USCG personnel and 300 local workers were involved; 109 personnel from other federal agencies were on scene. Sixty-five contract vessels (20 feet to 140 feet) were deployed or involved in logistics.

Media interest remained high. It was estimated that the news center to date had handled well over 1,000 calls. Reports from the phone company indicated that as many as several thousand phone calls had not made it into Valdez due to inadequate phone trunks.

**Weather:** Current winds were northeast at five knots, seas to six feet, temperature lows in the teens.

Oil was in the area of a sea lion rookery located between Montague and Knight Islands.

Exxon stated it was transporting in as much hard barrier boom from the Lower 48 as it could locate but expressed concern over draining reserve stocks for Lower 48 response if needed.

The Alaska State Marine Ferry Aurora was to be chartered by Exxon to serve as floating camp for barge cleanup operations and staging area.

Exxon was working with ESSO of Canada to plan possible use of "Tops" burner currently being used on barge in Tuktoyuktuk. Its flare burner would have much higher throughput than the two Saacke burners currently on scene (at the AMT Valdez).

XXXX

**USNOAA:** The morning overflight revealed the oil had dispersed quite a bit. It was spread out into thinner sheens and was more widely scattered. Many gray and rainbow sheens were evident. The eastern edge of the slick was approximately abeam of Smith Island directly north of middle Montague Island. The southern extent was around the end of Latouche Island and to the west. Sheens with streamers of mousse were across the mouth of Knight Island Passage but had not penetrated the passage. Green Island now had heavy concentrations of mousse just offshore to the north and streamers of gray sheen with mousse. About 30-50 percent of birds on the rocks between Green and Smith Islands appeared oiled.

XXXX

**ADEC:** Visual inspection by overflight verified four small operational skimmers in addition to one USCG skimmer which was recovering 700 barrels per hour near the north end of Knight Island. Exxon did not have communications with most vessels, making verification difficult. Absorbent boom deployed at the northern tip of Knight Island was being filled.

A "Super-Sucker" (vacuum) skimming vessel was en route to Valdez by truck from Prudhoe Bay.

XXXX

**USFWS:** Five boats were to be deployed for bird cleaning on the boats. Sea otter and seabirds had been observed in oiled areas at Green Island and Applegate Rock. No dead otters were observed and none captured. Gulls, murres and other pelagic birds; scoter, mergansers, goldeneyes, and other sea ducks were associated with oil shoreline areas.

DAY SEVEN (Thursday, March 30)

0830 *EXXON*: First line EXXON SAN FRANCISCO - EXXON VALDEZ.

0900 *EXXON*: Total volume remaining aboard EXXON VALDEZ was 556.098 barrels; lightered, about 461.686 barrels.

0900 *NRT/USCG*: FOSC authorized three USEPA members to assist Exxon in planning for beach cleanup.

0915 *NRT/USCG*: USCG transportable communications center to handle USCG air traffic communications arrived from Sacramento, Calif.

1000 *NRT/USCG*: Oil transfer from EXXON VALDEZ totaled over 447,000 barrels.

1100 *NRT/USCG*: EXXON SAN FRANCISCO took over transfer operations from EXXON BATON ROUGE. Divers in the water conducted additional surveys.

1100 *USNPS*: At the USNPS Alaska Regional Headquarters in Anchorage, the ICT met with Ames, Lawrence, and others. Ames charged the ICT with coordinating efforts to protect the Kenai Fjords coastline and wildlife from the approaching oil. Duties would include monitoring of park resources and documenting pre-spill and post-spill conditions.

The ICT would report to the park superintendent and through her to the NPS Alaska Regional Office and USDOJ's regional environmental officer.

The information the USNPS had from USNOAA was that chances were not high that the oil would reach KFNP. Winds were the most important variable. Oil would have to move out of PWS, into the main GOA current, and then a shift of wind would be required to take the oil into the park.

Liebersbach requested and received approval to add to his team a support dispatcher, situation unit leader, and meteorologist. They were: Lindsey Lien, support dispatcher (USBLM-AFS); Blair Young, situation unit leader (BLM-AFS); and Craig Bauer, meteorologist (USDOC-NWS under contract to BLM-AFS).

1130 *USCG POLREP FOURTEEN*: Plans were finalized to coordinate release of chartlets locating oil concentrations between all involved groups (when possible) and to ensure that all agency and group press releases were passed to each respective command center.

1136 *EXXON*: EXXON SAN FRANCISCO all fast.

XXXX *ADEC*: The Steering Committee decided to establish a committee to plan for the massive effort expected for shoreline and islands cleanup. The focus would shift to beach cleanup after in-water efforts were completed. Present efforts were focused on protecting sensitive areas, offloading the tanker, preventing existing spills, and dealing with the slick in the water.

XXXX *ADEC*: The T/V EXXON VALDEZ was leaking at an unknown rate and had been boomed for containment. The EXXON VALDEZ had shown some indication of instability at it was lightened by offloading oil.

XXXX *USEPA*: The National Response Team and USEPA's Incident Coordination Team held their second meeting on the EXXON VALDEZ incident.

DAY SEVEN (Thursday, March 30)

1200 ADEC: Current weather clear and sunny, north-northeast winds 20-30 mph, seas three-six feet.

1200 USCG POLREP FOURTEEN: Burning possibilities lessened although efforts were still being made to deploy burn boom to capture burnable quantities. Exxon experts reported oil must be one-two mm. thick to ignite.

1245 USCG POLREP FOURTEEN: Seas five-six feet prevented delivery of gas to USCGC Sedge.

1300 NRT/USCG: Vice Admiral (VADM) Clyde Robbins, Commander USCG PACAREA, and Senator Lautenberg arrived in Valdez.

1300 USCG POLREP FOURTEEN: Expenditures under Sec. 311(k) of the Clean Water Act, which provides a fund for federal responses to oil spills, were \$868,904.

1330 EXXON: First lightering hose connected.

1330 USNOAA: ARRT meeting was held. The FOSC was considering opening a command post in Seward should it be warranted. Thirteen skimmers were deployed and four were being kept as a contingency around the EXXON VALDEZ. The state and USEPA were disappointed in Exxon's refusal to accept offers of equipment from around the world.

-- ADEC: At ARRT meeting, USEPA and ADEC each expressed the sense that Exxon was purposely "dragging its feet" in cleanup and appeared to be willing to wait until oil reached beaches to clean it up.

-- USCG-ARRT: Primary attendees at the ARRT teleconference were USEPA-Lautenberger, USDOJ-Gates, USDOC-Becker, USDA-Paul, USCG MSO Valdez-CDR Rome, and USCGD17-CAPT Haines. Other attendees represented ADFG, USDOJ-FWS and BLM, USDOC-NMFS and NWS.

Location of the skimmers was provided and the teleconference was informed that the CDFU was testing the use of herring purse seines to corral pockets of oil. An *in-situ* burn attempted south of Ingot Island was unsuccessful.

USNOAA was working on a wind model for the offshore area which was anticipated to be available by April 1.

Major concerns of the ARRT were identified as whether Exxon was getting all available equipment and having oil spill trajectories for the GOA.

XXXX USCG-ARRT: Beach cleanup was to be conducted by a three-tier team. The first team was to priority rank the areas to be cleaned, the second was to decide how to conduct the cleanup, and the third was to determine whether the cleanup was complete.

-- NRT/USCG: Three separate beach-cleanup work groups were established: Priority Assessment Team would rank most critically affected areas for cleanup; Cleanup Assessment Team would determine use of best cleanup techniques; Shoreline Assessment Team would make final assessments of cleanup work.

-- USCG POLREP FIFTEEN: Representatives of state and federal agencies and Exxon agreed upon a beach cleanup methodology. The process was to involve three separate working groups:

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1. *Priority Assessment Team*. This group would rank beaches based upon biological, recreational, subsistence, and cultural resources. Ranking would be from one through five with one being the highest priority. Maps were being prepared to show these priorities. Members of this team were representatives from ADEC, ADFG, ADNRR, USNOAA, USFWS, USFS, local fishermen, and Chugach Alaska Corporation (the Alaska Native Regional Corporation for that area).

2. *Cleanup Assessment Team*. This group would take the priorities from the Priority Assessment Team and determine the best techniques for cleaning the beaches, including whether the beach can be cleaned at all. This group was to include representatives and contractors from Exxon with input from USNOAA, USEPA, USCG, ADEC and ADFG.

3. *Shoreline Assessment Team*. This group would come into play after each beach had been cleaned, making a determination if the beach was clean enough. This group was to consist of state, USCG, and USNOAA representatives along with special interest parties.

XXXX *USNOAA*: A lengthy discussion on "how clean is clean" and restoration of oiled beaches ensued at the Beach Cleanup Committee meeting. Six new members were proposed for the committee: USDOI-BLM, USEPA, City of Valdez, City of Tatitlek, commercial fisherman, and an unnamed environmental group.

1426 *EXXON*: Last of three lightering hoses connected. Two hoses were six-inch, one was 10-inch.

1518 *EXXON*: Transfer of cargo from EXXON VALDEZ to EXXON SAN FRANCISCO started.

1614 *EXXON*: Line-up problems aboard EXXON SAN FRANCISCO. Cargo transfer shut down.

XXXX *USEPA*: USEPA's Kellogg returned to Anchorage from Valdez.

1715 *USCG POLREP FIFTEEN*: USCGC Sedge reported additional problems with PACAREA Strike Team barrier skimmer. Pump repairs were made but pumps continued to freeze up. Strike Team airlifted one diaphragm pump with support equipment on board Sedge.

1730 *USNPS*: The ICT had traveled from Anchorage to Seward where it met with USNPS Superintendent Castellina. Castellina and her staff had arranged for the ICT to be billeted at the U.S. Army's Seward Recreation Camp on the outskirts of Seward and to use an unoccupied USDA-FS seasonal housing unit as an operations center.

1745 *EXXON*: Cargo transfer resumed.

1800 *EXXON*: USCG reported four additional Strike Team personnel and equipment were being transported to the EXXON VALDEZ.

1800 *USNPS*: ICT Information Officer Dies and two City of Seward officials participated in a public meeting on the oil spill.

XXXX *USNOAA*: Exxon, the state, and the USCG had all restricted access to their command posts which resulted in the USNOAA command post becoming a center for information exchange.

XXXX *ADES:* Three AK ANG C-130s brought in loads of boom materials and heavy sea curtains from Prudhoe Bay.

XXXX *USNOAA:* The Resource Assessment Group held an evening press conference. A great deal of public concern was expressed about oiled animals.

2000 *USNOAA:* USNOAA and USCG personnel had met informally with the mayor of Seward to discuss trajectory implications. CDR Rome told the Scientific Support Team to be prepared to establish a second command post at Seward. When it happened would depend on the movement of the oil. The beach cleanup methodology was still in the development stage.  
*[AOSC NOTE: According to conversation with CDR Rome, he was the Asst. FOSC for operations.]*

2000 *USNOAA:* The Operations Coordinating Committee heard that all available skimmers and boom had been moved to Port San Juan. Boom in place there had broken and oil was within two miles of the hatchery. Twelve skimmers total were now operational for the cleanup. Three MARCOs from the Navy were enroute.  
 Another burning test at the north end of Knight Island was unsuccessful. Neither dispersants nor burning were options any longer.

2015 *USCG POLREP FIFTEEN:* USFWS reported one bird and two sea otters had been turned in to the respective cleaning stations. Preliminary reports by observers were that several thousand birds had been oiled. Two boats were being chartered by USFWS for bird and otter capture. USFWS stated that interest by preservation groups had been increasing with many people volunteering.

XXXX *USCG POLREP SIXTEEN:* Three oiled live birds were turned into the bird rehab center late on March 30.

2045 *USCG POLREP FIFTEEN:* USNOAA requested hourly on-scene weather reports from USCGCs Sedge and Rush to provide data for oil movement projections. NOAA was starting to work trajectories of oil which was beginning to enter the GOA. Initial estimates indicated that oil which reaches GOA will probably not impact beach areas.

2130 *USCG POLREP SIXTEEN:* Deflection boom deployed in Sawmill Bay (San Juan Hatchery) parted several times during the night. Contract boats were able to repair it and put the boom back in place.

2200 *EXXON:* Rate of cargo transfer was 12,000 barrels per hour - nine pumps on line.

2300 *NRT/USCG:* EXXON BATON ROUGE departed. Estimated 668,000 barrels of oil left on EXXON VALDEZ at conclusion of transfer operations.  
*[AOSC NOTE: At 1000 hours, the NRT/USCG indicated that over 447,000 barrels had been transferred from the EXXON BATON ROUGE. Using the initial load as 1,263,000 barrels, and the spill as 250,000 barrels, the USCG's spill estimate at that time, there would have been only 566,000 barrels left on board at 1000.*  
*What POLREP Fifteen actually said for 2300 hours was that gaugers reported approximately 668,000 barrels of cargo remaining on board the EXXON VALDEZ upon completing of lightering operations to the EXXON*

DAY SEVEN (Thursday, March 30)

*BATON ROUGE. It appears that this figure of 668,000 barrels did not stay around for very long.*

*As of 0847 on March 31, according to POLREP Sixteen, 147,826 barrels had been transferred from the EXXON VALDEZ to the San Francisco. At that time, it was estimated that 400,000 barrels of cargo remained on board the vessel. This would mean that before the transfer to the SAN FRANCISCO began, 547,826 barrels were left on the EXXON VALDEZ, a figure much more consistent with our previous information.]*

2330

ADES: The edge of the oil was closer to Seward than it was to Valdez. According to an ADES Situation Report, which took information from the USCG, USNOAA had reported that oil was beginning to stream into the GOA but that it was fairly optimistic that the oil would not come ashore in a great amount due to the currents. NOAA felt that approximately 40 percent of the originally leaked oil had evaporated and that only 10 percent of the remaining oil would go into the GOA. Turbulence in the GOA, it thought, should increase the natural dispersing of the oil resulting in the oil being thinned out but covering a greater area. If the GOA shoreline was effected, it would probably be by a splattering of oil in individual areas rather than a massive covering of the beaches by oil.

XXXX

ADEC: By evening the farthest reach of the slick, as observed visually from aircraft overflights, was 90 miles southwest of Bligh Reef. Since yesterday, the leading edge had traveled 38 miles.

XXXX

USCG POLREP FIFTEEN: Offers of assistance in the form of skimmer systems were received from the Soviet Union and Norway.

Exxon's equipment update: Eight landing craft, 65 vessels (20 feet to 140 feet length), five tugs, barge and tug for skimmer deployment, tank barge and tug at Knight Island for recovered oil collection, 15,500 feet boom deployed in bays, 7,000 feet boom around grounded vessel, 7,900 feet boom deployed with contract vessels, 33,000 feet of sorbent boom deployed or awaiting deployment, 2,400 feet fire boom. Deployed skimmer update: three Vikoma Sea Skimmers, Herring Bay area; two MARCO skimmers preparing for sea aboard Tug Kavik; one W-4 Walosep, one W-2 Walosep, one GT-185, all in Knight Island area; one ODI Skimmer, west side of Knight Island; USCG barrier skimmer with USCGC Sedge near Perry Island; two MARCO skimmers from Navy SUPSALV near east end of Knight Island.

Exxon reported 7,537 barrels of oil mechanically recovered. USNOAA estimated an approximate 30 to 40 percent evaporation of the oil which was spilled when tanker grounded.

In addition to utilization of the Alaska State Ferry Aurora, Exxon planned to bring down a 60-man unit from the North Slope to place on a barge for a floating camp. This would be utilized for berthing beach cleanup crews.

The FAA was to increase restricted air space coverage to include entire PWS area. Any aircraft flying under 1,000 feet would be required to have a mission number assigned by USCG, FAA, or Army air traffic controllers. A 3,000 foot minimum altitude would be enforced around the grounded EXXON VALDEZ as a prohibited zone.

Exxon was to bring in two drums of recovered emulsified oil from the Knight Island area. The oil/water mixture would be returned to AMT for test evaluations with Saacke Burner.

XXXX

USCG POLREP THIRTY-FIVE: Twelve skimmers were operating. The cumulative total recovered was 7,537 barrels.

DAY SEVEN (Thursday, March 30)

XXXX

**ADEC:** Alyeska Pipeline Service Company executives were blaming the USCG and the State of Alaska for the current bad situation because of the delay in okaying use of dispersants. Fact is, out of five initial tests, only one worked somewhat (per Coast Guard FOSC).

CDFU was now on Exxon payroll to deploy purse seiner vessels to "purse" oil for skimming/burning.

City of Seward might be new staging site for cleanup.

Three live oiled birds were in the recovery center: one murre, one white-winged scoter, one pigeon guillemot. Two live otters in recovery center, one dead oiled otter recovered and sent to ADFG office in Valdez.

ADFG survey of Green Island revealed live and dead oiled birds on beach near shoreline and 10-15 oiled otters on beach. The birds were too oiled to identify species.

USFWS otter rescue project was being implemented with 12 personnel: two pilots/two spotters, two beach crews of four each. Objectives were mammal damage assessment and capture of stressed otters for airlift to Valdez rehabilitation center established by Sea World.

XXXX

**ADN:** BP Alaska notified its customers it would be able to deliver only about 80 percent of the oil it had promised to supply in April. Exxon also announced it would have to cut shipments to customers by 15 to 20 percent.

XXXX

**ADN:** Senator Stevens was finally able to get a flight out of the Caribbean and was making his way to Alaska. In the meantime, Congressman Young was apparently staying informed about the spill in California, where he was visiting family and earning at least one honorarium, but making no attempt to return to the state.

XXXX

**ADES:** Flights into and out of Valdez Airport totalled 473. The AK ARNG flew four CH-54s, a UH-60, and UH-1H in seven missions to carry cargo and passengers for ADEC. The AK ANG C-30 was in the air for two missions.

2400

**EXXON:** The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 520: 55 Exxon employees on-site, 375 contract personnel, 60 contract fishing personnel in Valdez, and an estimated 30 contract fishing personnel in Cordova.

180 tons of air cargo arrived today including boom, boats, Exxon Command van, fenders, absorbent, dispersants, and safety equipment. 104 vessels were deployed as were 84,000 boom feet, 12 skimmers, and an unknown number of aircraft.



# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

FRIDAY, MARCH 31, 1989

## DAY EIGHT

### Approximate Alaska Local Time

0612 U.S.A.F: Valdez sunrise.

1928 U.S.A.F: Valdez sunset.

XXAM **EXXON:** EXXON SAN FRANCISCO and EXXON VALDEZ engineers worked to secure deck for salvage operations.

0220 **EXXON:** Tenth pump for cargo lightering on line.

(A total of ten pumps were placed in operation for the lightering. Three pumps, including the initial two, were supplied by the Coast Guard, along with spares. The others, plus additional spares, were mobilized by Exxon. Substantially all this equipment was flown to Alaska and transported out to the vessel by helicopter and boat.)

XXXX According to an article in this morning's *Anchorage Daily News*, shortly after the spill Exxon officials rejected the offer of a 73-foot skimming vessel, the largest of its kind in North America, a barge, and other equipment from Clean Sound Cooperative, a consortium of oil and transportation companies for controlling oil spills in Puget Sound, Wash. Jim O'Brien, an expert hired by Exxon to help manage the spill, indicated the company was putting more reliance on chemical dispersants and burning at that time. Exxon also never responded to an offer from Burrard Clean, a similar consortium in Vancouver, B.C., Canada, for a 50-foot self-propelled skimmer and crew. Dave Parish of Exxon in Alaska said timing was a problem in accepting the offers. "By the time they got it up here in four to five days was a heck of a lot of lost time," Parish said.

0600 **EXXON:** Ten prime movers (diesel-driven hydraulic power-packs) were working plus the pumps.

XXXX **ADEC:** The EXXON VALDEZ was stable in fairly calm seas. There was some concern as the ship was lightened by removing oil. Exxon, state, and federal representatives were looking for locations to move the vessel after it was emptied. The EXXON VALDEZ was still leaking at an unknown but somewhat increased rate over the last two days. The containment boom surrounding the vessel had broken for a second time and was being repaired.

0800 **USCG POLREP SEVENTEEN:** USCGC Sedge was in Sawmill Bay area with skimming systems fully operational.

0800 **USNOAA:** Operations Committee met. Mapping/trajectory coordination with USCG and Exxon was going well. Statistical winds were being used to look at longer-term implications of oil in the GOA. The group was briefed on the tidal pulse located in Latouche Channel, which was expected to get stronger and could pull oil into the channel. All crews were to pick up dead animals; plastic bags for this purpose were being made available. Kennedy of USNOAA was to meet afterwards with Paul

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(Exxon Shipping Company human resources) and SOSC Lamoreaux to discuss beach cleanup issues.

0847

*USCG POLREP SIXTEEN:* Light sheen was being released by the EXXON VALDEZ. Divers were down making additional hull surveys of starboard side. 147,826 barrels transferred to EXXON SAN FRANCISCO. 400,000 barrels of cargo remained aboard the EXXON VALDEZ. Ten pumps were on line with total pumping rate of 11,852 barrels per hour. Cargo tanks were being inerted to keep internal atmospheres below explosive limits. Problems were being encountered in pumping out cargo from forward peak tank. Submersible pumps were too large to enter tank openings. Alternate methods were being explored. Strike Team personnel on board the EXXON VALDEZ estimated completion of lightering operation on P.M. 1 April 1989.

XXXX

*NRT/USCG:* Due to low visibility, the USCG used its own AIREYE and Exxon IR tracking equipment to monitor the spill migration. USNOAA projections using the AIREYE surveillance showed a large crossover effect. The oil slick appeared to be turning back on itself, moving into Knight Island Passage.

Oil had now passed Montague and Latouche Island and was proceeding westerly in the GOA. The oil had moved easterly against Knight and Latouche Island. The oil in Knight Island Passage had moved southerly to Drier Bay. Green Island was surrounded by thickening oil. A large patch of thick oil reached the northwestern side of Knight Island past Herring Bay area. Latouche Island was touched by lighter patches. No signs yet of beach contamination.

A preliminary USDOJ survey of Green Island indicated 1,000 oiled birds.

Exxon reported 7,537 barrels of oil recovered. Oil emulsifying with water had increased the volume of liquid to be recovered. Weir-type skimmers were replaced with rope-mop units.

Weather: Northeast winds to 15 knots, seas to five feet, lowest temperature in the twenties.

XXXX

*USCG POLREP SIXTEEN:* Professional industrial hygienists were on scene with Exxon working through a safety coordinator. Vapor inhalation by cleanup crews was tested. Exxon set up an emergency hotline to handle injuries or incidents. Several minor injuries had been reported to Exxon by contractors on scene.

Movement of recovery forces to Sawmill Bay was being undertaken with great urgency. USNOAA considered Knight Island area to be more of a threat over the next week than at present. Proximity of this area to hatchery areas was considered high priority for deployment of protective and recovery efforts.

Weather: Northeast winds to 15 knots, seas to five feet, lowest temperature mid-twenties, showers, low visibility.

Plans to refloat the EXXON VALDEZ were not to be implemented until Wednesday, 5 April, at the earliest. Initial analysis showed sufficient section modules for vessel to float intact in its present condition. This was to be verified to the maximum extent possible.

Spill estimate remained 250,000 barrels (10.5 million gallons).

XXXX

*ADFG:* ADFG biologists reported finding 140 oiled birds per mile of shoreline on the west side of Green Island; on the north end of the island the count per mile increased to 270.

0900

*USCG POLREP SIXTEEN:* Exxon was taking steps to move the two Navy MARCO Skimmers into position between Latouche and Evans Islands. Five

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additional MARCO Type V Skimmers were being requested from the U.S. Navy along with two van loads of 2,000 feet each of 42-inch inflatable boom.

- 1000 *NRT/USCG*: Alaska Senator Stevens arrived and was briefed by FOSC CDR McCall.
- 1024 *USCG POLREP SIXTEEN*: FOSC CDR McCall approved funding of 1,000 feet of open-water boom at Seward as contingency for oil moving to that area.
- 1100 *USCG POLREP SIXTEEN*: Retrieval of any dead birds or animals was stressed by officials. Raptors had been sighted feeding on carcasses. ADFG had set up a cooler van for receiving dead wildlife at the State Building in Valdez. ADFG was making plans to implement a live sea otter capture operation. Oiled ones would go to the rehabilitation center, unoiled ones would be caged for transport to safe area.  
[AOSC NOTE: According to USNOAA, the highest density of sea otters in North America was located in the Hinchinbrook/ Hawkins Island Area.]
- 1100 *USCG POLREP SEVENTEEN*: Senator Stevens, Alaska, arrived. The FOSC held a briefing for the Senator.
- 1100 *ADEC*: Dick McKean, ADEC environmental field officer on board the EXXON VALDEZ, reported that 180,418 barrels had been transferred to the EXXON SAN FRANCISCO. Nine pumps ran through the night moving an average of 12,000 barrels per hour; current pumping rate was 10,627 barrels per hour. Not all pumps were running continuously because some tanks were being pumped dry.
- 110X *ADN*: At an Exxon press conference at the Valdez Civic Center, Don Cornett, Exxon's head in Alaska, provided the following statistics: 196 people on the Exxon Response Team including 60 high-level Exxon experts; 350 workers hired to clean up beaches; 200 boats to carry them; 12 oil skimmers to suck sheen off the water; more than 28 million gallons pumped from the grounded tanker being sucked up by 10 pumps at 12,000 barrels per hour.  
Cornett, however, did not have the exact number of gallons of oil retrieved by the skimmers. The last estimate, between 200,000 and 250,000 gallons, had been given a day earlier.  
Next, Exxon Shipping Company President Frank Iarossi, whose Houston, Tex., office had been empty for a week to be in Valdez, described the management structure: a cleanup committee, a cleanup methods committee, a logistics-support committee, a waste-disposal committee. Then his finale: a \$10 million assistance fund filled with Exxon money to buy immediate relief for anyone who could prove they need it.
- 1115 *USCG POLREP SIXTEEN*: USCG Strike Team barrier skimmer operators reported an estimated recovery rate of 15,000 GPM. USCGC Sedge towed barrier skimmer and barge to Sawmill Bay Area with six Strike Team personnel aboard.
- 1130 *USCG POLREP SIXTEEN*: USNOAA approved a drift-card tracking program with Institute of Ocean Sciences, Sidney, B.C., to begin tracking oil for future impacts.  
311(k) (Clean Water Act) expenditures totalled \$1,543,537. Increase of fund ceiling to \$4.0 million was recommended.

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1200

*O'DONOGHUE, ADN:* The tension mounting due to the slow pace and complications involved in the cleanup effort was clearly evident at the Exxon press conference. Fishermen from the back of the auditorium loudly criticized many facets of the cleanup. Exxon spokesman Cornett had a shouting match with an unemployed worker. The chaos reached a peak when police officers stationed by the front door of the building fell for an attention-grabbing ploy performed by the regional director of Greenpeace, Cindy Lowry.

Police had been warned that someone from Greenpeace intended to throw an oiled bird or sea otter at the stage during the conference. Lowry refused to allow search of her backpack and declined to leave the building. The conference came to an abrupt halt when a scuffle resulted and several people ran into the auditorium shouting "illegal search in the hallway." Lowry's backpack was later said to be stuffed only with laundry.

(Following this fiasco, Exxon abandoned its scheduled 1100 daily press conferences and adopted a policy of printing statements sporadically.)

1200

*EXXON:* Total EXXON VALDEZ cargo aboard the EXXON SAN FRANCISCO reached 184,000 barrels. The USCG reported salvage operations equipment was airlifted to the EXXON VALDEZ.

1200

*NRT/USCG:* Nearly 80,000 feet of sorbent boom was transferred from USCGC Rush to contract vessels in southern part of PWS. The Rush acted as command and control platform in this area. Operating OWOCRS from the USCGC Sedge, the USCG Strike Force recovered 679 barrels of oil. Personnel were issued respiratory equipment to avoid irritating fumes from oil. Three dead sea otters were removed from the sea. Meanwhile, EXXON VALDEZ showed signs of buoyancy after 500,000 barrels off-loaded to EXXON BATON ROUGE and EXXON SAN FRANCISCO.

XXXX

*USEPA:* USEPA's Region 10 asked its employees to notify their supervisors if interested in volunteering for duty in Valdez. Candidates were to provide a brief description of their qualifications and experience so selections could be made. EPA was sending a press officer to Valdez.

Region 10 telephoned ADEC's Kyle and volunteered technical assistance. Lautenberger was still in Valdez. Kellogg returned to Valdez.

EPA activated its Environmental Response Team (ERT). This group was providing assistance to USNOAA's SSC. Three members of the ERT were enroute to Valdez.

Region 10 was in contact with the water program at its headquarters. Region 10 wanted an initial assessment of damages to get underway before the oil moved and was concerned that USDOJ, USNOAA, USFS, and the state were not planning such an assessment. Headquarters put Region 10 in touch with someone at NOAA.

1400

*USNOAA:* The ARRT met. Discussions centered on the current location of the oil and trajectory forecasts for where the oil will go. Damage assessment was discussed and resource agency responsibilities were reiterated.

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*USCG-ARRT:* ARRT agencies and primary members participating in the ARRT teleconference were USEPA-Lautenberger, USDOJ-Gates, USDOC-Becker, USDA-Paul, ADEC-Kent, MSO Valdez-CDR Rome, and USCGD17- Capt. Haines. Other attendees represented ADFG, USDOJ-FWS and BLM, USDOC-NMFS and NWS.

The primary concern of the ARRT was identified as whether Exxon had a specific plan of action for the cleanup. In other matters, two skimmers previously located at the EXXON VALDEZ were moved south for recovery work. A high

capacity vacuum system was enroute from Prudhoe Bay and would be deployed on a barge due into PWS. A MARCO Class XI skimmer was being trucked in from Portland, Ore., to Valdez. Arrangements were made to ship this oversized load through Washington and Canada at night. USNOAA now had the capability to provide a 72-hour wind projection.

-- **USEPA:** USEPA's Kellogg reported to the ARRT that there was a slow-down in spill response efforts by Exxon. Kellogg also reported that Exxon had had only an inventory of 30,000 gallons (546 gallons) of dispersants in Valdez prior to the spill. The best estimates, according to Kellogg, were that 500,000 gallons would have been necessary to adequately fight the spill.

*[AOSC NOTE: According to Exxon's own chronology, there were only 20,000 gallons (365 barrels) of dispersants in the whole State of Alaska prior to the spill. The quantity Kellogg indicated wasn't in the state until March 26.]*

**XXXX** **USEPA:** USEPA continued to report to the FOSC its willingness to provide assistance to the response effort. The agency also wrote to ADEC to advise of its willingness.

**1400** **NRT/USCG:** AK ANG air-dropped sorbent materials to contractor boat crews in Hawkins Island area.

**XXXX** **USCG POLREP SEVENTEEN:** A boat cleaning station was being set up at the Valdez Small Boat harbor and part of the boat harbor was boomed off to prevent contamination of the vessels and floating docks. Five Navy MARCO skimmers were to be transported from Stockton, Calif. to Valdez. Three were to be deployed to cover contingencies at AMT, two were to be deployed offshore.

-- **NAVSEA(SUPSALV):** Navy SUPSALV opened its stores at both the ESSM bases, Williamsburg, Va., and Stockton, Calif., for the EXXON VALDEZ oil spill response. To requests for additional equipment, the SUPSALV sent five vessel skimmers, two tow boats, three boom vans, ten mooring systems, and two inflatable boats. The West Coast materials were flown by SAAM from Travis AFB and the East Coast materials were flown by SAAM from the Naval Air Station, Norfolk, Va. Either C-141s or C-5s transported the equipment to Elmendorf AFB, Alaska. ETA for both shipments was the next day at Elmendorf.

**1600** **ADEC:** Oil transfer rate from EXXON VALDEZ was 5,097 barrels per hour as pumps were moved from tank to tank on the vessel. (As oil is removed from a tank, a pump begins to suck water and oil mixed; the pump is then transferred to another tank in order to remove the maximum quantity of oil possible.)

**XXPM** **EXXON:** The number of pumps was varied due to tank switches.

**XXXX** **ADN:** The Alaska Department of Revenue announced that state revenue projections indicated higher oil prices would cut next year's projected budget deficit from January's estimate of \$872 million down to \$255 million. The lower budget deficit projection was based on a fiscal 1990 oil-price average of \$15.66 a barrel, \$2.16 a barrel higher than predicted two months previously. The price increase was attributed to a new OPEC production agreement which went into effect on January 1. Worldwide oil production went down and price went up.

XXXX *ADN:* Dietrick, ADEC's director of environmental quality, expressed his frustration over Exxon's oil spill response to a reporter and said that the state was going to start cleaning island beaches. "We've got to get going. It's right there on the beaches," he said.

XXXX The dispute between Exxon and ADEC over authorization of the use of dispersants escalated. ADEC issued a press release stating that ADEC did not, in any way, delay the use of dispersants on the oil spill. The release pointed out that the FOSC controlled the use of dispersants in a pre-approved area under guidelines established by the ARRT. In the case in which Exxon requested approval on Monday afternoon to use dispersants in an area which required ADEC input, ADEC responded within one hour with conditional approval in order to protect sensitive resources and shorelines. Because of limited light for observation and Exxon's failure to have the dispersant plane on site, the application was cancelled.

The release continued by noting that while mechanical removal was more desirable than dissolving the oil into the water column with dispersants, in some situations the use of dispersants may be appropriate. "In the T/V EXXON VALDEZ spill, Exxon was free to use dispersants on the vast majority of the oil slick and did not," the release concluded.

XXXX *O'DONOGHUE:* Governor Cowper accepted an offer from the Soviet Union to send a 425-foot, 11,400 ton skimmer.

XXXX *EXXON:* USNOAA contacted Exxon Shipping Company with a request that Exxon provide \$15 million to fund activities with a scientific natural resources damage assessment. Exxon committed itself to this funding in advance of preparation of a formal agreement.

XXXX *ADN:* Four class action suits related to the Exxon Valdez oil spill had been filed so far. Flamboyant California personal-injury attorney Melvin Belli teamed with an Alaska lawyer and entered the fray in state court. Their suit --brought in the name of 15 Alaska residents, including commercial fishermen, crew members, tender operators, fish buyers, and fishing coops -- named Exxon, Alyeska Pipeline Service Company, the State of Alaska, and the federal Trans-Alaska Pipeline Liability Fund as defendants. One class action suit against these defendants was filed in federal court by charter and sport fishermen and another suit in federal court was filed by a sampling of industries that expected to be damaged by the oil spill.

XXXX *ADN:* Exxon USA, BP Alaska, and ARCO Alaska requested that the USCG ease the restrictions on tanker traffic in Valdez Harbor which had been in place since the EXXON VALDEZ oil spill. The oil companies stated the safety measures should be lifted because the West Coast was in desperate need of crude oil.

Only five tankers had left Valdez since the EXXON VALDEZ ran aground. Usually three to four tankers left the port each day.

Wholesale gasoline prices on the West Coast jumped 15 cents a gallon and consumption was up as people rushed to top off their tanks, scared that the Valdez tanker spill would cut off supplies.

1700 *NRT/USCG:* Ten sea otters had been received by the wildlife cleaning facility.

1800 *NRT/USCG:* 220,952 barrels of oil had been transferred from EXXON VALDEZ to EXXON SAN FRANCISCO.

1800 *USCG POLREP SEVENTEEN:* With problem of pump entry into peak tank of EXXON VALDEZ resolved, tank was being pumped. Light sheen continued to be emitted from bow area.

1818 *USCG POLREP SEVENTEEN:* USCGC Rush was underway with 60-80,000 feet of sorbent boom for transfer to contract vessels in southern part of PWS. The Rush was to act as command and control platform for recovery operations.

1930 *NRT/USCG:* USCGC Sedge departed for Sawmill Bay area by way of Knight Island passage.

2100 *USNOAA:* Beach Cleanup Methodology Committee met. Teal of Exxon spoke on the state of preparations for cleanup.

XXXX *USCG POLREP EIGHTEEN:* Clean Water Act 311(k) expenditures were \$1,641,132.

XXXX *O'DONOGHUE:* In the evening, Exxon publicized its plan for refloating the EXXON VALDEZ by pumping its cargo tanks full of inert gas, a technique perfected on ships in the Persian Gulf damaged during the Iran-Iraq war. After refloating, the ship would be towed to a sheltered port for temporary repairs before sailing to a shipyard in the lower 48.

XXXX *ADN:* ADEC workers published a map showing heavy concentrations of oil on Hinchinbrook Island on the east side of PWS, a significant finding since it would mean a threat to the migration routes of millions of ducks and geese traveling north. USNOAA's maps did not agree, and after a series of flights to check out the sighting, ADEC's found oil turned out to be plankton and not oil at all.

XXXX *ADN:* Seward, the first community downstream from the oil spill, was sending up two spotter flights a day to check the oil slick. Boats were standing by to deploy oil containment booms and officials were collecting names of volunteers.  
The USNPS ICT in Seward began an animal census in order to help determine priority areas that should be protected from the oil as well as to help judge later what harm the oil did.

XXXX *ADES:* ADES held public meetings in Cordova and Tatitlek. The panel included a member of ADES, a person from the Alaska Department of Community and Regional Affairs (ADCRA), and a representative of Alaska State Sen. Jalmar Kertula's office. The purpose was to develop a close working relationship with these communities and to determine what their primary concerns and feelings were pertaining to the oil spill.  
According to ADES, considerable anger in the communities centered around the lack of credibility with Exxon, Alyeska, the USCG, and ADEC. The people felt lied to in relationship to the capabilities of those agencies to protect the environment from a disaster. The people felt the emergency response had been slow, inadequate, lacking in coordination, and that it was impossible to have a coordinated response as long as the direction came from the Exxon, USCG, and ADEC troika.  
ADES observed that the operations of the first week had centered around the technical aspects of the spill and efforts to reduce the amount of damage done. Little effort had been made to assess or mitigate the human concerns caused by the oil spill.

XXXX *ADFG:* State, federal, and university biologists met in Cordova to plan a strategy for assessing effects of the spill on fish populations, their habitat, and their value to

DAY EIGHT (Friday, March 31)



Alaskans and Americans in general. A similar meeting was to take place in a few days in Anchorage for wildlife biologists. Assessment work could take up to five years and cost millions of dollars.

XXXX

*O'DONOGHUE*: Only 20 oiled birds and four otters had been admitted for treatment into Valdez rescue centers. After the accident, most avians avoided the open water and it took the oil four-five days to hit the beaches where birds clustered close to the shore. Then the sheer distance of transporting the birds became a problem. Few oiled birds caught by boat crews survived the eight-12 hour ride from affected islands to the bird recovery center. Most of the survivors were brought in sporadically on helicopters and planes.

Otters were nearly impossible to catch in open water and by the time they were found on the beach, they usually were too sick to survive. Unlike most mammals, the otters frolicked in the glistening crude and were poisoned after ingesting oil they licked off their fur. They didn't crawl up onto beaches until after they started to feel sick, according to John Nelson, USFWS.

XXXX

*ADN*: At Herring Bay the fleet of bird catchers numbered four boats being leased for \$2,000 a day each or more. There were seven untrained workers and a group of three experts. They sent 11 birds and one otter to a bird hospital in Valdez in a helicopter that rented for \$1,650 an hour. The helicopter trip took two hours.

In publicity alone the birds may have been worth their cost to Exxon because they showed that something was being done. Photographers, mostly shore-hounds, literally fought to get a look at them.

The animal rescue expedition was organized by Kelley Weaverling, a Cordova bookstore owner who usually spent four months of each summer kayaking on the Sound. This morning Weaverling said he hadn't had time to react to what he had seen since he got out onto the oily water Thursday. Asked what he thought, he started to cry.

XXXX

*ADES*: Functions of the ADES EOC continued to expand. Staff involvement included coordination of supply, logistics, airlift, communications, public information, and security. Two additional ADES personnel arrived to bolster the EOC staff.

XXPM

*USCG POLREP SEVENTEEN*: All skimming resources were repositioned today to the intersection of Knight Island Passage and Montague Strait.

Exxon equipment update: 43,000 feet of various boom deployed, 41,000 feet sorbent boom deployed. Eighty-five contract vessels deployed cleaning oil, handling skimmers, or in logistics. Thirteen various skimmers deployed or being transported. Two barges were in area to receive skimmed oil.

The oil was reported as more viscous. Weir-type skimmers were beginning to clog up more often. Rope-mop type skimmers were enroute.

Twenty-three birds had been turned into the bird cleaning station with more reported on the way. Two boats were deployed in bird capture operations; the FOSC intended to press for more. USDOJ cautioned all personnel concerning capture of sea otters. The agency advised that only qualified handlers pick up oiled otters as they were very dangerous.

Media interest was still high and congressional interest was increasing. Activist group interest was intensifying. Copper Valley Telephone Company reported that 24,000 calls either hadn't gotten into or out of Valdez since the start of the incident. The number of phone lines in Valdez had tripled.



The FOSC decided not to bring the EXXON VALDEZ into Port Valdez for repairs. Anchoring the vessel in an already oil-impacted area, possibly Naked Island, was considered feasible.

On-scene weather in southern edge of PWS: Calm seas, visibility 15 miles, overcast, nine knot winds.

XXXX *ADN:* The oil Exxon spilled was spread all over Prince William Sound: a 100-square mile sheen west of Naked Island, a 1,200-square-mile slick in the middle of the sound, heavy oil around Knight and Green Islands, and emerging in the Gulf of Alaska through the Hinchinbrook Entrance.

Exxon asked boat skippers, bird rescue crews and others to sign a contract that restricted them from talking with the press.

XXXX *ADN:* Late Friday the state Attorney General's office filed three misdemeanor charges against EXXON VALDEZ Captain Hazelwood: operating a vessel while intoxicated, reckless endangerment, and negligent discharge of oil. The maximum penalties upon conviction were one year in jail and \$5,000 for each of the first two charges, and 90 days and \$1,000 for the third.

An arrest warrant was subsequently issued by the Valdez Magistrate. Alaska authorities there could not find Hazelwood to take him into custody. They learned he slipped out of Valdez by airplane on Tuesday.

XXXX *ADES:* Flights into and out of Valdez Airport totalled 416. The AK ARNG and AK ANG established an operations center at Valdez Airport to coordinate AK NG and CAP activities in the oil spill area. The AK NG complement at Valdez increased to 78 personnel: 60 Army, 10 Air, and eight Naval Militia. Additional equipment was added including two fuel tankers.

An AK ANG C-130 was bringing 400 bales of boom materials staged at McCord Air Force Base in Washington to Valdez. The AK ARNG CH-54, UH-60s and a UV-18 were in the air for ADEC and an unidentified state agency for six missions while the AK ANG C-12 flew three missions and C-130s flew five missions.

XXXX *USCG POLREP THIRTY-FIVE:* Thirteen skimmer systems were operating and the cumulative total recovered was 8,200 barrels, or 663 for this day.

2400 *EXXON:* The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 433: 56 Exxon employees on-site, 323 contract personnel, 36 contract fishing personnel in Valdez, and an estimated 18 contract fishing personnel in Cordova.

Fifty-six tons of air cargo arrived today including skimmers and absorbent. 104 vessels were deployed as were 84,000 boom feet, 12 skimmers, and an undetermined number of aircraft.

DAY EIGHT (*Friday, March 31*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

SATURDAY, APRIL 1, 1989

DAY NINE

## Approximate Alaska Local Time

0609 *USAF: Valdez sunrise.*

1930 *USAF: Valdez sunset.*

XXXX *NRT/USCG: By April 1, a substantial accumulation of response equipment had been deployed throughout affected areas of the sound. For example, the amount of boom positioned by Exxon from March 24 to April 1 grew from 12,500 feet to over 84,000 feet.*

*Galena Bay was protected by 1,000 feet of deflection boom; Head Main Bay by 5,000 feet, with a recovery vessel attending; Hatchery Island of Main Bay by 2,000 feet; and Herring Bay, Knight Island, by 3,000 feet of sorbent boom and 6,000 feet of recovery boom used by five vessels for later pickup by skimmers.*

*Sawmill Bay, Evans Island, was protected by 50,000 feet of boom deployed with 15 vessels and much other equipment; Point Helens, Knight Island, was shielded by 1,200 feet of recovery boom; Snug Harbor, Knight Island, by 1,000 feet; Bay of Isles, Knight Island, by 500 feet of boom; and Busby Island by 5,000 feet of recovery boom. Applegate Rock was protected by USCG barrier skimmers with an attending 35,000-barrel recovery barge.*

*Crippled EXXON VALDEZ was surrounded by 6,000 feet of boom.*

*The federal presence had increased significantly. Employed in the response on April 1 were 391 CG personnel, 23 from DOI, 14 from NOAA, six from EPA, and four from USDA. On-scene equipment marshalled by federal agencies included 8,000 feet of sea boom, 2,000 feet of flexi-boom, 1,200 feet of harbor boom, over 100,000 feet of sorbent boom, two CG Strike Force skimming OWOCRS, two Navy MARCO Class V skimmers, a CG PACAREA tow vehicle, eight boats, three CG cutters, four fixed-wing aircraft, and four helicopters.*

XXXX *ADEC: Due to the length of time the oil had been in the water, dispersant use was no longer feasible.*

0300 *EXXON: 330,366 barrels remained aboard the EXXON VALDEZ; EXXON SAN FRANCISCO had lightered 260,000 barrels. Seven prime movers and seven pumps were working.*

XXAM *EXXON: Oil volume in tanks was decreasing, therefore more time was required to "strip" and reposition pumps. Preparations for vessel float-off continued.*

0541 *EXXON: Automatic fire alarm sounded on the EXXON VALDEZ. All cargo lightering operations were shut down and all personnel aboard were mustered at boat stations. It was a false alarm. Burned toast in the galley had tripped the system.*

0650 *NRT/USCG: 295,645 barrels of oil had been transferred to EXXON SAN FRANCISCO.*

0650 *USCG POLREP EIGHTEEN: Total quantity lightered off EXXON VALDEZ to T/Vs EXXON BATON ROUGE and EXXON SAN FRANCISCO was 772,645*

DAY NINE (Saturday, April 1)

- barrels, which included a quantity of sea water. Pumping was ongoing from two of the undamaged port tanks.
- XXXX *NRT/USCG: Heavy weathered oil continued to wrap around Knight Island. Emulsified oil was reported from Squire Point south to Prince of Wales Passage opposite Port San Juan. Heavy oil was also reported on west side of Latouche Island.*
- XXXX *ADFG: Prince William Sound sablefish (black cod) fishery did not open as scheduled because of the oil spill.*
- 0900 *USCG POLREP EIGHTEEN: Sorbent material received from USCGC Rush was being deployed on Montague Island in areas identified by ADFG.*
- 0930 *USCG POLREP EIGHTEEN: FOSC requested input from all groups concerning anchoring location of EXXON VALDEZ for temporary repairs. Refloating was still estimated for 5 April.*
- 1000 *NRT/USCG: Alaska State officials were mobilizing resources to conduct water sampling in areas of hatchery and spawning activities.*
- 1000 *USCG POLREP EIGHTEEN: PACAREA Strike team barrier skimmer, pump float, and related equipment and boom arrived from California. Equipment was being staged for deployment.*
- 1045 *ADN: Suffolk County, N.Y., police failed to find Capt. Joseph Hazelwood at home in Huntington, Long Island, when they tried to serve an Alaska arrest warrant. (Two more attempts during the day were also unsuccessful.)*
- 1100 *USCG WAK POLREP ONE: Two thousand feet of cold weather containment boom arrived in Seward from Dutch Harbor. The USCG stored the boom at the City of Seward facility where the city was storing boom purchased through Exxon.*  
*[AOSC NOTE: The first USCG POLREP (Pollution Report) from the FOSC Western Alaska (WAK) was sent on the ARRT E-Mail at 0700 local time on April 6 by USCGD17. The time WAK POLREP One was actually sent by the MSO Anchorage is not known since the E-Mail of the ADEC representative to the ARRT was our source and not the USCG. There appears always to be a lag between an actual POLREP issuance and its issuance on E-Mail. In the case of PWS POLREP ONE, the lag was seven hours. It appears from the last of the time entries in WAK POLREP ONE that it was sent by the MSO Anchorage the evening of April 3.*  
*All times listed in the WAK POLREP were "Z" Time (Greenwich Mean Time), thus requiring conversion by the compiler of this chronology in order to have local times. According to the MSO Valdez and an almanac consulted, "Z" Time was nine hours ahead of Alaska Standard Time. When Daylight Savings Time went into effect, which it did on April 2, the differential from "Z" Time became eight hours.*  
*The Valdez MSO, which issued the PWS POLREPS, used "Z" time for POLREP datelines but used local times for time entries within the text, making them less complicated for the general public to use. Additionally, for essentially the first 30 days of the oil spill, the compiler of this chronology knew the time these POLREPS were sent as she had copies of the actual POLREPS to which to refer. Knowing when a POLREP was sent makes it possible to date undated information. Later PWS POLREPS that were*

*utilized were obtained from the E-Mail; thus such information is less accurately dated.]*

1130 *NRT/USCG:* Wildlife recovery centers were treating 28 oiled birds and 12 otters.

1200 *USCG POLREP EIGHTEEN:* A Soviet offer of assistance was being explored. U.S. Representative Solares was due to arrive for area overflight.

1215 *NRT/USCG:* Notice of Mariners broadcast: All vessels not involved in response operations were to stay well clear of any observed oil.

XXXX *ADEC:* The current size of the slick was over 1,000 square miles.

Exxon reported they had 12 skimmers operating but it had given no estimate of the amount of oil recovered.

1300 *NRT/USCG:* Secretary of Transportation Skinner and USCG Commandant ADM Yost were briefed by the FOSC on cleanup status and adequacy.

1300 *USCG POLREP NINETEEN:* FOSC Valdez held a teleconference with Secretary of Transportation Skinner and USCG Commandant ADM Yost. The Secretary expressed confidence in USCG, ADEC, Exxon, and local fishermen in their efforts to coordinate an effective cleanup.

1330 *USCG-ARRT:* ARRT agencies and primary members at the ARRT teleconference were USEPA-Kellogg; USDOJ-Gates, USDOC-Becker; USDOD/ACOE-Merv Mullins; USDA-Paul; ADEC-Lamoreaux; USCG MSO Valdez-Capt. Haines, CDR McCall, and CDR Rome; USCGD17-LCDR Tiernan and LT Carey. Other agencies represented were USDA-FS; USEPA-ERT; USDOJ-Minerals Management Service (MMS), BLM, and NPS; USDOC-NWS and NMFS; ADFG; ADES; and the Canadian Coast Guard.

The Canadian-U.S. District pollution contingency plan was activated to facilitate the transfer of Canadian pollution response gear to PWS. USNOAA projected that the oil moving into the GOA did not pose a threat to Resurrection Bay or Seward at that time, as long as the winds did not shift.

Two satellites had been overhead taking surveys of the PWS area. USDA-FS was to have the results later. The USDA-FS was the referral point for offers of beach cleanup assistance.

Exxon was considered to be making better progress on getting equipment to the spill site. All groups -- the State of Alaska, Exxon, USCG, and CDFU -- were providing logistic and equipment support.

The issue of USEPA and the state wanting two-three day projections on where and what cleanup activities were being planned was being addressed and the resource agencies were evaluating moving the EXXON VALDEZ to the Naked Island group.

1400 *USCG POLREP NINETEEN:* At the ARRT meeting, the FOSC briefed on operational situation to date.

XXXX *USCG POLREP EIGHTEEN:* Skimming activities were presently concentrated in Knight Island-Latouche passage areas (Sawmill Bay). Total of nine skimmers working. F/V Glacier with ODI Skimmer reported good recovery working in heavy oil, equipment working well. USCGC Sedge was working with CG barrier skimmer. MARCO skimmers were working in Latouche Passage. Small rope-type skimmers were deploying into oil concentrations.

DAY NINE (Saturday, April 1)



USCGC Rush was underway acting as a command post and air traffic controller. The Rush had distributed all sorbent material onboard to eight contract boats engaged in cleaning operations.

Bird and mammal cleaning and capture operations escalated. Fifteen boats were deployed in capture and retrieval efforts.

USDA-FS stated they required input on cultural areas before beach cleanup commenced. The beach cleanup group was finalizing plans for priority areas. Test areas were being identified for initial attempts at beach cleaning operations. Sites on NE side of Eleanor Island were to be the first for operations. The hatchery areas were not being included by members of this group in their priority rating as they felt they were the highest priority and above their rating system.

Test burn of two barrels of oil transported to the AMT indicated Saacke burner incineration was possible with approximately 30 percent mixture of diesel. However, smoke was not sufficiently clean to meet air quality standards.

Exxon requested cleanup equipment from the Canadian Coast Guard.

Sites were being selected for location of four mobile weather stations to be located in remote areas to assist in trajectory predictions.

- 1450 *USCG POLREP NINETEEN*: Update on skimmer operations from MSO representative returning from USCGC Rush: Three skimmers operating in Snug Harbor area on eastern side of Knight Island, two skimmers operating south of Snug Harbor, AMT MARCO Class V skimmer operating in Drier Bay Area, two Navy MARCO skimmers operating northwest of Latouche Island, PACAREA Strike team barrier skimmer operating off of Point Helen in Knight Island Passage. All skimmers were working in heavy concentrations of oil and were reporting good recovery rates.  
[AOSC NOTE: The reference here was to a U.S Navy MARCO VII skimmer. However, NAVSEA/SUPSALV told the AOSC it sent Class V and XI skimmers. The only MARCO Class VII known to be operating was Alyeska's.]
- 1700 *USCG POLREP NINETEEN*: Weather on scene: Clear with calm winds, 49 degrees.
- XXXX *USNPS*: Senator Stevens visited Seward.
- XXXX *USFWS*: USFWS completed a survey of PWS. Total estimated population of birds in the sound was 91,536, which were generally randomly distributed. Approximately 49.5 percent were in areas already impacted or near the advancing oil. Based on numbers present, goldeneyes, scoters, gulls, and mergansers would be most impacted; loons, grebes, cormorants, harlequin ducks, murres, and murrelets less so. Nesting was to begin in three-four weeks; shorebirds and migrating seabird numbers were expected to increase.
- XXXX *O'DONOGHUE*: At a televised press conference at the Valdez Civic Center, Governor Cowper announced that Exxon's cleanup efforts had been unacceptable and that the state could no longer afford to watch from the sidelines. Cowper said that under the authority of his emergency declaration, the state would front the cost of its own separate cleanup operation with the expectation that Exxon would eventually pick up the tab.

The Governor said that he wanted "absolute proof" that response equipment would be standing by in PWS to deal with future spills. "If that's not done, we're authorized to close the pipeline," he said.

-- *ADFG*: At a press conference in Valdez, Governor Cowper announced the state-fishermen joint strike force.

XXXX *USNOAA*: At its meeting, the Operations Committee received a surveillance update and discussed the confusion that plankton blooms and fresh water lenses can cause in making aerial observations of oil on the water. The Resource Assessment Committee met and discussed effects on marine life, water quality, and cleanup priority strategies.

2100 *O'DONOGHUE*: The Alaska State Ferry Bartlett, normally used to transport passengers, cars, and equipment between Valdez and Cordova, was anchored in Valdez where its crew was loading rafts, skiffs, rakes, and bundles of absorbent cleaning materials onto the ship which was to serve as a floating dormitory in Sawmill Bay for cleanup workers.

XXPM *USCG POLREP NINETEEN*: A total of 25 otters had been captured for cleaning and over 30 birds were now being treated in the cleaning centers.  
 The total federal presence was now 477. Coast Guard personnel numbered 391. Additional agencies and personnel were: FAA-7, DOC-15, DOI-36, EPA-5, Navy SUPSALV-19, USDA-4.  
 The spill estimate remained approximately 250,000 barrels.

XXXX *ADN*: As of Saturday evening, the bird rescue hospital had received a total of 59 birds and 32 otters, one of which died on the washing table. The otters, which took five people two hours to wash and required extensive veterinary treatment, overwhelmed the hospital, and several were sent to the Lower 48 for weeks of rehabilitation.  
 (Otters are the only marine mammal lacking a protective layer of blubber beneath their hide. They depend totally on their dense fur for warmth and flotation. When that fur gets dirty, the otter dies.)  
 There were 4,000-6,000 of these animals in PWS. No one knew how many would come in contact with the oil.  
 Cleaning one bird successfully took about an hour and required 150 gallons of water at 104 degrees. (Oil mats the feathers of birds, and that leads to death in a number of ways: matted underfeathers or down cease to insulate and birds die of hypothermia; oil-coated feathers make it impossible for the birds to fly to safe areas; birds exhaust themselves trying to stay afloat after oil destroys the water repellency of their feathers.)

XXXX *ADES*: Valdez Airport had its third highest day of traffic since the oil spill on March 24 -- 613 flights into or out of the airport. The AK ARNG flew four missions for ADEC and two for another state agency.

2400 *USCG POLREP TWENTY*: 311(k) expenditures now totalled \$1,932,244.

2400 *EXXON*: The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 799: 60 Exxon employees on-site, 347 contract personnel, 261 contract fishing personnel in Valdez, and an estimated 131 contract fishing personnel in Cordova.  
 Eighty-five tons of air cargo arrived today including boom, pumps, skimmers and U.S. Navy equipment. 104 vessels were deployed as were 86,000 boom feet, 13 skimmers, and 14 aircraft.



DAY NINE (Saturday, April 1)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

SUNDAY, APRIL 2, 1989

DAY TEN

## Approximate Alaska Local Time

0200            Clocks were officially advanced one hour for the start of Daylight Savings Time.

0706            *USAF*: Valdez sunrise.

2033            *USAF*: Valdez sunset.

0500            *EXXON*: 200,894 barrels remained aboard the EXXON VALDEZ.

0600            *EXXON*: Eight pumps on-line. 200,000 barrels left aboard the EXXON VALDEZ.

0730            *ADN*: In Anchorage, Rod Bradley, head of Bradley Advertising, Inc., a major Alaska advertising agency, was awakened by a telephone call from Exxon's Cornett. Cornett told Bradley that Exxon was willing to help finance a major public relations campaign to assist Alaska tourism and fishing industries and directed Bradley to come up with a multi-media plan.

XXXX            *ADN*: NTSB investigators were considering the "remote possibility" that the EXXON VALDEZ was trying to shoot a gap between Reef Island and Bligh Reef that would cut an hour from the tanker's voyage. (Rumors had persisted in Valdez for years that tankers have slipped between the island and the reef, but not one reliable witness has been found who ever saw such a tanker make such a maneuver.)

0900            *ADEC*: The EXXON SAN FRANCISCO had taken 417,478 barrels.

0900            *NRT/USCG*: At wildlife cleaning centers, 28 oiled otters and 49 oiled birds were being treated. Approximately 140 oiled birds per square mile were found in Gibbon Anchorage area (in the middle of the northwest side of Green Island). USDOJ estimated very high wildlife mortality rates.

--              *USCG POLREP TWENTY*: Even unoiled beach areas had high mortality rates -- approximately 145 clean, 21 oiled, and three dead birds per mile of beach in Stockdale Harbor.

XXXX            *NRT/USCG*: Using USCG AIREYE, USNOAA reported the leading edge of the spill was approximately nine miles south of Cape Resurrection, progressing southwestward.

                Beach cleanup at Naked, Peak, and Smith Islands began as response teams gathered growing cleanup manpower and pooled special skills. The Exxon team totalled 160 persons now, including experts from the U.S., Canada, and the United Kingdom. The company had hired over 350 additional clean-up workers. Nearly 100 vessels were actively participating in the response.

                336,853 barrels of oil had been transferred from the EXXON VALDEZ to the EXXON SAN FRANCISCO. Exxon reported total quantity of oil recovered exceeded 10,000 barrels.

DAY TEN (Sunday, April 2)

Exxon visual overflight indicated lighter sheens of oil were flowing into GOA. Large concentrations of oil remained in Knight Island Passage and in bays and sounds on north end of Knight Island.

ADEC beach surveys on Eleanor Island, Ingot Island, and northern end of Knight Island showed heavy contamination.

XXXX *ADEC:* ADEC continued to focus its efforts on defensive measures to protect the three hatcheries and the wild stock area.

Oil now extended into the GOA through Montague Strait. Some had moved in an easterly direction towards Orca Bay. The slick was not expected to move much today. ADEC was watching for further easterly dispersion of the slick.

Current estimate of product lost from the EXXON VALDEZ was approximately 250,000 barrels. Booms still surrounded the vessel but were not very effective at containing the still-leaking oil.

The Alaska State Ferry Bartlett, carrying about 40 fishermen under contract to ADEC, was due this morning to begin cleanup of oil in waters near Port San Juan.

0930 *USCG POLREP TWENTY:* Exxon overflight of the Port San Juan Hatchery at Sawmill Bay reported no sheen inside sorbent boom and only a very small sheen trapped between the barrier and sorbent booms.

0930 *ADEC:* Current weather clear, winds northeast at 15 mph, seas three feet.

1030 *EXXON:* No. One main cargo pump was started to discharge starboard slop tank to EXXON SAN FRANCISCO.

1030 *USCG POLREP TWENTY:* Good skimming weather reported. Viscosity of oil recovered required that weir skimmers be cleaned at least once per hour to maintain good oil/water ratio.

1130 *USCG POLREP TWENTY:* The USCG met with Exxon concerning the timely reporting of recovered oil. Exxon was to report the quantity by 1700 daily.

Priority meeting was also held to hammer out short-term logistics needed for deployment of skimmers and equipment now in Valdez. Team included USCG, Exxon, fishermen's groups, and state representatives.

XXAM *USCG POLREP TWENTY:* Commanding officer of the PACAREA Strike Team was on board the MSO, Valdez, to assist in logistics. His assessment was that there existed a backlog of skimmers waiting to offload recovered oil into barges.

Exxon reported total quantity recovered was in excess of 10,000 barrels.

Deployment of nine rope-mop type and nine smaller skimmers which recently arrived was moving ahead. Five Navy skimmers, boom, and 21 personnel had arrived Elmendorf and were being transported to Valdez.

1200 *ADEC:* A barge from Seward arrived this morning with an industrial vacuum loader commonly called the "Super Sucker." Plans were to corral oil in Knight Passage and remove it with the "Super Sucker." This was a cooperative effort with Cordova fishermen and ADEC staff.

-- *O'DONOGHUE:* The "Super Sucker" vacuum truck was one of four brought down from the North Slope oil fields. It was rigged to suck crude out of the water, then deposit it into the hold of the barge.

1200 *ADEC*: A delegation of Norwegian oil-spill experts met with ADEC and state officials, representatives of CDFU, and a USCG representative. They also took an overflight of the spill. A second meeting, which was to also include representatives from Exxon, was scheduled for this evening.

The Norwegians included the assistant director general for oil spill control of the State Pollution Control Authority, two executives from the Center for Oil Pollution Control, the first executive officer of the Directorate for Nature Management, and an individual from the Science Institute for Nature Research.

1210 *USCG POLREP TWENTY-ONE*: The USCGC Sedge and the Strike Team barrier skimmer had recovered 1,264 barrels of oil. Effort was concentrated in critical South Knight Island/Evans Island Area.

1300 *EXXON*: Cargo to EXXON SAN FRANCISCO was finished.

1300 *NRT/USCG*: EXXON SAN FRANCISCO was loaded to its capacity of 452,533 barrels.

FOSC CDR McCall had granted Exxon's request to apply dispersants to the slick sighted south of Point Erlington. Results of the application were not satisfactory on the main body of the oil. The dispersants were moderately effective in breaking up the surrounding oil sheen.

*[AOSC NOTE: It would appear that the dispersant test referred to here is the one the ARRT is later told took place in the morning.]*

XXXX *ADEC*: An approved test of a chemical dispersant was conducted during the afternoon in the GOA. SOSC Lamoreaux observed the test, which involved dropping the dispersant from an aircraft. Lamoreaux called the results "marginal at best." The chemical appeared to work on light sheens of oil but was ineffective on thicker concentrations of crude, he reported.

*[AOSC NOTE: See above note.]*

-- *PWSCA/ADEC*: Dispersant was applied southwest of Montague Island. ADFG did not know about the drop beforehand (and noted so the next day in a memorandum to ADEC).

*[AOSC NOTE: See above note.]*

1300 *USCG POLREP TWENTY*: Approximately 57,000 barrels remained to be lightered.

1330 *USCG-ARRT*: Primary attendees at the ARRT teleconference were EPA-Lautenberger, DOI-Gates, DOC-Becker, USDA-Paul, ADEC-Kent, USCG MSO Valdez-Capt. Haines and CDR Rome; USCGD17-LCDR Tiernan and LT Carey. Other attendees represented ADFG; USDOJ-BLM, MMS, FWS and NPS; USDOD-ACOE; USDOC-NMFS and NWS; Canadian CG; and the Government of British Columbia.

The FOSC was on scene for dispersant application this morning off Point Erlington.

U.S. Navy boom located in Williamsburg, Va., was requested. Canadian CG equipment, including oil mops and skimmers, was enroute from the Beaufort Sea and Newfoundland along with four operators. U.S. Customs had been alerted to the incoming gear and was aware of the urgent need for same. Four Norwegians arrived on scene today to assist in the cleanup effort.

The Shoreline Cleanup Committee had prioritized shoreline cleanup into eight levels. The Salvage Committee had decided to move the EXXON VALDEZ to Outside Bay on Naked Island for temporary repairs.

Four mobile weather stations were received. Two were in place already at the northeast corner of Sawmill Bay and at the southern tip of Latouche Island. Another was to be set up on Montague or Green Island while the location for the fourth had not been decided.

The ARRT was concerned about how to address volunteers coming to PWS to clean the shoreline areas. A press release was planned.

XXXX *EXXON*: A new Shoreline Cleanup Priority Committee was formed.

-- *USEPA*: The new Interagency Shoreline Cleanup Committee (ISCC), on which USEPA was invited to serve, would be addressing both shoreline cleaning priorities and the disposal of oil and oiled solid waste.

-- *USNOAA*: Exxon, state, and federal representatives met on beach cleanup priorities. Attendees agreed that the most efficient cleanup strategies should be developed. The top eight cleanup priority areas, subject to change, were: (1) San Juan hatchery, (2) Naked Island complex, including Bass Island but excluding Outside Bay until EXXON VALDEZ tanker operations were complete, (3) heavy concentrations of oil on shoreline with the potential to refloat in northern range of impact area, (4) north end of Montague Island, south of Port Chalmers to Zaikof Point, (5) sea lion haulout areas at Applegate Rocks and Seal Island, (6) anadromous fish streams, (7) areas of use by Chenega Bay residents, and (8) shorebird flyway stopover areas. Additional areas of subsistence were to be added as more information became available.

*[AOSC NOTE: According to McClintock, when the state informed Chenega Bay that the community was low priority for cleanup, it was like a poor April Fool's joke. The community was to rally by contacting everybody in government that they could think of and discovered that the government was responsive to pressure. Chenega Bay did become high priority.]*

1400 *EXXON*: Lightening hoses were disconnected (from the EXXON SAN FRANCISCO).

The EXXON BAYTOWN, piloted by Pilot J. Hurd, was underway to lighter the EXXON VALDEZ.

1400 *NRT/USCG*: Exxon reported 943,000 barrels of oil transferred from EXXON VALDEZ to EXXON BATON ROUGE and EXXON SAN FRANCISCO.

1530 *NRT/USCG*: EXXON BAYTOWN was alongside EXXON VALDEZ for continuation of oil transfer.

1600 *NRT/USCG*: One-hundred fifty birds treated and 30 sea otters recovered. Once treated, otters were transported to various aquariums.

XXPM *USNOAA*: Oil leading edge was abeam Resurrection bay, in a broadening fan with inside edge approximately one-two miles from shore.

During a beach survey in three areas of Naked Island complex, oil was varied from no occurrences to widely scattered droplets of emulsified oil in the intertidal zone and tar balls along the shoreline. Stranded oil readily rose to the water surface when immersed at the water line.

Oil was working its way south through Prince of Wales passage. Heavy oil was observed at Seal Island and Applegate Rocks where several dead birds and a dead sea otter were seen.

1600 *USCG POLREP TWENTY-ONE: One-hundred fifty birds had been or were being treated. Thirty sea otters had been recovered. 11 had died, none had been released. Plans were to transport rehabilitated otters to various aquariums.*

1611 *EXXON: Last line.*

1630 *EXXON: EXXON SAN FRANCISCO clear of EXXON VALDEZ. Cargo aboard the SAN FRANCISCO was 402,707 barrels (GSV).  
[AOSC NOTE: Based on a total cargo of 1,263,000 barrels minus Exxon's figure of 258,000 barrels spilled into PWS, 86 percent of the remaining cargo had now been removed.]*

1630 *USCG POLREP TWENTY-ONE: The USCG requested for Exxon more boom and logistical support from the Navy.  
T/V EXXON SAN FRANCISCO was away.*

1705 *EXXON: Tugs Crusader and Stalwart were alongside the EXXON BAYTOWN.*

1754 *EXXON: First line.*

1900 *USCG POLREP TWENTY-ONE: T/V BAYTOWN was alongside T/V EXXON VALDEZ.*

1915 *EXXON: EXXON BAYTOWN was all fast.*

2000 *EXXON: Two six-inch lightering hoses were connected.*

2030 *EXXON: Cargo transfer from the EXXON VALDEZ to the EXXON BAYTOWN started.*

XXPM *NRT/USCG: By evening, southern extent of the spill had progressed further south and was 12 miles southwest of southern tip of Montague Island. Small stringers of oil were sighted in the Bainbridge and Prince of Wales Passages. Light sheen remained in all passages. Three main streams of oil were flowing into the GOA and were currently four to five miles offshore.  
USNOAA weather stations were set up at northwest corner of Sawmill Bay and southern tip of Latouche Island.*

XXPM *USCG POLREP TWENTY-ONE: Remote weather stations were set up at the northwest corner of Sawmill Bay and the southern tip of Latouche Island. They were to be used in projecting oil movement and in providing on-scene weather for cleanup operations.  
Exxon reported that the Soviet skimmer was not suitable for the type of oil now being skimmed.  
The outside harbor on Naked Island was selected for the temporary repairs to the EXXON VALDEZ.  
Exxon now employed 300 people. Twelve skimmers were deployed: three Vikoma Sea Skimmers, two MARCO skimmers, one W-4 Walosep, one W-2 Walosep, one GT-185 and one ODI skimmer at Snug Harbor; a "Hydvac Super Sucker" vacuum*

DAY TEN (Sunday, April 2)

at Sawmill Bay; a USCG skimmer at Point Helen; and one MARCO Navy skimmer at Latouche Pass. Five more skimmers were being readied for deployment: two oil mop skimmers, one W-1 Walosep, and one Vikoma Sea Pack. 111,000 feet of boom was deployed including 7,000 feet around the vessel.

The Canadian CG was sending three skimmers and spare parts from Tuktoyuktuk via road; five skimmers and four personnel were to be flown in from Newfoundland.

USNOAA predicted that oil would not impact shoreline in Seward and would probably not enter Resurrection Bay due to fresh water outflow which should tend to push it south. Some spattering of shorelines on the Gulf of Alaska might still occur.

XXXX *ADES:* Preparations for the new state "all-agency" EOC delayed printing of the EOC and other operations bulletins. Approximately 9,000 square feet would be utilized at the new facility.

The USCG advised that four staff from the Canadian CG (one from Vancouver, one from the Northwest Territories, and two from Newfoundland) were flying in and oil skimmers were being transported from Tuktoyuktuk and Newfoundland.

About relations with Canada, concern was heard that the majority of bird kills here were subject to international migratory bird acts.

2200 *USCG POLREP TWENTY-ONE:* Estimated time of commencement of lightering operations to EXXON BAYTOWN.

XXXX *ADN:* The USCG advised Alyeska that it would drop the daylight-only restriction on tanker traffic. After state officials protested, the USCG reversed its decision.

XXXX *USCG POLREP THIRTY-FIVE:* Twelve skimmers were operating and the cumulative total recovered was 10,000 barrels, or 1,800 more than two days ago.

XXXX *ADES:* Traffic at the Valdez Airport included 502 incoming or outgoing flights. AK ANG had two C-130 missions.

2400 *EXXON:* The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 817: 72 Exxon employees on-site, 367 contract personnel, 252 contract fishing personnel in Valdez, and an estimated 126 contract fishing personnel in Cordova.

189 tons of air cargo arrived today including skimmers, beach cleanup equipment, booms, U.S. Navy equipment, dispersants, and pumps. 107 vessels were deployed as were 111,000 boom feet, 13 skimmers, and an 18 aircraft.

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

MONDAY, APRIL 3, 1989  
DAY ELEVEN

## Approximate Alaska Local Time

0703      *USAF*: Valdez sunrise.  
2036      *USAF*: Valdez sunset.

0643      *EXXON*: Third six-inch lightering hose was connected to the EXXON BAYTOWN.

0700      *EXXON*: Seven pumps were in use. Ninety-seven thousand barrels were left aboard the EXXON VALDEZ.

0800      *USCG POLREP TWENTY-ONE*: Lightering continued to the EXXON BAYTOWN. Only six percent of the cargo, 94,652 barrels, remained to lighter.

XXXX      *USCG POLREP TWENTY-TWO*: Spill estimate was still 250,000 barrels.  
Exxon overflight reported oil movement somewhat less than expected due to light winds. Twenty-five to 30 percent coverage of light sheen remained in all passages between Bainbridge and Latouche Passages. Three streams of oil were flowing into the GOA south of these areas. Oil in the GOA was currently four-five miles offshore (inner edge) of Resurrection Bay and had formed a Delta-shaped plume. Some general movement of oil in a southerly direction had occurred in PWS. The slick in Montague Strait was still offshore.

The battle for Sawmill Bay continued. Booms were deployed across the entrance to Port San Juan Hatchery. Some light sheen had been observed between the first and second booms now in place. The Alaska State Ferry Bartlett, chartered by Exxon, reported recovery of 300 barrels of product from the Crab Bay area in this vicinity. The USCG and Navy SUPSALV were to design and implement a mooring system for speedy deployment of 42-inch boom at Sawmill Bay.

Areas where the presence of cleanup crews would be more detrimental than the presence of oil were pinpointed as the southwest corner of Eleanor Island, north side of Smith Island, southern two-thirds of Green Island, and all marshes and tidal flats. The ISCC was mapping shoreline impact areas.

Tanker traffic was permitted only during daylight hours between Bligh Reef and the AMT under a two-tug escort for both inbound and outbound tankers. The area between Entrance Island and Bligh Reef was a one-way traffic zone for vessels subject to participation in the USCG Vessel Traffic System. On the average, four tankers a day had transited during daylight hours since reopening the Port of Valdez on Tuesday, 28 March 1989. Presently, nine tankers were at anchor at Knowles Head and three tankers were moored at AMT berths.

Weather on-scene: Wind and seas calm, 42 degrees.

CDFU contacted three herring spotters and aircraft to plot slicks for skimmer operators. Some skimmer operators reported frustration in locating recoverable oil.

Two "Super Sucker" vacuum trucks were being deployed.

XXXX      *ADEC*: At Sawmill Bay, Evans Island, some light oil sheen had gotten past the boom strung across the Bay entrance to protect the Port San Juan hatchery. So far, no thick black crude was past the boom but it was threatening to.

DAY ELEVEN (Monday, April 3)



A sheen of oil was still in the water near the EXXON VALDEZ. The vessel continued to leak slowly. Oil covered the majority of southwestern PWS and extended approximately 70 miles into the GOA. Total area covered was over 1600 square miles.

XXXX *USNPS:* As of this morning, leading tendrils of oil were three miles off the Chiswell Islands in the Alaska Maritime National Wildlife Refuge and ten miles off the mouth of Resurrection bay. The City of Seward had placed booms in Humpy Cove and Thumb Cove (outside of KFNP) to protect significant salmon streams and was to place booms during the day on Pederson Lagoon in Aialik Bay (inside KFNP) for the same reason.

The ICT sent boats and aircraft along the coast for resource assessments. In addition to the 13-member interagency team, the ICT had 45 people assigned to it. An additional 20 USNPS Alaska Regional Office personnel were working on the spill.

**The USCG was now commanding Seward-based efforts out of Anchorage and the USNPS and the ICT were taking actions with CG clearance.**

XXXX *O'DONOGHUE:* The USCG bowed to objections from state officials and reimposed the ban on night tanker travel through the Sound.

XXXX *USEPA:* The USCG and USEPA agreed that Exxon should commit resources to skimming areas in the GOA.

EPA had a different staff person assigned to each of these regional responsibilities: incident coordination, Valdez; incident coordination, Anchorage; USCG liaison; state liaison; USNOAA liaison; ISCC representative; fate (sic) and transport representative; Seattle regional contact.

Kellogg was drafting USEPA's damage-assessment strategy and was coordinating his efforts with USNOAA. He sought input from Region One concerning its experience. EPA would be calling NOAA to try to get it going on damage assessment. EPA Region 10's Bob Jacobson arrived in Valdez to serve as ADEC's press officer. Region 10 might be sending someone to Alaska to help with the FBI investigation.

XXXX *ADEC:* The Alaska State Ferry Aurora left Valdez in the morning to relieve the ferry Bartlett at Sawmill Bay. The Bartlett was anchored off Chenega Village in Sawmill Bay. A barge anchored next to the ferry was used for a helicopter pad.

XXXX *ADFG:* Exxon Chairman L.G. Rawl apologized on national television for the EXXON VALDEZ oil spill.

USDOI Secretary Lujan called the spill the petroleum industry's "Three Mile Island."

0956 *USCG POLREP TWENTY-TWO:* USCGC Sedge reported their skimming boom had separated from their barge due to a broken pad-eye and requested a lightering barge.

1130 *USCG POLREP TWENTY-TWO:* FOSC McCall, ARRT, and interested agencies met to iron out possible use of dispersants and skimmers if there was additional oil when the EXXON VALDEZ was moved.

1135 *USCG POLREP TWENTY-TWO:* The first Exxon quarters barge (50 people capacity) was enroute. A quarters barge (100 people capacity) was to follow.

- 1140 *USCG POLREP TWENTY-TWO:* Kenai Borough and City of Seward representatives addressed the Operations Committee about their fears and contingency plans. Placement of a Kenai representative on the committee was recommended. USNOAA still predicted that oil would not enter Resurrection Bay.
- *USNOAA:* The Operations Committee heard that oil was moving a few miles to the south each day. The dispersant application of April 2 and the deficiencies in the way it was applied were discussed. A Kenai Borough representative briefed on the new organization forming in Seward.
- *PWSCA/ADEC:* The Operating Committee agreed it was beneficial for the USCG's FOSC to consult with ADEC and ADFG before authorizing dispersant use in Zone Three.
- 11XX *O'DONOGHUE:* Shortly before noon, ADFG officials cancelled the commercial herring fishing season in PWS which had been scheduled to open today. Herring were especially vulnerable to oil poisoning because they traditionally spawn at low tide near islands hit hard by the slick. The \$12 million herring season was the first of the major commercial fisheries lost to the spill.
- *ADFG:* As a result of oil spilled from the EXXON VALDEZ, herring fisheries in PWS -- gillnet and purse seine sac roe and pound and wild roe-on help -- were canceled. In 1988, this fishery was worth about \$12.2 million, with a harvest totalling about 10,000 tons.
- *NRT/USCG:* ADFG cancelled all herring fishing in PWS based on damage to spawning areas.
- *ADEC:* The ADFG closed the PWS herring fishery for 1989 due to the effects of the oil spill. Eighty-seven percent of herring spawn areas were heavily oiled. Last year, the fishery produced more than 10,000 tons of fish.
- 1200 *ADFG:* The pot shrimp fishery in PWS was closed while in progress because of the high potential for direct contact of gear and catch with oil. The closure was anticipated to run until the fishery was scheduled to reopen by regulation August 15. In 1988 the fishery was 160,000 lbs., valued at \$510,000.
- 1300 *USCG WAK POLREP ONE:* No reported oil impacts on shoreline west of Cape Puget, the boundary between FOSC PWS and FOSC Western Alaska (WAK) zones. The FOSC PWS authorized expenditure of \$50,000 to stage equipment in response to threat posed to GOA coastline.
- FOSC WAK and USNPS representatives met and discussed possible impacts to KFNPA area and the need to identify and prioritize areas to be protected. A federal spill response in the Seward/Kenai Fjords area would be coordinated by the USCG MSO, Anchorage.*
- [AOSC NOTE: CAPT Rene Roussel, chief of the USCG MSO, Anchorage, was the FOSC WAK.]*
- 1310 *USCG WAK POLREP ONE:* FOSC WAK requested USNPS to provide space for a USCG observer on their daily overflights.
- 1330 *USCG POLREP TWENTY-THREE:* ARRT held a teleconference with MSOs in Valdez, Anchorage, Juneau. The ARRT felt a potential spill scenario must be

developed for possible impact on GOA shoreline. If oil impacts MSO Anchorage zone, the USCG would treat it as a separate spill response.

-- *USNOAA*: At the ARRT meeting, concern was heard from Alaska U.S. Senator Murkowski and the MSO Valdez on the trajectory of oil out in the Gulf of Alaska.

-- *USNPS*: About 20 miles offshore of KFNPN was a large body of oil, about 15-25 miles wide, made up of oil that had come out of Montague and Bainbridge passages and reformed as a single body. Winds and freshwater flows were keeping oil offshore, according to information presented at the ARRT meeting.

-- *USCG-ARRT*: Primary members at the ARRT teleconference were USEPA-Lautenberger, USDOC-Gates, USDOJ-Becker, USDA-Paul, ADEC-Kent, USCG MSO Valdez-CAPT Haines and CDR Rome, USCGD17-LCDR Tiernan, LT Carey. Other attendees included USDOC-NWS and NOAA; USDOJ-MMS, NPS, and BLM; USDOD-ACOE; USDA-FS; ADES; and ADFG.

If oil impacted the MSO Anchorage, it would be treated as a separate spill. Exxon would have to establish a second operations base in the Anchorage zone. A major concern of the ARRT was for information flow to the Anchorage zone and stockpiling of equipment as the oil moved into the GOA and down the Kenai Peninsula.

Plans for salvage of the EXXON VALDEZ were continuing. The use of dispersants in Zone One in the event a spill occurred during the refloating was being considered.

VECO, the company responsible for personnel recruitment of Exxon, was meeting with resource agencies to ensure proper training of shoreline cleanup person. Exxon had prepared an extensive training manual for shoreline cleanup personnel.

Exxon had requested the services of a Soviet skimmer.

State and USNOAA representatives were meeting to work out details for preparation and distribution of one joint map of the spill site.

All four weather stations were in operation. The last two were placed on Johnstone Point and on Perry Island.

1400 *NRT/USCG*: New remote weather stations were established at northeast point of Sawmill Bay, Dangerous Island, and Perry Island.

-- *USCG POLREP TWENTY-THREE*: Four remote weather stations, installed by the USDOC-NWS through USDOJ-BLM at Dangerous Island, northeast Sawmill Area, Johnstone Point (on Hinchinbrook Island), and Perry Island, were operational and data was now available.

1414 *USCG POLREP TWENTY-THREE*: RADM Nelson, Commander of USCGD17, Juneau, returned to Valdez.

1500 *EXXON*: 70,404 barrels remained on the EXXON VALDEZ.

1700 *USCG WAK POLREP ONE*: FOSC WAK contacted the KFNPN superintendent to coordinate federal response in that area.

1700 *ADEC*: The total area of the oil spill was 2,600 square miles.

1800 *USCG WAK POLREP ONE:* FOSC WAK contacted Exxon Command post to request assistance on staging booms, skimmers, and barges to respond to oil in GOA possibly threatening Kenai Fjords, Cook Inlet, and Kodiak.

XXPM *USCG POLREP TWENTY-THREE.* USCG overflight reported the following deployment and activities: Sawmill Bay, Evans Island, 50,00 feet protection boom, 15 vessels with two Navy Marco Class V skimmers, one vacuum truck, one vessel-mounted Framo skimmer, one tank barge, and Exxon's on-scene command vessel; Galena Bay, deflection boom; Naked Island, beach cleanup; Head Main Bay, boom with one vessel tending; hatchery inland on Main bay, boom; Herring Bay, Knight Island, boom being used by five vessels to capture and secure oil for later pickup by skimmers; Point Helens, Knight Island, boom for containment/collection; Snug Harbor, Knight Island, boom, one Walosep and one Framo skimmer mounted on vessel; Bay of Isles, Knight Island, boom with one Walosep skimmer mounted on vessel; Applegate Rocks, USCG barrier skimmer and 35,000 barrel barge towed by USCGC Sedge and vessel of opportunity; Busby Island, boom for containment/collection; EXXON VALDEZ, 6,000 feet of boom surrounding vessel.

1941 *NRT/USCG:* USCGC Sedge reported 8,949 barrels of oil recovered by USCG OWOCRS.

2000 *NRT/USCG:* Skimming operations progressed with oil recovery rates approaching 90 percent.

XXPM *PWSCA/ADEC:* The Salvage Committee met and ADEC indicated it was opposed to dispersant use in Zone Three as the tanker was taken to the temporary repair anchorage in Outside Bay.  
 In a memorandum to SOSC Lamoreaux, Bruce Baker of ADFG indicated ADFG did not know in advance of a dispersant drop on April 2 southwest of Montague Island. Had we known of the drop beforehand, Baker indicated, we would have questioned the efficacy of such an application on weathered oil and would have pointed out the presence of schools of rearing herring that occupied the approximate area between Latouche Island and the Chiswell Islands.

XXXX *USNOAA:* At the Operations Committee meeting, Exxon was advised to develop contingency plans for oil coming ashore on the South Kenai Peninsula. Exxon presented a preliminary plan for disposal of oil debris, carcasses, and bulk and liquified oil. Most of the disposal would involve incineration at the AMT and field units.  
 The Resource Assessment Committee heard concerns about live animals eating dead oiled animals and the need for dead animal pickup. Stress was being seen on animals where there was not yet wholesale mortality.

2100 *NRT/USCG:* Oil had not yet been sighted on shorelines west of Cape Puget, the boundary between Valdez and Anchorage (WAK) FOSCs. Anchorage FOSC had sent a representative to PWS. Preparations were started to protect against possible movement of oil into GOA.

2200 *USCG POLREP TWENTY-FOUR:* Videotapes from USCG Cutters Rush, Sedge, and Ironwood were delivered to MSO, Valdez.

2210 *USCG POLREP TWENTY-TWO:* Quantity recovered by USCG barrier skimmer was estimated at 1,420 barrels.

DAY ELEVEN (Monday, April 3)

XXPM *EXXON*: Planning continued for the EXXON VALDEZ float-off, including deck modifications which were under way.

XXXX *ADN*: Officials from BP Exploration stated that Alaska crude oil prices on the West and Gulf coasts had jumped, partly because of a shortage created by the EXXON VALDEZ oil spill.  
 Meanwhile, the flow in the trans-Alaska pipeline, which was reduced by 60 percent after the spill, was increased to 1.7 million barrels daily, still below its normal 2.1 million barrels-per-day level.

XXXX *USFWS*: 197 live birds had been brought into Valdez of which 152 were still alive. 145 dead birds were being stored in the freezer van. 139 live and dead otters had been brought to Valdez. Of these, 69 were dead otters stored in the freezer van. Six live otters had been sent to Sea World in San Diego and three of these had died. The remaining 67 otters were recovering in the holding facility.  
 USFWS prepared a beach survey form for all cleanup vessels to document bird and otter mortality. Twenty-three USFWS personnel plus three volunteers were now on site.

XXXX *ADES*: At Valdez airport there were 323 flight arrivals or departures. The AK ARNG flew three missions carrying 20,000 pounds of cargo for Exxon. There were two AK ANG C-12 missions and two C-130 missions.

XXPM *USCG POLREP TWENTY-THREE*: Weather over the past seven days had provided optimal conditions for boom and skimmer operations. Ninety percent boom efficiency and 85-90 percent recovery rates for oil and oil/water emulsions had been encountered. The amount of oil captured also had allowed pumping operations to realize very good oil/water ratios -- at least 50/50 for all systems and as high as 80/20 for others.  
 All of the skimming systems were mounted on a barge or other vessel of opportunity. Those that did not have integral tanks for holding recovered product such as the MARCOs had been provided with vessels which had 5-10,000 gallon portable tanks. When these systems were filled they offloaded to 35,000 barrel barges that stayed in their general vicinity. Additional tank barges would increase skimming time.  
 Oil continued to get thicker. Diaphragm pumps were having difficulty moving oil. Additional gravity-type progressive pumps were needed and being procured. Exxon was reconsidering possible use of the Soviet large skimming ship.  
 Detailed information requests were taxing the MSO, Valdez, spill staff. USEPA, responding to a state request, was providing 10 personnel to assist at ADEC regional offices. USNOAA was tasked by the FOSC with building additional large scale maps to include the leading edge of the slick and a 24-hour prediction of impact areas.  
 Reports indicated up to 20 environmental activists were currently in Valdez. Local police were monitoring their activities and a USES special agent was enroute. Spill estimate remained 250,000 barrels.  
 On-scene weather: northeast winds to 15 knots, seas to three feet.

XXXX *NAVSEA(SUPSALV)*: US Navy SUPSALV ESSM equipment requested for the Alaska oil spill cleanup, including eight boom vans, 14 mooring systems, one shop van, one rigging van, one command van, and one cleaning van, was staged at Travis AFB,

DAY ELEVEN (Monday, April 3)

Calif., and Norfolk Naval Air Station (NAS), Va.. MAC terminals awaiting proper-size aircraft to carry them to Elmendorf AFB.

2400

*EXXON*: The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 837: 80 Exxon employees on-site, 382 contract personnel, 250 contract fishing personnel in Valdez, and an estimated 125 contract fishing personnel in Cordova.

111 tons of air cargo arrived today including booms, skimmers, and U.S. Navy equipment. 107 vessels were deployed as were 115,000 boom feet, 16 skimmers, and 18 aircraft.

DAY ELEVEN (Monday, April 3)

DAY ELEVEN (*Monday, April 3*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

TUESDAY, APRIL 4, 1989

DAY TWELVE

## Approximate Alaska Local Time

0700 *USAF:* Valdez sunrise.

2038 *USAF:* Valdez sunset.

0700-2130 *NRT/USCG:* USCG Cutter Rush worked 329 aircraft and processed 1,867 radio contacts as part of air traffic control operations.

0800 *EXXON:* Transfer of cargo to the EXXON BAYTOWN was finished. 119,306 barrels (GSV) were removed.

0800 *ADES:* The leading edge of the oil slick was in the GOA, approximately abeam Resurrection Bay. Consistency of the oil slick had thickened instead of dispersing as predicted in the Gulf. Approximately 25-30 percent coverage of light oil sheen remained in all passages between Bainbridge and Latouche Passages. Three streams of oil were flowing into the GOA south of these areas. Oil in the GOA was currently four-five miles offshore of Resurrection Bay. The unsoiled beaches on the western side of Montague Island could be at risk if the wind shifted to north-northeast rather than northeast.

0800 *USCG WAK POLREP TWO:* FOSC WAK dispatched two representatives to Seward.

0800 *ADES:* The State EOC was augmented by personnel from other state agencies who had arrived in Valdez over the last few days. They included Jim Sellers, Governor's office; Jill O'Neill, ADMVA administration; Mark Johnson, ADHSS; Mike Murphy, Office of Management and Budget; AAG Brown; Jim Sampson, commissioner of the Department of Labor (ADOL); plus various AK NG, Naval Militia, and Incident Command Teams.

A major organizational effort was underway to establish a joint logistics operation between ADES, Exxon, ADEC, USCG, and the fishermen's organization.

0830 *USCG POLREP TWENTY-FOUR:* Navy boom which was destined for Sawmill Bay arrived at Elmendorf via C-5 to be trucked to Valdez. Crews at Sawmill Bay reported they were beginning to feel better about the protection around the hatchery.

0850 *EXXON:* Lightering hoses were disconnected.

0913 *EXXON:* Began letting go.

0957 *EXXON:* All clear - EXXON BAYTOWN.

XXXX *NRT/USCG:* Shoreline crews continued to operate at Smith and Naked Islands. Housing for work crews was provided by the barge Exxon II, located in Mummy Bay. Knight Island, and by the State Ferry M/V Bartlett (to be relieved later by the M/V Aurora) in Sawmill Bay.

DAY TWELVE (Tuesday, April 4)



Exxon had established a boat cleaning station in Valdez. CDFU was setting up another cleaning station in Cordova.

Health and safety training classes were set up by Exxon contacted tractors to provide mandatory training for all cleanup personnel.

Oil transfer from EXXON VALDEZ was completed by EXXON BAYTOWN. EXXON BAYTOWN was underway.

- XXXX *USEPA:* USEPA was trying to contact USNOAA's administrator to determine the status of resource damage assessment.
- 1030 *USCG WAK POLREP TWO:* FOSC WAK contacted harbor masters in Homer, Kodiak, and Whittier, regarding availability of boats to assist in boom deployment and pollution response. Also contacted Crowley Maritime, Foss, Martech, Unimar, and Brice Inc. regarding barge, skimmer, and boom availability, and Clean Sound regarding equipment availability.
- 1100 *USCG WAK POLREP TWO:* FOSC WAK representative attended Kodiak Disaster Council meeting. The representatives sent to Seward were on scene at the USNPS incident command post.
- 1200 *ADEC:* Snowing in Valdez but not at the cleanup site. Fixed-wing overflights of the spill were cancelled for the day due to low visibility.
- 1330 *USCG-ARRT:* Primary attendees at the ARRT teleconference were USEPA-Lautenberger, USDOC-Gates, USDOJ-Becker, USDA-Paul, ADEC-Lamoreaux, USCG MSO Valdez-CAPT Haines and CDR Rome, and USCGD17-LCDR Tiernan and LT Carey. Other agencies represented were USDOC-NOAA and NWS, USDA-FS, USDOJ-NPS and MMS, USDOJ-ACOE, ADFG, ADES, and Canadian CG.  
A plan for possible use of dispersants when the EXXON VALDEZ was refloated had been worked out.  
Exxon had requested from the Navy 13 MARCO Class V and two MARCO Class XI skimming systems. Six barrier skimming systems and four mooring systems were requested from the USCG. Transportation was to be by military aircraft.  
Satellite pictures were not available. One satellite would not function and the second was not able to locate the desired target.  
The ARRT wanted information on the resources at risk on the Kenai Peninsula. No meeting was scheduled for Wednesday because of the timing of the move of the EXXON VALDEZ.
- 1410 *USCG WAK POLREP TWO:* FOSC WAK discussed need for Exxon attention to potential threat to GOA coastline and Kodiak.
- 1413 *USCG POLREP TWENTY-FIVE:* Exxon Corporation had requested from the Navy SUPSALV the use of 13 additional Marco Class V skimming systems and two Class XI skimming systems. USDOJ transportation was requested by RADM Nelson, District Commander. In addition, RADM Nelson requested a separate dedicated shipment for five USCG barrier skimming systems with four mooring systems. Shipment to Elmendorf was to be made a high priority.
- 1501 *USCG POLREP TWENTY-FIVE:* USCGC Sedge had recovered 3,056 barrels to date.

- 1600 *USCG POLREP TWENTY-FOUR*: Salvage Subcommittee met to approve EXXON VALDEZ salvage action and pollution contingency plan. Health/Safety Subcommittee also met.
- 1600 *USCG WAK POLREP TWO*: FOSC WAK ordered 500 cases of oil snares from company in Seattle.
- XXXX *USCG POLREP TWENTY-FOUR*: Low visibility and snow showers kept aircraft from conducting overflights for visual assessments of oil movement.
- XXXX *USCG POLREP TWENTY-FOUR*: Exxon reported that some shoreline cleanup crews were operating on Naked and Smith Islands. The crews were only mopping up oil in tidal pools at this time to prevent further impact of shoreline.  
 An Exxon barge was now located in Mummy Bay, Knight Island, to provide housing for skimmer crews. An Alaska ferry was at Sawmill Bay to provide support and housing for skimmer and beach crews.  
 The Logistics Subcommittee had held three meetings and reported much progress in coordinating shipments and deployments between agencies.  
 Refloating of EXXON VALDEZ was intended for noon on April 5. USCGC Planetree and two USCG barrier skimmers were pre-staged in Homer, Alaska, and two USCG barrier skimmers were pre-staged in Kodiak, Alaska, for potential oil spill response. FOSC increased pressure on agencies for media coverage of the refloating of the EXXON VALDEZ. USCG vessels were to be used as media platforms.  
 The Exxon contractor was holding classes three times a day to provide mandatory health and safety training for cleanup personnel.  
 Gaugers reported 15,445 barrels left onboard the EXXON VALDEZ with a water bottom of 24-35 feet in each tank.  
 MARCO skimmers were recovering at a rate of 60-100 barrels/hour of oily-water mixture. The USCG barrier skimmer was recovering 100 barrels/hour of oily-water mixture.
- 1630 *O'DONOGHUE*: Fourteen lawsuits had been filed against Exxon and others claimed responsible for the spill.  
 While others focused on the damage caused by the spill, the Alaska Seafood Marketing Institute (ASMI) tried to protect its industry by spreading the word that not all of the fish in the state were poisoned by oil. ASMI sent letters to wholesale buyers and distributors outside the state, explaining that the oil had penetrated only one of Alaska's 15 commercial fishing regions.
- 1730 *USCG WAK POLREP TWO*: FOSC WAK contacted Exxon's Rassinier and requested Exxon provide skimmers, boom, and equipment to be staged in Seward, Homer, and Kodiak, for response efforts in those areas. He also scheduled a meeting in Seward for the next morning with Exxon representatives.
- XXXX *USCG WAK POLREP TWO*: The City of Seward and KFNP deployed boom within Resurrection Bay at Tonsina Creek, Thumb Cove, and Humpy Cove, and within Aialik Bay at Pederson Lagoon. These areas were deemed high priority by the Multi-Agency Coordinating (MAC) Group consisting of USNPS, ADFG, Kenai Borough, City of Seward, Alaska State Parks, Cook Inlet Seiners, North Pacific Fishermen's Association, and Exxon.
- 1930 *USCG WAK POLREP TWO*: FOSC WAK discussed need for additional boom to protect Resurrection River at head of Resurrection Bay.

DAY TWELVE (Tuesday, April 4)

1947 *USCG POLREP TWENTY-SIX*: Increase requested of 311(k) fund to \$5.5 million.

2000 *USCG WAK POLREP TWO*: Oil was sighted in Eldorado Narrows between Barwell Island and Rugged Island at the entrance to Resurrection Bay.

2200 *USCG POLREP TWENTY-FIVE*: Boom and skimmer coordination were strongly discussed at an evening operations meeting with Exxon. Deadlines for operations feedback and more accurate data were placed on Exxon. LCDR Reiter was to assume a stronger organizational role in the morning with respect to Exxon's operations and the Operations Committee.

XXPM *EXXON*: 16,508 barrels (later updated to 20,761 barrels) remained aboard EXXON VALDEZ.  
Refloating plans were completed and dry run held. Final equipment was checked for vessel float-off. All nonessential shoreside employees and regulatory officials began to leave the EXXON VALDEZ.

XXXX *ADES*: Exxon announced that its major procurement activities were being contracted out to VECO.

XXXX *USCG POLREP TWENTY-FIVE*: Exxon requested that the USDOD transport 5.2 km of high seas boom and support systems from Copenhagen, Denmark, to Elmendorf AFB. Letters of commitment were received from Exxon and Alyeska for cost reimbursement.  
USNOAA predicted Kodiak would be impacted to an unknown degree by the moving oil.  
311(k) expenditures to date had reached \$2,875,449.

XXXX *USFWS*: A heated otter-recovery facility, capable of holding 60-120 animals with 60 holding pools and 10 cleaning stations, plus two holding pens in Valdez harbor, was soon to be operational. The bird rescue facility was to expand to space vacated by the sea otter center.  
Cleanup crews reported sighting piles of oiled birds, presumably "stacked" by eagles.  
USFWS vessel Curlew arrived from Juneau with crew of six to do beach surveys of dead migratory birds. M/V Growler on lease from the U.S. Geological Survey (USGS) also arrived. It was to record otter behavior in response to oil, using binoculars from island bluffs.

XXXX *USNOAA*: Twenty-eight boats and approximately 100 people were in the field picking up dead and live birds and otters. PWS was divided into seven sectors; each had three collection boats and one transport boat. There was also to be a helicopter dedicated to this effort. Cordova was the command center.  
There were 25 water sampling stations and ADEC wanted seven more.

XXXX *EXXON*: Thirty boats and four aircraft were involved in the collection of wildlife which were brought to the Valdez bird and otter centers.

XXXX *ADMVA*: The Public Affairs Office of the ADMVA was setting up a Joint Agencies' Public Information Office in Valdez. It was directly submitting written news and video to the Office of the Assistant Secretary of Defense at the Pentagon.

XXXX *ADES:* A late report from Seward indicated that a CAP aircraft spotted an oil slick inside the mouth of Resurrection Bay between Barwell and Rugged Islands. The City of Seward deployed 10,000 feet of boom in an attempt to protect city and federal resources in the area and requested that Exxon provide additional boom to protect the Resurrection River.

XXXX *ADEC:* The USCG reinstated restrictions, earlier lifted, on tanker operations in the sound. The restrictions, including daylight-only navigation, were to remain in place until the USCG was satisfied that Alyeska could adequately handle another spill emergency.

Oil in the water had decomposed enough that burning was no longer feasible. Where skimmers were operating, there was still a shortage of lightering equipment to accept recovered oil. Communications with most skimmers was still poor.

The Governor's office was active in arranging for a 425-foot Soviet skimming ship to help clean up the oil. Exxon was sending inspectors to the ship before authorizing the venture.

XXXX *USCG POLREP TWENTY-FIVE:* The USCG Cutter Sedge reported recovery of oil was slowing due to thickening oil clogging up skimmer and pumps. Performance of the barrier skimmer had changed and it was expected that other system rates had also been reduced as the oil had weathered. A maximum of 10,500 barrels was aboard barges and additional oil had been collected in bladders and temporary storage tanks. Communications to the cleanup areas, which were approximately 100 miles from Valdez, were a problem. This meant information regarding recovery rates for the various devices was not available at this time. Exxon was being pressed for this information.

Two vessels were to be permitted to transit during daylight hours provided both were heading in the same direction and each had a two-tug escort. In accordance with a request from SOSC Lamoreaux, the separation between the two vessels was to be not less than 4,000 yards. Eight tanker vessels were at anchor awaiting entry, two tankers were outbound, two tankers were inbound to moorage, three tankers were moored at the AMT.

A USDOD Public Affairs team arrived in Valdez to document the involvement of military personnel, including the USCG, in the spill response.

Weather: Mixed rain and snow showers, northeast winds to 15 knots, seas to three feet, temperature low thirties to mid-forties.

XXXX *USCG POLREP THIRTY-FIVE:* Fifteen skimmer systems were operating and the cumulative total recovered was a minimum of 10,500 barrels.

XXXX *ADES:* Valdez Airport recorded its lightest day since the oil spill, only 78 arrivals or departures. Still, this was four times greater than a previously normal day at the airport. The AK ARNG flew four missions to bring cargo to Exxon.

2400 *EXXON:* The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 936: 82 Exxon employees on-site, 449 contract personnel, 270 contract fishing personnel in Valdez, and an estimated 135 contract fishing personnel in Cordova.

134 tons of air cargo arrived today including a skimmer, power packs, command center, and boom. 109 vessels were deployed as were 121,000 boom feet, 18 skimmers, and 18 aircraft.

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DAY TWELVE (Tuesday, April 4)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

WEDNESDAY, APRIL 5, 1989

DAY THIRTEEN

## Approximate Alaska Local Time

0656      *USAF*: Valdez sunrise.  
2041      *USAF*: Valdez sunset.

XXXX      *NRT/USCG*: Over 66,000 feet of boom was deployed in Sawmill Bay. This represented 65 percent of the total boom deployed. The FOSC had decided to deploy a significant amount of boom and skimmers in defensive positions to protect hatcheries, removing capacity to fight the spill itself.

USAF MAC airlifted U.S. Navy, USCG, and Exxon skimmer boats, drums of dispersant, mooring systems, boom vans, barrier material, and assorted vehicles from California, Oregon, Texas, Virginia, Denmark, and Finland. Exxon was to pay the airlift cost.

Fishermen at Sawmill Bay expressed confidence that hatcheries would be protected. Cleanup crews at a number of beach locations began to mop up oil in tidal pools.

Primary concentration of oil in PWS extended almost in a continuous sheen from Smith Island, between Knight and Green Islands, and down Montague Strait out into the GOA. Oil remained in passages between Bainbridge and Latouche Passages. A large slick had moved approximately 50 miles into the GOA, extending from southern outlets of the passages across Montague Strait.

Skimming rates continued to be reduced due to oil weathering.

The FOSC permitted transit of two vessels during daylight hours, provided they were heading in the same direction. Each vessel was required to have a two-tug escort.

USCGC Cutter Rush worked 127 air contacts and processed 500 radio contacts as part of air traffic control operations.

XXXX      *ADFG*: The oil slick covered 2,600 square miles.

In Washington, D.C., the Senate Committee on Commerce, Science, and Transportation and the Subcommittee on Merchant Marine and Fisheries of the House Interior Committee opened hearings on the spill.

XXXX      *ADEC*: The joint efforts of ADEC and CDFU at Sawmill Bay to protect the San Juan hatchery from oil appeared to have been successful so far. The battle was far from over, however, as oil continued to press against the barrier booms. About 20 additional workers were being sent to the scene raising their number to 60. There were also several fishing boats on scene with additional workers. The State Ferry Aurora had replaced the Bartlett as a cleanup base.

U.S. Rep. George Miller (D-Calif.) was expected to arrive in Valdez for an aerial inspection and briefing by ADEC Commissioner Kelso and ADFG biologists.

XXXX      *ADN*: According to information from NOAA officials, as much as two million gallons from the EXXON VALDEZ oil spill had already evaporated, turning from water pollution into air pollution. Additionally some of the oil had dissolved, was dissolving into the water, or had sunk.

DAY THIRTEEN (Wednesday, April 5)

XXAM *EXXON*: Remaining nonessential vessel crew and personnel left the *EXXON VALDEZ*. Only salvage team members stayed onboard.

0620 *EXXON*: Pilot Murphy was aboard the *EXXON VALDEZ*.

0700-0800 *EXXON*: Tugs were made fast: two on hawsers - bow, one on starboard bow, one on port bow, one on starboard quarter, one on port quarter. Began securing tanks, pressuring tanks.

0800 *ADES*: Valdez EOC operations were continuing 24 hours a day. The status of the center was as follows:

- Governor's Representative - involved in community relations at all levels.
- Operations - primarily focused on EOC organizational development and coordination with other organizations in oil spill activities.
- Communications - awaiting telephone parts from Anchorage for installation of the telephone system at the new EOC facility.
- Situation Analysis - already set up with maps and equipment at the new EOC; represented the EOC at the ARRT and tanker salvage operations meetings.
- Logistics - efforts to coordinate logistics efforts between ADES, ADEC, and Exxon were stalled due to Exxon's announcement that its major procurement activities were being contracted out to VECO. It appeared that the EOC logistics effort might have to be concentrated at the state level only.
- Administration - this section was being organized and two local hires were expected on board this week.
- Finance - was overseeing implementation by the EOC of new cost accounting methods developed by ADEC and the Division of Administrative Services in the Office of the Governor.
- Public Affairs - was making progress in setting up the Joint Public Information Center in a facility separate from the EOC.
- Public Health - Mark Johnson met with certified emergency medical technicians (EMTs) hired by VECO to set up an emergency medical response program for oil spill cleanup. Through his intervention, ADEC agreed to let VECO do the hiring of EMTs. The State EOC was evaluating the hire of a disaster psychologist to work with mental health professionals in the affected communities.
- Labor - the ADOL representative was to arrive shortly.
- ADCRA - the agency had one representative and an alternate to augment the EOC.
- Law -- AAG Brown was to move into the new quarters; presently she was working with ADEC at its Valdez operational headquarters.
- Public Safety -- a state trooper and two additional ADPS employees would be maintaining liaison with the Valdez police and Valdez-based state troopers.
- Commerce and Economic Development - active input in assessing impact of the spill was expected but as yet no augmentee had been designated.

0825 *EXXON*: Anchor aweigh.

XXXX *USCG POLREP TWENTY-SIX*: Low visibility conditions delayed morning overflight.

0900 *USCG POLREP TWENTY-FIVE*: The following equipment was to have been on-scene as part of the oil-spill contingency strategy for movement of the *EXXON VALDEZ* to Naked Island: two MARCO skimmers with two workboats each downwind of *EXXON VALDEZ* at float-off to contain and receiver release of oil

and/or trail tanker to Naked Island; W-4 Walosep skimmer and two support boats on site to back up MARCOs; tug/barge unit on site for containing oil from skimmers -- barge to have sufficient hose onboard to pump from all three skimmers simultaneously; existing 5-6,000 feet of boom around ship removed by workboats and available for additional support; all skimmers coordinated by spotter helicopter; 4,000 feet of 18-inch sea curtain at Outside Bay ready to be positioned by workboats after tanker was anchored safely.

The AMT Marcos were to be on stand-by status at the terminal while Exxon was to have in Valdez, ready for deployment, one oil mop skimmer, one W-4 Walosep, one Vikoma Sea Pack, two belt skimmers from France, and three U.S. Navy Marco V skimmers.

Additionally, the FOSC and a state herring spotter were to be on a skimmer, coordinating helicopter south of ship should dispersant use be necessary in a predetermined area. A C-130 and DC-6 were to be on standby in Anchorage loaded with dispersant.

0920 *EXXON*: Fenders away.

0930 *McCLINTOCK*: The City of Seldovia appointed City Fire Chief Frank Monsey as its emergency operations officer to plan that community's spill response. Despite assurances from the USCG that the oil wouldn't come to their community, the residents were worried. A core team was formed to identify volunteers and resources.

1000 *USCG WAK POLREP THREE*: The FOSC WAK met with the MAC Group in Seward to discuss the FOSC role and planned actions, then met with Exxon representatives.

1000 *ADES*: Air operations were able to resume.

1000-1500 *ADN*: For the third straight day, 82 men and three women wiped oil by hand off rocks on a 1,000 foot beach on the north side of Naked Island, for which they were paid about \$1,750 a week. They picked up sticky rocks, wiped each one off on oil-absorbent pads, and threw them back on the beach or in stacks of rocks or in miniature stone walls that they built.

They left Valdez at 0600 for the 3-4 hour trip on a high-speed boat to get here and then spent 45 minutes getting ashore by fishing boats which were anchored here around the clock to carry workers to shore. At 1500 they were to collect their gear to depart for Valdez.

Naked Island was the only place where scrubbing was being done now, largely because the oil slicks had moved southwest and cleaner water was washing ashore here than on many other islands. Also, Naked Island had an approachable rocky shoreline, whereas much of the hundreds of miles of coastline in PWS were made up of sheer cliffs and giant, half-submerged boulders, and were simply unreachable by people.

1015 *USCG POLREP TWENTY-EIGHT*: Exxon overflight reported protective booms deployed at Eshamy and Main Bays had parted. Two contract vessels tending these booms were dispatched to reconnect them.

1030 *EXXON*: The EXXON VALDEZ was afloat.

-- *USCG POLREP TWENTY-SIX*: T/V EXXON VALDEZ was refloated and holding position.

DAY THIRTEEN (Wednesday, April 5)



1035 *NRT/USCG*: EXXON VALDEZ was refloated after oil transfer operations and holding position on Bligh Reef. About 16,445 barrels of oil remained in the vessel. A 1,000-yard safety zone was established around the tanker. Two MARCO skimmers and a vacuum truck were aboard EXXON VALDEZ and the vessel was attended by workboats and dispersant-loaded aircraft on standby to respond to any additional spill. Transit of EXXON VALDEZ to Naked Island area began.

-- *O'DONOGHUE*: Inert gas pumped into the EXXON VALDEZ's cargo tanks created bubbles above the oily ballast water remaining on board. The expanding gas pockets forced water out of the gaping holes in the bottom of the ship, eventually providing enough buoyancy to lift the tanker off its rocky perch.

Timed to coincide with one of PWS's highest tides of the year, the boat was scheduled to lift off the reef at 1330. However, the 211,000-ton tanker floated free at 1035, beating both the tide and a horde of journalists who were taking a six-hour boat ride to witness the event.

-- *STATE/NTSB*: After oil was transferred from the EXXON VALDEZ, it was refloated by used of compressed air.

XXXX *ADEC*: When refloated, three-five inches of residual oil would remain in tanks of the EXXON VALDEZ on top of 25-30 feet of water.

1040 *USCG POLREP TWENTY-SIX*: NOAA resumed overflights of spill area.

XXXX *ADN*: Alaska's Congressional delegation, President Bush, and top administration officials met to discuss the administration's involvement in the EXXON VALDEZ oil spill response.

XXXX *USEPA*: John Cunningham, an expert on dispersants from the USEPA headquarter's staff, suggested that dispersants might be used again in an experimental fashion.

The National Response Team was preparing a 30-day report (to the President) on the oil spill. EPA was designated to participate in writing the "Incident" and "State of Preparedness" sections.

Two members of the Region 10 Air Operations Section traveled to Tacoma, Wash., to inspect the ocean incinerator Apollo I. It was hoped that the vessel might be used in Valdez to burn recovered oil. They determined that the vessel was suitable to burn liquid oil and water, but as outfitted had no ability to burn solid waste. Deck space, however, could be utilized for two incinerator units.

XXXX *ADFG*: In Valdez, U.S. Representative Miller went afield with ADFG and ADEC personnel.

XXXX *USCG POLREP TWENTY-SIX*: USDOJ established procedures for pick-up of dead and live animals. It had 28 vessels and 100 people in Cordova and six vessels in Whittier. DOI calculated that approximately 91,000 birds inhabited the area at the time of spill; 49.5 percent of these were in impacted areas.

Organization of spill response agencies and groups was being refined. The Steering Committee remained USCG, ADEC, and Exxon. The Operations Committee was to be reorganized into three committees to handle operations, logistics, and planning. On these committees were to be USCG, State of Alaska, Exxon, and CDFU. Operations and logistics were to be co-located.

The Operations Committee was pressing Exxon for daily printouts of material and equipment locations, deployments, and staging.

USCGC Sedge reported pumping rate of barrier skimmer system had been further reduced due to oil thickness. Total oil recovered to date by Sedge with PACAREA Strike Team Barrier, 3,056 barrels (128,352 gallons).

Weather, Valdez and vicinity: Sunny intervals, high mid forties, light winds. Tonight mostly cloudy with chance of patchy morning fog becoming partly cloudy.

1229 *USCG POLREP TWENTY-SEVEN:* USCGC Sedge reported thickness of oil prevented picking up additional oil.

1300 *USCG POLREP TWENTY-SIX:* EXXON VALDEZ was stable with flooded tanks holding. Light sheen observed astern was believed to be trapped oil washing out.

1330 *USNPS:* At the ARRT teleconference, the CG noted that the spill response would eventually stretch to an area half the size of the United States. Also noted was that most of the area can't be reached by roads, or when they can, the distances can be great. Valdez to Seward, which in a straight line are 130 miles apart, were 425 miles by road.

The ARRT also discussed the likelihood of oil stretching to Kodiak and Shelikof Strait. The USNWS forecast a 75-80 percent chance of a low-pressure system with 35-40 knot winds out of the south or southeast by Sunday. That increased the likelihood of oil reaching shore in Kenai Fjords, Katmai, and Lake Clark National Parks.

1420 *NRT/USCG:* USCGC Sedge reported recovery of oil was becoming extremely difficult due to formation of a water-and-oil emulsion or "mousse."

-- *USCG POLREP TWENTY-EIGHT:* USCG Cutter Sedge reported recovery of boomed oil was fruitless. Oil consistency was similar to No. Six fuel oil and diaphragm pumps were ineffective.

XXXX *USEPA:* Jeff Webb of USEPA was assisting in overflights of PWS and was attempting to get ADEC involved in joint USNOAA/USCG/Exxon air operations.

EPA Region 10 requested a damage assessment strategy from the U.S. Department of Justice (USDOJ).

XXXX *GOV'S OFFICE:* Sometime before 1500 this day, Governor Cowper signed a request to RADM Nelson, Commander, USCGD17, that the USCG immediately take over coordination of the EXXON VALDEZ oil spill response from Exxon. The Governor pointed out that less than four percent of the 240,000 spilled barrels had been recovered, several hundred miles of shoreline had been inundated with oil, and that the oil slick had escaped Prince William Sound and was now moving through the Gulf of Alaska, threatening other Alaska communities.

ADEC's Kent, the state representative to the ARRT, made a similar request through the ARRT by letter to Darryle Waldron, Commander, USCGD17, Juneau. Kent referenced Exxon's failure to respond to requests made through the Steering Committee for information necessary to make sound planning recommendations regarding the cleanup of oil and the protection of resources. Kent indicated that in response to this lack of effort on the part of Exxon, the various federal and state agencies had developed a response organization and implemented activities which should have been conducted by Exxon.

-- *USEPA:* USEPA's Jacobson assisted in writing Governor Cowper's letter to RADM Nelson. Jacobson was making arrangements for a news conference with the Governor in the morning.

XXXX *ADN:* Governor Cowper stated that he had talked to USCG RADM Edward Nelson, Jr., and was assured the military would assume command (of the oil spill response effort).

A troika -- RADM Nelson, ADEC Commissioner Kelso, and Exxon Shipping Company President Iarossi -- had been running the cleanup. Cowper said that as of Wednesday night the troika was out of business.

XXXX *USNPS:* The following areas in proximity to Seward and KFNP were boomed: Thumb Cove, Humpy Cove, and Tonsina Creek in Resurrection Bay and Pederson Lagoon in Aialik Bay. All were important commercial and sport fishing areas and provided heavy recreational or wildlife habitat.

In the afternoon, one oil report was that oil had hit Barwell Island, just off Cape Resurrection, and Seal Rocks, about eight miles southeast of Harris Peninsula and five miles south of Chiswell Islands. No oil was on the beaches of KFNP, although oil sheen was on the southeast side of the Chiswells curving north.

An overflight from Seward to Homer by the USNPS associate regional director for resources, Paul Haertel, reported oil sheen on most of the rocks along outer portions of peninsulas and bays of KFNP and elsewhere. He also reported mousse and oil throughout the Chiswell Islands, oil hitting Barwell Island just off Cape Resurrection, and oil in the Pye Islands at the south end of the park.

The ICT and the NPS Alaska Regional Office had a total of 78 people working on spill-related issues.

XXPM *USCG WAK POLREP THREE:* Agreements from Exxon included establishing a presence in Kodiak and Seward, directing and diverting equipment to Seward and Kodiak, and addressing the need for boat cleaning stations and wildlife rehabilitation facilities in Seward and Kodiak. It was expected that USCG assets would also be required in deployment and operation of equipment.

The Kodiak Disaster Council identified Kitoi State Fish Hatchery in Izhut Bay on Afognak Island as the number one priority for protection. Approximately 1,200 feet of cold weather boom and 1,300 feet of sea curtain were being prepared for possible deployment to protect the hatchery. FOSC WAK representatives were working with the Council and fishermen groups to move boom and oil snare to the hatchery site.

1812 *USCG WAK POLREP THREE:* FOSC WAK briefed USCGD17 regarding Exxon plans and requested additional personnel on scene in Seward, Kodiak, and Anchorage.

1935 *NRT/USCG:* EXXON VALDEZ was anchored in Outside Bay near Naked Island.

-- *ADEC:* The EXXON VALDEZ was successfully floated and towed to Outside Bay on Naked Island. Outside Bay was already oil contaminated. The tanker continued to leak some diluted oil.

-- *O'DONOGHUE:* Six tug boats hauled the damaged tanker 30 miles to a remote cove near Naked Island. The site was chosen because it already was badly polluted by the spill.

- 2030 *USCG POLREPS TWENTY-SEVEN and TWENTY-EIGHT: USCGC Ironwood had relieved the Sedge and was alongside T/V EXXON VALDEZ.*
- XXPM *O'DONOGHUE and ADN: Wednesday (afternoon or evening), Governor Cowper met in his office with chief executives of Alyeska's three major owner companies, BP Exploration, Exxon USA, and ARCO Alaska. A representative of BP Exploration would later only say that the meeting was very constructive.*
- The topic of the meeting appeared to have been a draft executive order, not yet released by the Governor, which demanded the creation of permanent storage sites stocked with cleanup equipment and the formation of a round-the-clock, 12-person, spill-response crew able to respond within two hours notice to a 258,000 barrel spill. The draft emergency order also included provisions that made company officials personally subject to heavy fines and criminal prosecutions if the request was not carried out.*
- [AOSC NOTE: The Governor announced what appears to be this emergency order in a press release dated Friday, April 7, which stated that the order was issued by ADEC that afternoon.]*
- 2201 *USCG POLREP TWENTY-SEVEN: RADM Nelson, ADEC Commissioner Kelso, and Exxon Shipping Company President Iarossi conducted a lengthy meeting to determine reorganization of operational control. Agreement was expected mid-morning.*
- XXXX *ADN: Despite Governor Cowper's statement that the Steering Committee troika was out of business, it was meeting in the Valdez CG MSO late Wednesday. Also, some time after he had spoken to Governor Cowper, RADM Nelson stated that the CG would not take over the cleanup but would be monitoring it more closely.*
- *USEPA: RADM Nelson, Iarossi, and Commissioner Kelso met in the evening. EPA's Jacobson attended the meeting.*
- 2201 *NRT/USCG: Canadian and U.S. Region Joint Contingency Plan was activated. Co-chairs were Capt. G.E. Haines, the commander of USCGD17 marine safety program, and Mr. G.R. Stewart, director general, Western Region, Canadian Coast Guard.*
- 2203 *USCG POLREP TWENTY-SIX: Transportation of 5.2 km of high seas boom with supporting systems from Copenhagen, Denmark, to Elmendorf AFB was requested.*
- XXXX *USNOAA: A new Planning Group which included USCG, State of Alaska, Exxon, and local interests was established to more efficiently plan the cleanup operations. Subcommittees were to be formed to advise on shoreline cleanup, skimming operations, and oiled wildlife.*
- XXXX *ADN: State officials complained that Exxon never informed state or federal environmental agencies that it was dispatching crews late last week to scrub beaches on Naked and Smith Islands. The agencies learned of the work on Naked Island during beach flyovers of Naked Island and through the discovery of cleanup workers' trash bags of oily rags near the shore of Smith Island.*
- Exxon turned over the beach cleanup to a team of government agency representatives who were in the process of deciding which shorelines should be cleaned. Work was to continue on Naked Island as long as it was only by hand and did not include heavy equipment such as high-pressure water spraying and steam cleaners.*

XXXX *O'DONOGHUE*: For the first time since the 1973 Arab oil embargo, Chevron Corporation and Shell Oil Company announced they were rationing gasoline deliveries to distributors in eight Western states. The rationing was necessary because the distributors had started to hoard gasoline.

XXXX *O'DONOGHUE*: Captain Hazelwood surrendered to police in New York State. The captain was wanted in Alaska on three misdemeanor charges stemming from his absence on the bridge during the accident and his alleged drunkenness. Prosecutors requested bail be set at \$25,000. New York State Supreme Court Judge Kenneth Roth set the bail at \$1 million.

"These were misdemeanors of such magnitude that had never been equaled in this country," Judge Roth said. He described the spill as a "catastrophe on a world scale" resulting in "a level of destruction we've not seen since Hiroshima."

XXXX *USCG POLREP THIRTY-FIVE*: Seventeen skimmer systems were operating and the cumulative total recovered was 15,000 barrels, or 4,500 more than last reported.

XXXX *ADES*: Heavy traffic resumed at Valdez Airport with 381 flights in or out.

XXXX *NAVSEA(SUPSALV)*: Navy SUPSALV staged additional equipment at Norfolk NAS for transport to the EXXON VALDEZ oil spill response, including 12 more MARCO Class V vessel skimmers, two MARCO Class XI VOSS systems (Vessel of Opportunity Skimmer Systems), four tow boats, one rigging van, one command van, one command trailer, two cleaning vans, and two inflatable boats. Equipment which had been at Norfolk since April 3 was still at the MAC terminal due to unavailability of proper-size aircraft.

2400 *EXXON*: The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 897: 94 Exxon employees on-site, 456 contract personnel, 231 contract fishing personnel in Valdez, and an estimated 116 contract fishing personnel in Cordova.

Ten tons of air cargo arrived today including boom. 109 vessels were deployed as were 121,000 boom feet, 18 skimmers, and 18 aircraft.

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

TUESDAY, APRIL 6, 1989

DAY FOURTEEN

## Approximate Alaska Local Time

0653      *USAF: Valdez sunrise.*

2043      *USAF: Valdez sunset.*

0001      *USCG POLREP TWENTY-NINE: Exxon reported 15,000 barrels of decanted oil in barges on scene. Another 4,000 barrels was reported contained in tanks aboard State of Alaska and fishing vessels conducting cleanup. An accurate accounting could not be made, however, until the vessels emptied their tanks on the tank barges and the product was decanted.*

*[AOSC NOTE: Henry Beathard, an Exxon spokesman, explained to the Associated Press that for every gallon of oil recovered, Exxon also collected one to two gallons of water. Beathard said that despite the waterlogged condition of the oil, it had some commercial value as the oil could be separated from the water and then refined. Exxon was to send decanted oil collected from the spill to an as yet unselected refinery in the Lower 48 for processing, perhaps into heating oil or asphalt.]*

XXXX      *NRT/USCG: Twenty-one additional skimmers, including 15 Navy units transported by the USDOD, were enroute to the spill scene. The EXXON VALDEZ remained anchored off Naked Island.*

*A variety of response equipment was being assembled at Mummy Bay and Point Helen, Knight Island, to protect environmentally sensitive areas there. Also, the joint U.S.-Canadian response plan was invoked to speed delivery of more cleanup equipment and operators.*

*USCG Cutters Midgett, Yocona, Sweetbriar, Iris, and Planetree were directed to join Cutters Rush, Ironwood, and Sedge in the cleanup area.*

*A USNOAA overflight revealed oil was thinning and heading out to sea. Heavy oil contamination was reported at Main, Fall, and Eshamy Bays, Smith Island, eastern side of Chenega Island, and northern parts of Bainbridge, Evans, and Latouche Islands. Eastern and western shores of Knight Island were also contaminated. Oil with light concentrations of emulsified ribbons was spotted north of Main Bay near Port Nellie Juan.*

*Leading edge of oil slick was 22 miles south of Nuka Bay in the Gulf of Alaska. Impact was observed on the Chiswell Islands. Oil mousse surrounded Barwell Island, and some oil was trapped on eastern side of Cape Resurrection. Oil was observed approximately 20 miles off coast from Gore Point, varying in width from 10 to 20 miles. Oil was forming windrows. Oil in Prince William Sound continued to flush into the Gulf of Alaska. Oil volume in Bainbridge and Latouche Passages diminished with the migration of spill into the GOA.*

*The oil was affecting areas within the Anchorage FOSC jurisdiction. The oil slick reached Barwell Island at entrance of Resurrection Bay.*

*Contractors were working with USNOAA to develop detailed maps of oiled beach areas. Mandatory health and safety classes for all clean-up crews began. Mortality rate of otters turned into rehabilitation centers was approximately 50 percent. USCGC Rush was maintaining air traffic control.*

DAY FOURTEEN (Thursday, April 6)

XXXX *ADFG:* The oil spill, now two-weeks old, hit the Chiswell Islands, a group of more than 100 small islands in the GOA, 35 miles southwest of Seward, where 70,000 puffins, auklets, and other seabirds nest, and where thousands of sea lions haul out.

XXXX *USCG POLREP TWENTY-SEVEN:* Locations of deployed boom and equipment: Sawmill Bay, Evans Island, 50,000 feet protection boom deployed, 15 vessels on scene with two Navy MARCO Class V systems, one vacuum truck on vessel, one vessel mounted Framo Skimmer, and one 35,000 barrel tank barge; Galena Bay, deflection boom; Naked Island, beach cleanup underway; Esther Island, boom; Head Main Bay, boom with vessel tending; hatchery inland of Main Bay, boom; Eshamy Bay, boom, motor vessel, and one oil-mop skimmer; Herring Bay, Knight Island, 3,000 feet absorbent boom deployed with 11,000 feet of boom being used for containment by five vessels to capture and secure oil for later pickup by skimmers; Mummy Bay, Exxon command vessel and hotel barge; Point Helen, Knight Island, deflection boom, USCG barrier skimmer and 35,000 barrel barge towed by USCGC Sedge and vessel of opportunity; Snug Harbor, Knight Island, three Vikoma, one MARCO Class V, two Walosep, one GT-185, and one ODI skimmers mounted to four motor vessels; Busby Island, boom deployed for containment/collection; EXXON VALDEZ, 6,000 feet of boom surrounding vessel and two MARCO V skimmers.

Additional boom was enroute to Sawmill and Eshamy Bays. More effort was being put into boom and skimming operations in Main Bay, Eshamy Bay, and Port Nellie Juan to pick up recoverable oil. The source of oil appeared to be Herring Bay.

USDOI reported 122 live birds turned into rehab center; 45 had been cleaned and released, 14 had died. Sixty-five live otters had been turned into the rehab center, mortality rate was 50 percent. Fifty-nine dead otters and 300 dead birds were stored in freezer van.

Weather, Valdez and vicinity: Sunny intervals, high mid-forties, light winds. Tonight mostly cloudy with chance of patchy morning fog becoming partly cloudy.

XXXX *ADEC:* Conventional skimming was becoming ineffective as the oil decomposed and more specialized recovery equipment, such as the "Super Sucker," an industrial vacuum loader, was necessary for cleanup.

Dispersants were ineffective on the partly decomposed oil.

ADEC and CDFU defensive efforts at Sawmill Bay continued to be successful. Oil also continued to threaten to cross the booms, so most efforts were still concentrated there. Giant sea booms were brought in from the U.S. Navy. Anchors were set to hold 16,000 feet of this boom in place across the bay. The operators of San Juan Hatchery were to make a decision within the next day or so as to when to release the salmon fry. Winds at Sawmill Bay were generally southeast.

Workers from the City of Seward and KFNP deployed boom in four locations within Resurrection and Aialik Bays as a defensive measure in case oil was pushed nearer by wind and current.

It was reported that routine oil flow in the trans-Alaska pipeline had resumed.

XXXX *ADN:* The U.S. House Merchant Marine and Fisheries Committee and the Senate Commerce, Transportation and Science Committee had hearings scheduled today in Washington, D.C., on the EXXON VALDEZ oil spill.

CFMC: USCG Commandant Admiral (ADM) Paul Yost testified to the Subcommittee on Coast Guard and Navigation of the House Committee on Merchant Marine and Fisheries that insufficient funds were available for a major federal effort in responding to the spill. "There's \$4 million in the oil spill fund, and I was reluctant



to take over a spill I knew was going to go to \$100 million. It would be a much better thing to do to work on the spill using Exxon as a check book," Yost said.

*[AOSC NOTE: Testifying before the same House Subcommittee at Cordova, Alaska, on Aug. 10, 1989, Victor S. Rezendes of the U.S. General Accounting Office, further explained the reluctance of the USCG to federalize the response. According to Rezendes, had the USCG federalized the EXXON VALDEZ spill response, it would have had to tap the Clean Water Act 311(k) fund. Authorized at \$35 million, there was only \$6.7 million in this fund when the EXXON VALDEZ spill occurred, enough to finance less than one week of response operations. In federalizing, the USCG would have also faced reimbursement problems because of the low liability limits in federal legislation for those causing spills and the USCG's contracting and procurement procedures which were more cumbersome than Exxon's. Even so, federal agency costs in the spill response could be \$120 million for the federal fiscal year ending Sept. 30, 1989. Rezendes said that Exxon anticipated \$880 million for spill-related costs through mid-September 1989.]*

XXXX **ADN:** The supervising judge of Suffolk County, NY, criminal court, reduced bail for Capt. Joseph Hazelwood to \$25,000 bond or cash, stating that the \$1 million bail which had been set "is not commensurate with the seriousness of the crime or the effect of the crime on the community."

XXXX **O'DONOGHUE:** President Bush announced that he would oppose any move by Alaska officials to shut down the Alaska pipeline. "We simply do not think it would be in the national interest to close the pipeline," presidential spokesman Marlin Fitzwater said.

XXAM **USCG WAK POLREP THREE:** Beginning today, a FOSC WAK observer accompanied USCG Kodiak Air Station overflights as well as USDOJ-NPS overflights.

0800 **ADES:** Staff augmentation of the State EOC in Valdez continued with arrivals from ADOL, ADCRA, Alaska Department of Transportation and Public Facilities (ADOT), and ADES. The Situation Analysis Section requested two analysts/report writers to augment its staff. Exxon started to pay for state activities associated with oil spill cleanup.

XXAM **USCG WAK POLREP FOUR:** FOSC WAK delivered a prioritized list of critical resources to Exxon. Of prime concern, in addition to the Kitoi Fish Hatchery, was the Litnik area of Afognak Bay, Afognak Island, a major silver and red salmon spawning area.

Exxon agreed to fund the existing ICT in Seward and one to be formed in Homer.

XXXX **NRT/USCG:** RADM Edward Nelson, Commander, USCGD17, Juneau, assumed "overall FOSC responsibility" to facilitate strategic control of response.

XXXX **USCG POLREP TWENTY-NINE:** RADM Edward Nelson, Jr., assumed FOSC responsibility to best execute strategic control of the response effort. Joint manning of Exxon Operations Center, logistics, and other key functions was completed.



XXXX

*USCG POLREP TWENTY-NINE:* Exxon conducted a demonstration of shoreline cleanup techniques on North Eleanor Island for the ISCC. The demonstration of using high-volume and high-pressure water flushing on a heavily oiled gravel shoreline met with minimal success. Further refinements and suggestions on improved techniques were to be discussed at the next Science meeting.

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*ADN:* Exxon tested low-pressure washing on Eleanor Island. Water pumps flooded the beach from the top while workers shot a squirt of water from below to agitate the rocks. Observers said the process was slow and removed oil only from an inch-thick top layer of beach, leaving far more than it washed away.

The tests were only partly successful because water pressure strong enough to clean the beach caused serious erosion and destroyed creatures that lived there.

Workers scrubbing the north side of Naked Island appeared to have given up after making little perceptible progress in three days of scrubbing a 1,000 foot beach.

A USEPA manual of cleanup techniques stated that the low-pressure water technique should be used to flush light-weight oils that are not sticky when contamination is light.

0930

*USCG WAK POLREP FOUR:* The FOSC WAK sent three USCG National Strike Force personnel to the Seward Command Post and one to Marine Safety Division, Kodiak.

1000

*USCG WAK POLREP THREE:* FOSC WAK attended a Multi-Agency Coordinating (MAC) Group meeting in Seward.

1306

*USCG WAK POLREP THREE:* FOSC WAK was advised that a fishermen's group had purchased 7,000 feet of rope mop and was volunteering to conduct cleanup operations. This information was passed onto the Seward Command Post and an Exxon representative.

1330

*ADN:* Eighteen hours after arriving in Naked Bay for temporary repairs, a boom had still not been placed around the tanker EXXON VALDEZ.

Exxon had promised precautions including three oil skimmers, airplanes to spot oil sheen for the skimmers, and sufficient boom surrounding the tanker once it anchored in Outside Bay at Naked Island. According to Lamoreaux of ADEC, only two skimmers were on hand and air support for the skimmers disappeared after a few hours after which ADEC planes took over.

XXXX

*USCG POLREP TWENTY-EIGHT:* EXXON VALDEZ was anchored in Outside Bay, Naked Island. A 32-foot water cushion was in each of the damaged tanks. The vessel was fully boomed and a light sheen was reported inside the boom. Crews were to inert the intact tanks to prevent accumulation of vapors in the explosive ranges. A 1,000 yard safety zone around the tanker was still in effect.

The 36,000 barrel barge standing by the vessel was to be replaced by a large bladder for recovery of sheen coming from the vessel and being held in containment boom. Release of the barge freed it for skimmer recovery operations.

All agencies stressed the extreme need for release and dissemination of accurate information by Exxon of locations of boom and skimmer operations, recovery rates, and quantity of product recovered. Exxon was tasked with compiling a spreadsheet outline of these important details no later than 1600 daily.

Contract vessels were to affix large numbers on their superstructures to facilitate identification from the air. This was to assist in directing working vessels to recoverable quantities of oil.

DAY FOURTEEN (Thursday, April 6)

1330 *USCG-ARRT*: Primary attendees at the ARRT teleconference were USEPA-Lautenberger, USDOC-Gates, USDOJ-Becker, USDA-Paul, ADEC-Lamoreaux, USCG MSO Valdez-CAPT Haines and CDR Rome, USCGD17-CDR Waldron. Other agencies represented included ADES; USDA-FS; USDOJ-BLM, FWS, MMS, and NPS.

A new command post with Exxon and USCG was established. ADEC was to operate from that command post too. CDR McCall and LCDR Reiter were sharing the FOSC duties (for PWS).

The prohibition against use of dispersants during shoreline cleanup was addressed. Other concerns included rules for boat washing areas, Exxon's disposal of oil-fouled clothing, and the need to begin setting up animal receiving centers in areas along the Kenai Peninsula and in Kodiak.

XXXX *ADES*: The Logistics Section of the State EOC implemented a Logistics Center at Exxon's temporary headquarters in Valdez to support ADEC in oil spill cleanup, containment, and other work. The Logistics Center was manned by Exxon, ADEC, CDFU, and USCG representatives. A separate logistics office to support state government agencies involved in shore-based activities was set up in the State EOC, which was to be fully moved into its new quarters at the Eagles Hall this afternoon. That operation was to be manned by a Division of Forestry Class II Incident Command Team. An ADES staff person was acting as log chief for the EOC in the integrated activities with Exxon.

1400 *USCG POLREP TWENTY-NINE*: ARRT met at the USCG MSO, Valdez.

XXXX *USCG POLREP TWENTY-SEVEN*: Four boxes of USCG boom and mooring systems were to have arrived Elmendorf AFB by C-5 for transfer to Homer and Valdez. The flight was then to take additional boxes to the CG Kodiak Air Station for possible future use there.

1430 *USCG POLREP TWENTY-NINE*: C-5A military plane delivered three Navy MARCO Class V skimmers and associated equipment.

1500 *NRT/USCG*: Overflights indicated difficulties encountered in positioning skimmers in areas of heavily concentrated oil. Emulsified patches of oil clinging to some shoreline areas were inaccessible to larger skimmers.

XXXX *USEPA*: USEPA Region 10 formally recommended in a letter FAXed to officials in Anchorage, Valdez, and Juneau, that the Apollo I be used to incinerate waste oil in Valdez.

Five Region 10 staffers were to be sent to Alaska. ADEC had hired someone to replace EPA's Ferguson as press officer.

USDOJ held a meeting in Anchorage concerning responsibilities in the natural resources damage assessment.

1700 *USCG WAK POLREP THREE*: FOSC WAK, after attending a Disaster Assistance Council (DAC) meeting in Kodiak, left Kodiak for a meeting with Homer and Kenai Peninsula Borough representatives.

XXXX *ADES*: The Kenai Peninsula Borough was supporting the communities of Seward and Homer.

1815 *USCG WAK POLREP THREE:* A USNOAA Scientific Support Coordinator arrived at the Anchorage MSO to assist the FOSC WAK.

1900 *USCG POLREP TWENTY-NINE:* Canadian CG equipment, two ACW-400 skimmers, two GT-185 skimmers, one "Slick Licker" and Ridell Skimmer, and four personnel departed Valdez on Tug Eason-3 with barge enroute to Point Helen at the southeast end of Knight Island.

1800 *ADES:* The State EOC was fully moved into its new quarters and held its first staff meeting there. The new Public Affairs Office was also operational in a separate location. Public-information planning sessions were scheduled for 0700 daily with press conferences at 0800.

Dr. Richard Gist had arrived Valdez from Kansas City to consult on the mental health aspects of the disaster. Mark Johnson of ADHSS consulted with mental health professionals in Cordova, Valdez, and Seward, and briefed the EOC staff and ADEC personnel on stress prevention.

XXPM *McCLINTOCK:* The City of Seldovia established an EOC in the multi-purpose room of the library building. Public meetings were to be held every day.

XXXX *ADN:* The oil company owners of the trans-Alaska pipeline issued a memorandum stating that while they did not agree with all the findings in the state's draft emergency order, they concurred in the need to take immediate steps to improve both short-term and long-term response capability to oil spills in Alaska.

The companies did say they could not meet the state's April 30 deadline to have equipment available to respond within two hours to a 10 million-gallon spill. The companies said they had not been able to find enough such equipment.

The oil companies also announced several new policies in immediate effect: tugs and state-licensed pilots would accompany incoming and outgoing ships between the terminal to beyond Bligh reef, random drug and alcohol testing would begin on all vessels, and chemical dispersants would be stockpiled in Valdez. In addition, they said they would ask the USCG to expand clear radar coverage to Bligh Reef and other locations in PWS.

In the meantime today, a USDOJ spokesperson stated that the department's solicitor had made a preliminary finding that the governor did have authority to close the pipeline to protect health and safety.

XXXX *USFWS:* U.S. Cong. George Miller departed after visiting several cleanup sites. USEPA asked that no biological additives be used in beach cleanup. Oil was seeping into the substrate.

The bird rescue center was considering phasing down the Valdez facility and phasing in a Seward facility.

There were now 160 live birds in the rehab center, all cleaned, and 450 dead birds in the freezer van; four birds had been released. Of 82 live otters collected, 30 were still alive; 106 otters were stored in the freezer van.

Of six otters sent to San Diego, only two remained alive. The USFWS Alaska Regional Director issued a moratorium on otter shipment. The Vancouver, Calif.. Public Aquarium, where 12 otters were going to be shipped, agreed with this reasoning. However, a flap with the Alaska Governor's Office developed over the decision.

The Valdez heated otter-recovery facility became operational.



*EXXON*: The new otter center, located in a school gymnasium, had a capacity of 96 sea otters and a veterinary/pathology department which included many of North America's most well-known sea otter experts.

Otters were first examined by veterinarians and, if found to have been in contact with oil, were then cleaned thoroughly, rinsed, and dried. They were then transferred to a recovery room where they were monitored. During recuperation, the otters were fed fresh crab, shrimp, and fish. When they were judged healthy enough to enter water, they were placed in special salt-water holding pens prior to controlled release back to their natural habitat. New medical technology and techniques developed during operation of the center included work on treatments to restore natural fluids to the otters' fur.

Similar procedures had been developed and tested for bird treatment. Oiled birds were given careful initial washings with detergent and then bathed even more thoroughly for a second time. The birds were fed a liquefied nutrient and, when sufficiently treated and recovered, were placed in specially constructed pens for further rehabilitation before release.

XXXX

*USNOAA*: The USNMFS collected sea-lion scat today on Seal Island in order to get an indication of whether sea lions were ingesting oil or had problems from inhaling fumes.

According to NMFS, there was a need to think about how to clean rocks with barnacles and mussels attached. People on scene lacked experience in the recovery process.

Water sampling around Knight Island revealed the highest (oil) concentration in Montague Strait.

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*ADN*: USNMFS scientists observed that mussels and other shelled creatures had started to die and would keep dying.

XXXX

*ADES*: The sky was cloudless, allowing a large amount of aircraft to be used in the Sound as well as traffic in and out of Valdez. Operations at Valdez Airport included 505 flight arrivals or departures. The AK ARNG UH-60 and CH-54 and AK ANG C-130 continued bringing cargo into Valdez.

ADOT provided an emergency hotline at the Valdez Airport between the FAA control tower and the airport crash/fire rescue facility. The helicopter parking pad at Valdez Airport was reorganized to facilitate additional helicopters that were arriving in numbers. ADOT provided the EOC with a color-coded Valdez Airport layout plan.

XXXX

*USCG POLREP TWENTY-NINE*: Exxon skimmer and shoreline cleanup continued with Main, Eshamy, Herring, and Sawmill Bays the center of cleanup activities. Herring Bay was still the source of secondary impact along Knight Island.

Locations of deployed boom and equipment were essentially as reported in *POLREP Twenty-Seven*. Sawmill Bay now had 66,000 feet of protection boom deployed with 15 vessels and two Navy MARCO Class V systems on scene. Two vacuum trucks on vessels were now in operation, the State Ferry Aurora was serving as a hotel, and Navy 42-inch boom was staged aboard the M/V Blue Fin. Twelve thousand feet of containment boom now surrounded the EXXON VALDEZ with one MARCO Class V skimmer working. Boom and a MARCO Class V skimmer were now deployed at the head of Port Nellie Juan in Kings Bay.

Exxon was staging shoreline cleanup equipment inventory in Anchorage to allow for fast response to impacts in PWS and possible impacts in Cook Inlet, Kenai Peninsula, or Kodiak.

DAY FOURTEEN (Thursday, April 6)

Operational plans were to begin shifting resources as situation allowed from Sawmill Bay to other highly impacted areas at northern end of Knight Island. Plans also included placing USCG barrier south of Snug Harbor.

Exxon was setting up or had in place seven boat cleaning stations.  
311(k) expenditures to date totalled \$4,233,100.

XXXX *USCG WAK POLREP FOUR:* Exxon was to move a MARCO Class V skimmer to Seward, acquire 6,500 feet of boom from Boston for use in the Seward/Kenai Peninsula area, and bring in a variety of other boom and another MARCO Class V skimmer to Kodiak. Two USCG National Strike Force barriers arrived Kodiak along with 10 cases of oil snares and other sorbents; approximately 200 more cases of oil snares were destined for Kodiak.

XXXX *USNPS:* The leading edge of the main oil slick was reported 40 miles south of Gore Point and tracking southwest at 15-18 miles per day under present conditions. It was expected to reach Kodiak Island in four-five days.

An ICT branch was being established in Kenai to handle work in Lake Clark and Katmai National Parks and Aniakchak National Monument.

2400 *EXXON:* The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 1,018: 98 Exxon employees on-site, 492 contract personnel, 285 contract fishing personnel in Valdez, and an estimated 143 contract fishing personnel in Cordova.

Thirty tons of air cargo had arrived today including boom. 109 vessels were deployed as were 146,000 boom feet, 18 skimmers, and 18 aircraft.

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

FRIDAY, APRIL 7, 1989

DAY FIFTEEN

## Approximate Alaska Local Time

0650 *USAF: Valdez sunrise.*

2046 *USAF: Valdez sunset.*

XXXX *NRT/USCG: At the direction of President Bush, the USDOD established a Director of Military Support Joint Task Force (JTF) to assist the FOSC in cleanup. A DOD Assessment Team was to determine the best way to apply military support. The JTF began daily oversight meetings in the Pentagon Army Operations Center.*

-- *CFMC: President Bush directed the branches of the military to provide equipment and manpower for the cleanup. He reaffirmed that he was not federalizing the cleanup.*

-- *USCG: President Bush designated ADM Paul A. Yost, Commandant of the USCG to be the Federal Coordinating Director for the EXXON VALDEZ oil spill, replacing RADM Edward Nelson, who had directed the initial cleanup efforts in addition to his regular duties as commander, USCGD17, Juneau. RADM Nelson was to stay on in Valdez for several days as ADM Yost's transition director.*

-- *ADN: At a White House Press conference, President Bush made official what had largely taken place already, the elevation of the USCG to the top of the troika dealing with the EXXON VALDEZ oil spill. Bush also announced a plan to utilize military troops in the response.*

-- *ADEC: In the morning, President Bush authorized federal assistance in the cleanup efforts since Exxon's cleanup project was inadequate. Exxon was not relieved of responsibility, however. USCG and military resources providing military organization and coordination would be used for oil cleanup of the water and beaches.*

-- *USEPA: The President announced that there would be no federalization of the spill response. He also made the following points: that the cleanup and reclamation of PWS would be a long sustained effort; that we should rededicate ourselves to transportation safety; that national security must not be jeopardized because of human error; that Exxon was liable; and that he was not satisfied with Exxon's performance.*

XXXX *GOV'S OFFICE: Governor Cowper, in responding to the steps outlined by President Bush, emphasized that the spill must be coordinated on site, which appeared to be the case since ADM Yost would be personally involved in oversight of the cleanup. Governor Cowper asked for Alaskan resources, such as Alaska Native firefighting crews, to be utilized before military troops were brought in. Governor Cowper stated his pleasure that the President was asking Exxon to expedite a non-*

DAY FIFTEEN (Friday, April 7)

exclusive claims procedure for those people in PWS who were losing money as a result of the spill.

XXXX *USEPA:* Responding to President Bush, USEPA Administrator Reilly accepted the tasking of his agency with the responsibility to coordinate efforts to promote the long-term restoration of the ecology of PWS. Reilly said it was essential that the study plans of the various agencies be compiled in one location so that they could be effectively managed to promote optimization of the joint sampling and analytical ventures and eliminate duplicate efforts. He suggested a repository at ADEC with the USNOAA SSC facilitating the flow of scientific information to that facility.

XXXX *EXXON:* After the oil spill, skimmers were initially directed into the heaviest concentrations of oil south of the EXXON VALDEZ. Then, following the gale force winds of Sunday night and early Monday, skimmers pursued the oil to the north end of Knight Island, where a concentrated effort was directed. Later, available skimmers were positioned defensively near the Sawmill Bay hatchery, with the exception of the USCG barrier skimmer which moved southward in the Knight Island passage. As the free floating oil moved into the GOA, most of the skimmers were repositioned to Point Hogan and Snug Harbor to skim the oil contained in this area.

Over the period March 28 to April 7, multiple lines of boom were deployed to protect the four key fish hatcheries along the western side of PWS (Esther, Main, Sawmill, and Eshamy Bays).

XXXX *NRT/USCG:* The spill area had enlarged to approximately 2,600 square nautical miles, according to USNOAA analysis of recent overflights. Heavy concentrations of oil were sighted on the eastern side of Knight Island. Sheen remained in most passage areas forming streams and stringers.

Approximately 300 dead birds and 76 sea otters were collected. The new Valdez (otter) rehabilitation center began operations.

XXXX *ADEC:* Oil was near the entrance of Resurrection Bay but had not yet entered. The largest thick mass of crude was now in the GOA off Aialik Bay. Thick gobs of oil were also trapped in many small sheltered areas of PWS. Windrows of oil were traveling generally southwest off the GOA coast toward Kodiak Island and were now near Nuka Bay.

Estimates of the area covered by the spill were difficult to make and varied according to the source. Estimates were reported as high as 2,600 square miles in national press coverage yesterday.

The leading edge of the oil slick, which was not continuous, was currently 22 miles south of Nuka Bay in the GOA. The impact, described as ribbons, streamers, and sheens, had been observed on the Chiswell Islands. Some oil had been trapped on the eastern side of Cape Resurrection.

Weather factors and the difficulty of long-range air reconnaissance made it difficult to judge whether and where oil might reach shore.

The partly decomposed and scattered oil would not burn. Incinerator ships might be used to dispose of used absorbent recovery materials.

XXXX *USCG WAK POLREP FOUR:* Remote weather stations that arrived last night in Seward were to be placed this morning by Exxon helicopter at Barwell Island or Cape Resurrection, Pye Islands, Chugach Island, and Afognak Island.

0930 *NRT/USCG:* Divers surveyed Tank No. 1C beneath EXXON VALDEZ and began drilling operations to prevent further spread of main crack.



1030 *USCG WAK POLREP FIVE:* The FOSC WAK provided a prioritized list of critical resource areas to USCG MSO Valdez.

XXXX *USCG POLREP THIRTY:* The ISCC firmed up its membership. Preliminary discussions were occurring among ADEC, the USCG, and USNOAA in order to illuminate the statutory criteria and other ground rules for deciding how decisions would be made regarding "how clean is clean."

*USCGC Rush*, on station in vicinity of Naked Island, continued to act as air traffic controller.

The Exxon response team had grown to 125 people. 215 contract expert, advisors, and contract management personnel were working the spill. 400 contract people were working in the field including 250-300 manning 110 vessels in the "Exxon Navy." The total amount of personnel on payroll was approaching 1,000.

Eighteen aircraft were under full-time contract. Thirty-two additional skimmers were enroute to be deployed in PWS or westward for the offshore response.

Approximately 300 dead birds and 75 dead otters were in the freezer van which was set up for collection. USFWS was recommending that Exxon establish an additional sea otter cleaning and rehab center in Seward. The new sea otter facility in Valdez was to open in the morning.

1320 *USCG POLREP THIRTY-FOUR:* Military C-5 arrived Elmendorf AFB with connex boxes.

1400 *USCG POLREP TWENTY-SEVEN:* A C-5 was due at Elmendorf AFB from Denmark with 2300 feet of Norwegian boom.

1450 *USCG WAK POLREP FIVE:* A representative of the FOSC WAK departed from Seward on a seining vessel that was testing the use of herring nets to break up oil slick.

XXPM *NRT/USCG:* The emergency order tightening operations at the Valdez AMT was signed by Governor Cowper.

-- *GOV'S OFFICE:* The governor announced that the ADEC had, this afternoon, issued an emergency order to Alyeska Pipeline Service Company outlining specific conditions Alyeska must meet to prevent and mitigate future spills in PWS. The order mandated that Alyeska must be able to respond within two hours of a major spill, have a round-the-clock oil spill response crew of no less than 12 in addition to a supervisor, and boom all tankers upon arrival and inspect boomed areas hourly for spills.

Additionally, tankers could depart the AMT only during daylight hours; two tugs must accompany all outgoing tankers to Hinchinbrook Entrance, and Alyeska must maintain direct radio contact with all incoming and outgoing tankers, accompanying tugs, and all response vessels.

The emergency order also required Alyeska to have a revised oil spill contingency plan by no later than June 1, 1989. If Alyeska failed to comply with the order, civil or criminal charges could be filed.

Governor's offices were established in Cordova, Kodiak, and Seward to coordinate oil spill information and work with citizens.

XXXX *USCG POLREP THIRTY:* A C-54 from Ramstein AFB, Germany, was airlifting from Helsinki, Finland, 23,000 feet of ocean curtain boom with associated gear that the USSR had sent to Finland for this purpose. Sorbent pom-pom (snake boom) and sorbent pads were due in from New Orleans via Anchorage on a commercial flight.

DAY FIFTEEN (Friday, April 7)

1725 *USCG WAK POLREP FIVE:* The FOSC directed that the Danish 84-inch boom which had arrived at Elmendorf AFB be directed to Seward.

XXXX *ADN:* The four NTSB investigators in Valdez to investigate events leading to the EXXON VALDEZ shipwreck were to have left today for Washington, D.C. where they were to begin preparing for a public hearing, scheduled for May 16-19 in Anchorage.

XXXX *USEPA:* USEPA's Jacobson spent his last day in the Valdez public information office and left for Seattle. John Sainsbury was to represent Region 10 on USEPA's ERT. Three EPA personnel from the Region 10 water quality team were assigned to ADEC. Two more EPA staffers were to arrive to work on the NRT 30-day report. Additionally, several other EPA personnel from around the country, including two from Duluth, Minn., were to visit Valdez.

1830 *NRT/USCG:* Sheen with streaks of mousse were reported extending from the northern part of Naked Island down the eastern shore of Knight Island, through Latouche Passage, and into the GOA. The northern part of Montague Island and Green Island were affected. Extensive sheen was observed in and around Snug Harbor. Light sheen with stringers ranged from Port Nellie Juan to Main Bay and down Knight Island Passage into Latouche Passage. Some sheen was observed in Prince of Wales Passage.  
USCGC Rush maintained air traffic control. USCGC Sedge passed OWOCRS towline to Theresa Marie.

1832 *USCG POLREP THIRTY-FOUR:* Military C-5 arrived Elmendorf AFB with three skimmers and related equipment and systems.

1900 *McCLINTOCK:* The City of Seldovia assigned a representative to the Homer MAC Group.

1900 *USCG POLREP THIRTY-ONE:* 311(k) funds expended: \$4,525,873.

1910 *USCG POLREP THIRTY-FOUR:* Military C-5 arrived Elmendorf AFB with boom and three skimmers with related equipment and systems.

2000 *USEPA:* At the evening Science Committee meeting, Exxon asked the USCG for permission to use the dispersant Corexit. Both the state and USEPA stated that the application would be ineffective and dangerous.

2030 *USCG WAK POLREP FIVE:* In Kodiak, boom handling and deployment training was provided for fishermen and interested parties.

XXXX *ADN:* President Bush's proposal to utilize military troops in the spill response met with a less-than-enthusiastic response in the state. RADM Nelson met much of the day in Valdez with USAF Lieutenant General (LTJGEN) Thomas McInerney, head of the Alaskan Air Command. Afterwards, RADM Nelson stated that he saw little need for troops now.  
RADM Nelson said it hadn't been decided yet whether to accept the Air Force offer of planes and other equipment support. What had been agreed to was that four staff members from the Alaskan Air Command would remain in Valdez to serve as liaisons between the USCG and the military.

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Additionally, a USDOD Assessment Team that included engineers, air traffic controllers, and others was to be dispatched to Alaska, according to an aide to USCG Commandant ADM Yost.

XXXX ADN: Exxon wrote to the Alaska Division of Tourism and the Alaska Seafood Marketing Institute today, offering to contribute to marketing campaigns to allay fears of potential visitors or consumers of Alaska seafood.

XXXX *USCG POLREP THIRTY*: USNOAA had analyzed data on the offshore spill area including USCG SLAR imagery and visual ground-truth observations. Considerable variation in coverage was observed over the slick area.

"For 10 X 20 mile areas, the percent coverage varied from one to 80 percent. In many respects, the large scale plume can be visualized as like the smoke from a cigarette showing detailed structure of filaments and streaks, lacing over large areas of clean water."

Approximate area bounded by the spill -- 2,500 square nautical miles:

-- Percent coverage with oil greater than a mono layer (transparent sheen which cannot be distinguished from background natural organics on the ocean surface) 10 to 40 microns thick: approximately 15 percent.

-- Percent coverage of oil thicker than 100 microns with silver to rainbow appearance: approximately five percent.

-- Percent coverage of oil thicker than 1,000 microns with dull colors to brown appearance: approximately 1.5 percent.

-- Percent coverage of thick brown strings of oil: less than 0.1 percent.

XXXX *ADEC*: Based on visual observations from aircraft, the oil slick present on this day covered an area of 3,229 square miles and its farthest southwest edge was 179 miles from Bligh Reef where the EXXON VALDEZ went aground.

XXXX *USNOAA*: Most of the oil remained inside PWS with some of the bays and shoreline on Knight, Eleanor, Ingot, Smith, and Green Islands being most heavily impacted. With the prevailing winds being variable or out of the northeast to 15 knots, the general flow of the surface oil continued to be out through Montague Strait.

The Coast Guard SLAR imagery from the AIREYE was being used very successfully to track the oil moving outside PWS through the northwest corner of the GOA. USNOAA was tracking the leading edge of the oil which was made up of a series of long streaks and bands of mousse and oil. The western edge was actually further east than previously reported; this apparent shift was actually due to winds and mixing causing more rapid dispersion at the leading edge.

ADEC received a request from Exxon today to use dispersants in the GOA. The request was based on lab tests conducted by Exxon which showed 80 percent efficiency on four-month old oil. The sheen located in the GOA would be amenable to the dispersant; however, the mousse stringers would not. The plan was to apply dispersant on the south and east leading edges of the slick and to avoid shorelines.

170 birds had been brought to the rehabilitation center to date. Ninety-eight were alive at the center, eight had been released, the rest had died. Of 82 sea otters brought to the center alive, 45 were currently alive and 31 had died. Of six sent to Sea World, two were currently alive.

There were now 31 water-quality stations taking water and sediment samples and bioassays and testing toxicity.

ADEC favored two methods of shoreline cleanup: low-pressure flushing over a long period of time and high-pressure flushing. Profiles in sheltered coves needed to be reestablished. Exxon felt three processes were appropriate: natural weathering

DAY FIFTEEN (Friday, April 7)

process, hot water (110 degrees) and pressure, and low-pressure/high-volume. Exxon was also looking at adding agitation to the low-pressure/high-volume method through rakes, hand tools, and jets.

XXXX

*USCG POLREP THIRTY-ONE:* Shoreline clean-up priority assessment guidelines were developed and signed by ADEC, ADFG, ADNR, USCG, USFWS, USNOAA, USFS, CDFU, PWSCA, and CAC (???) USEPA.

Oil viscosity decreased efficiency of weir skimmers to the extent that their deployment was no longer productive. USCG National Strike Force representative, on board the Exxon command vessel, reported that the MARCOs and GT-185s were effective with oil. MARCOs were most effective due to their built-in screw-pump off-loading system. GT-185 performance was reduced by lack of integrated heavy-oil off-load capability.

The National Strike Force representative also reported that skimmer operators indicated that during initial skimming operations almost all systems used were able to recover 500-600 barrels of oil a day. Due to weathering of oil, recovery rates had been reduced to 200 barrels a day.

Exxon tested a cyclonic vacuum pump for pumping viscous oil. The pump proved very successful and Exxon was optimistic that it could be used for off-loading small tanks on skimmers to large tank barge.

ADEC, which was ready to move its operation to another site, wanted to transfer control of its operation with the State Ferry Aurora and accompanying fishing vessels to Exxon.

Exxon subcontractor VECO intended to enter into a time charter of a Soviet skimmer vessel with crew. The vessel was due to depart Sakhalin April 10. Transit to PWs was estimated to be 10 days. The vessel was to initially operate in the GOA.

XXXX

*ADN:* Stephen Willingham, an ADEC engineer from Juneau, returning from a flight over Applegate Rocks talked about how the area was a zoological dessert. Last week he had seen hundreds of dead and dying birds and an otter unsuccessfully trying to lick himself clean. Yesterday the carcasses were all washed out and the smell of petroleum filled his nose.

Exxon said its cleanup crews had collected 500,000 gallons of the oil, five percent of what was spilled. The rest was washing around islands on the west side of PWS and out to the GOA.

Of 166 live sea birds brought into Valdez for cleaning, 60 had died. Forty-five otters were dead of 85 brought in. In tidal pools, mussels, clams, and other smaller creatures were dying a slow death, either poisoned or smothered by the thick, gooey crude.

XXXX

*ADEC:* ADEC dispatched team members to Seward and Kodiak, communities which were implementing defensive measures.

XXXX

*ADES:* ADES conducted town meetings in Whittier and Seward with ADCRA and Mike Irwin of the Governor's office. Whittier was concerned with protecting a 1200 mile coastline east of Whittier that had not been disturbed by the oil. Citizens also felt local resources were not being used extensively by Exxon as local hires. For example, they felt that if they were provided boom shipped to Whittier via the Alaska Railroad they could provide the personnel and vessel resources. Whittier sent a representative to Valdez to monitor the spill operation.

In Seward, boom was placed in strategic areas and various local contingency plans had been developed. Bob Haveland of the Kenai Peninsula Borough was serving as a contact at Valdez for the community. Seward was concerned about

protecting the coast line as the spill moved and voiced the need for the state to have tourism promotion which would point out that the entire state was not covered by the spill. Seward had concerns about local hire and was encouraging greater use of scientific data available at the Institute of Marine Science in Seward.

Virtually all individuals felt they had not received enough current information to base their understanding and actions in relationship to the oil spill and endorsed the concept of a daily newspaper initiated from the state EOC which would be FAXed to their communities.

XXXX *USCG WAK POLREP FIVE:* The mobilization for the WAK oil spill response continued. The FOSC directed the USCGC Yocona to Seward and requested that USCGD17 divert the USCGC Planetree to Seward instead of Homer. When in service for WAK, the CG Cutters would move the 84-inch boom through oil slick to attempt to break up the slick.

One skimmer arriving Seward was to be deployed on the east side of Cape Resurrection/Barwell Island. Another skimmer was due to arrive Kodiak. Boom was being transported to Kitoi Bay by state vessel and USCGC Storis. The Storis was also to deliver boom to Paul's Bay and Portage Bay on Afognak Island where log boom was also to be placed. CGC Morgenthau was en route to Kodiak and plans were to direct it to Kennedy Entrance (the mouth to Cook Inlet) to monitor and inspect vessels entering Lower Cook Inlet.

XXXX *McCLINTOCK:* Residents on Kodiak Island were building log boom to handle the seas around Kodiak. The Kodiak Island Borough had negotiated with two of the Native village corporations to supply logs from Afognak Island for the boom.

XXXX *ADN:* It was about this day that Exxon Shipping Company President Iarossi left Valdez. Iarossi had stayed 15 days in Valdez. During this period Exxon had successfully removed its remaining oil off the tanker and refloated the vessel.

XXXX *USNPS:* One hundred people were working on the ICT and in the USNPS Alaska Regional office on oil spill-related matters.

XXXX *ADN:* The USDOC-NMFS was expected to stand up as an advocate for intertidal life, the ADFG for the fisheries, and the USDOJ-FWS for birds and marine mammals. Biologists and archaeologists were to be on the scene of cleanup operations to prevent errors.

XXXX *ADN:* Sixteen lawsuits had been filed in Anchorage state and federal courts since the Exxon Valdez ran aground. Meanwhile, a group of attorneys representing plaintiffs had begun negotiating with Exxon and the Alyeska Pipeline Service Company for early payments to compensate their clients for losses.

According to one suit, Exxon was sued in 1982 by a seaman who had served aboard a vessel commanded by defendant tanker-captain Joseph Hazelwood, claiming that defendant Hazelwood while drunk on board his vessel had subjected the seaman to physical abuse.

A lawsuit by Native groups of PWS and the lower Kenai Peninsula claimed the catastrophic spill had harmed their subsistence way of life and their livelihood.

Other lawsuits were filed outside Alaska and included a multimillion-dollar class-action complaint in federal court in California charging that the spill led to higher gas prices for California drivers.

XXXX

*ADES:* Contract disaster psychologist, Dr. Gist, submitted his first briefing memo to the State EOC, a suggestion that the FOSC accomplish a short press briefing every day to reassure the public that someone was in control of the disaster response.

The Incident Communications Center was in place, monitoring all frequencies.

The State EOC published its organizational chart. Jim Sey and Pete Wuerpel of ADES were the coordinating officers. To the side was Jim Sellers, representing the Office of the Governor. Beneath the coordinating officers were divisions for situation analysis, logistics, and operations. Operations included special operations, communications, and Alaska Departments of Transportation, Law, Health and Social Services, and Public Safety.

XXXX

*ADES:* This was a record day for the AK ARNG supply effort. Eight missions were flown and 80,000 pounds of cargo carried. The AK ANG C-130 flew four missions and carried 9,000 pounds. Total air traffic at Valdez Airport included 367 arrivals or departures.

2400

*EXXON:* The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 1,046: 106 Exxon employees on-site, 584 contract personnel, 237 contract fishing personnel in Valdez, and an estimated 119 contract fishing personnel in Cordova.

Eighty tons of air cargo arrived today including pumps, absorbent, and boom. 110 vessels were deployed as were 158,000 boom feet, 25 skimmers, and 18 aircraft.

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

SATURDAY, APRIL 8, 1989

DAY SIXTEEN

## Approximate Alaska Local Time

0647            *USAF: Valdez sunrise.*

2048            *USAF: Valdez sunset.*

XXXX            *NRT/USCG: Skimming operations continued in Main, Eshamy, Herring, and Sawmill Bays, and began between Knight and Green Islands. While GT-185 skimmers were very effective, the USCG reported that oil recovery rates were reduced to 200 barrels per day due to increasing oil viscosity.*

*Morning overflight showed occasional light sheen in Perry Passage north of Port Nellie Juan. No oil was found in Wells Passage or McClure Island. Light sheen was seen at Port Nellie Juan, Main Bay, and Crofton Island where some beach impact was observed. Less than 10 percent of Eshamy Bay was covered with sheen, but heavy oil concentrations were contained by booms.*

*A mixture of sheen and mousse was observed in northern, eastern, and southern areas of Knight Passage. Sheen and mousse streaks were noted in Prince of Wales Passage. Shorelines abutting Latouche Passage showed oiling with mousse and sheen offshore. Sheen with patches of heavy oil was observed off southern Montague Island.*

*The trajectory of the spill was curving into Anchorage FOSC jurisdiction. Valdez and Anchorage FOSCs deployed MARCO Class V skimmers in defensive positions in the GOA.*

*USDOI reported that 529 birds and 94 sea otters had died. The USFWS prepared a list of wildlife areas believed to be at risk from the oil spill.*

*USCG Cutter Rush maintained air traffic control, worked 303 aircraft, and processed over 2,126 radio contacts. USCGC Ironwood continued installation of mooring systems in Sawmill Bay.*

*USCG boat-safety team was enroute to Whittier to conduct safety boarding on volunteer recreational boats used for retrieval of dead wildlife. In Whittier, USDOI was setting up a wildlife-collection station and Exxon a boat-cleaning station.*

XXXX            *USCG POLREP THIRTY-ONE: Boom or boom and equipment were deployed at Galena Bay, Naked Island, Esther Island, Head Main Bay, hatchery inland of Main Bay, Eshamy Bay, Herring Bay, Mummy Bay, Sawmill Bay, Point Helen, Snug Harbor, Busby Island, head of Port Nellie Juan, and around the EXXON VALDEZ.*

XXXX            *USNOAA: Although most of the oil remained in the western half of PWS, surveillance and mapping of the oil that moved out of the Sound and into the coastal waters of Alaska was being emphasized. Sightings confirmed that, with the variable winds in PWS, some of the remaining oil in the form of sheens and streaks of mousse had moved to the east and south of Smith Island and impacted the northern shore of Montague Island as well as moved into the eastern portion of PWS north and west of Hinchinbrook Island.*

*The majority of oil was moving west along the coast, with a smaller amount moving out into the GOA, south and then west. The oil moving along the coast was pushed to the south by the fresh water coming out of Resurrection Bay, but a portion of this oil had impacted the Chiswell Islands and the mouth of Harris Bay. The*

DAY SIXTEEN (Saturday, April 8)

leading edge, which was actually made up of a series of broken streaks of mousse and sheen, was approximately 22 nautical miles south of the mouth of Nuka Bay.

XXXX *ADEC:* Daylight travel restrictions continued for tankers. Two tankers departed and two arrived.

0630 *NRT/USCG:* USNOAA conducted overflights.

0715 *ADES:* The State EOC staff met as it did regularly each day at this time.

0900 *USEPA:* The ISCC met at the Exxon offices. Microbial degradation, other beach cleaning techniques, and priority-setting for beach cleanup were discussed.

0900-1200 *GOV'S OFFICE:* A State of Alaska Impact Advisory Team, comprised of representatives of the state AG's Office, ADEC, and the ADFG Commercial Fisheries Entry Commission (CFEC) began in Valdez with the first of a planned series of workshops in spill-affected communities. Team members addressed questions about state loan and permit programs, identification and documentation of losses, and the state's role in assisting residents. The CFEC confirmed that it would refund 1989 permit fees to fishermen unable to fish due to the spill.

0945 *NRT/USCG:* USCGC Rush reported heavy concentration of oil from Bass Harbor to eastern end of Smith Island. The slick was apparently one-mile wide. Exxon officials were notified and a skimmer crew diverted.

Response actions stepped up at Sawmill Bay and Snug Harbor, where eight skimmers, five vessels, and an oil-recovery barge were involved. Over 5,000 feet of boom was deployed in Kings Bay. Full-boomed EXXON VALDEZ remained anchored off Naked Island with a 32-foot water cushion for each of its damaged tanks. Light sheen was reported inside the boom.

USDOI-FWS conducted an aerial shoreline survey from PWS to Homer.

0954 *USCG POLREP THIRTY-ONE:* A skimmer crew was diverted to begin operations in a heavy oil slick that the USCGC Rush observed from Bass Harbor to the eastern end of Smith Island.

1300 *USCG POLREP THIRTY-TWO:* USCG and Exxon press conference focused on Exxon's proposed two-phase cleanup plan. The activity which was in progress on Naked Island would continue for about two weeks and then move to prime seal-pup areas at Applegate Rocks and Smith and Seal Islands.

-- *ADN:* Exxon's plan called for cold-water wash on most sensitive beaches and hot-water spraying on rocks where there was not much life and it was important to get rid of the oil before sea-lion pups were born.

1330 *USCG-ARRT:* Primary attendees at the ARRT teleconference were USEPA-Lautenberger, USDOI-Gates, USDOC-Becker, USDA-Knorr, ADEC-Kent, USCG MSO Valdez-CAPT Haines and CDR Rome, USCG-MSO Anchorage-CAPT Roussel, USCGD17-CDR Waldron. Other agencies represented were ADFG; USDA-FS; USDOI-FWS, NPS, and MMS; USDOD-ACOE; USDOC-NOAA.

The EXXON VALDEZ was holding in place with one anchor out. A light sheen was coming from its stern. A boom was rigged to swing with the ship so the ship stayed fully encircled by boom at all times.



The USCG barrier skimmers were removed from service as they could no longer pump oil at the present viscosity. In a test of what skimming systems would work in the oil, good results were obtained with the MARCO systems and the GT-185s. A herring vessel which ran a fine mesh herring net through an off-shore slick area got fair results in breaking up the oil.

Exxon had proposed the use of dispersants on the offshore oil sheen. This was opposed by ADEC, USEPA, and USDOC, but they agreed to reevaluate Exxon's proposal if it was submitted with additional information. Exxon was expected to present studies which had been done on dispersant use on weathered oil.

The ARRT felt an Exxon representative was needed in Homer. It was concerned with whether CRO equipment was available and what equipment was enroute to WAK.

1400-1700 *GOV'S OFFICE:* The state's Impact Advisory Team was to have moved to Cordova for a workshop there.

1420 *USCG WAK POLREP SIX:* FOSC WAK requested Exxon procure boom to protect critical resources as identified by Homer MAC Group.

1430 *USCG WAK POLREP SIX:* FOSC WAK sent herring net test results and construction details to Incident Command posts in Seward, Homer, and Kodiak, and to Exxon Logistics in Valdez, and asked for their review of assets necessary for such an operation. Also, the IC posts were requested to publicize locally what they were doing and to provide information regarding the use of volunteers.

1500 *ADES:* Winds driven by light low pressure in the GOA allowed good weather and relatively calm seas to predominate. Oil regressed in the west instead of driving onto Kodiak. The new positioning of the oil might have been due to weather but might also be the fact of better and current reconnaissance. The focus of the cleanup was on salvage of the EXXON VALDEZ, mechanical recovery of the oil, and shoreline cleanup mobilization.

Current flight operations indicated that most bays in the Southeast Kenai Peninsula were free of oil due to cold-water flow associated with spring breakup. Oil that was in PWS and southwest to Cutter Islands was broken up into ribbons, stripes of oil, mousse, and some large and thick globs of crude.

1600 *USCG WAK POLREP SIX:* WAK IC posts were scheduled to begin reporting daily updates at this time to the FOSC WAK.

XXXX *ADES:* Adjutant General Schaeffer visited the State EOC, Valdez, to be updated on current operations.

XXXX *USEPA:* The USEPA water-quality team members met at the ADEC office in Valdez with Sandy Mapes, ADEC's quality assurance specialist. Mapes requested they design a sampling plan to assess the chemical and biological impacts of the spill.

To date, ADEC had conducted an initial sampling effort and America North was involved in sampling and analysis efforts. There had been a free exchange of information between the state and Exxon. That was to change, however, as the state had decided it would rather conduct its own sampling and planning. The state was primarily concerned with sampling sites that were of economic concern, i.e., herring spawning areas and hatchery areas.

XXXX *EXXON*: Preliminary approval was obtained from the USCG and eight other agencies for a shoreline cleanup strategy prepared by the Shoreline Cleanup Priority Committee.

1800 *ADES*: Section chiefs at the State EOC met at this, their regular meeting time. However, as most of the sections were in the field, little definitive information was gathered.

1830 *USCG POLREPS THIRTY-THREE and THIRTY-FOUR*: A military C-54 arrived Anchorage with three skimmers and skiffs.  
Exxon requested the USCG track the Russian skimmer's voyage to the GOA.

1830 *USCG POLREP THIRTY-THREE*: 311(k) funds expended: \$4,898,625.

XXXX *ADFG*: In Valdez, hurried construction continued on a school gym being converted into a new rehabilitation center for oiled otters. In the meantime, oiled live otters, along with oiled live birds, were being cared for in rooms of Prince William Sound Community College. USFWS had jurisdiction over the animals.

XXXX *NAVSEA(SUPSALV)*: The last of the USN NAVSEA SUPSALV skimmers for the EXXON VALDEZ oil spill response left the Williamsburg, Va., ESSM base today for Norfolk NAS and Elmendorf AFB. In addition to the equipment supplied, SUPSALV provided nearly 100 personnel to Valdez.  
In all, SUPSALV sent 20 of its 24 MARCO Class V vessel skimmers and both of its MARCO Class XI VOSS skimmers to Alaska. The only vessel skimming capacity left to the Navy was one MARCO Class V in each of the ESSM warehouses (Stockton, Calif., and Williamsburg, Va.), one in Hawaii, and one coming back to Williamsburg from Antarctica by ship.  
(One can easily begin to imagine the gravity of the situation if there had been another great spill in the United States and the Navy's spill response capability was almost totally in Alaska. Ironically, the one skimmer in Hawaii was there because of a response to a 35,000 gallon spill caused by the grounding of the Exxon tanker EXXON HOUSTON March 2, 1989, on a coral reef off Barbers Point of Hawaii's Oahu Island.)

XXXX *ADES*: Staff of ADCRA and the Governor's Office visited Cordova to begin coordination and inform city officials on what programs might be available. The EOC public affairs staff returned from Chenega Bay. Two ADOL staff spent the night on the M/V Aurora to see where advice could be given on protection of workers from chemicals and mechanical devices.  
Ken Taylor from ADHSS Division of Mental Health and Developmental Disabilities and Dr. Gist were in Cordova to meet with mental health professionals.

XXXX *ADN*: The City of Cordova held a press conference at the Valdez Civic Center. City Manager Don Moore complained that Exxon didn't mention Cordova in advertisements apologizing for the spill and that city leaders were not invited to speak at a Congressional hearing last Thursday. Valdez received more attention, but Cordova was harder hit by the disaster, Moore told reporters.

XXXX *USCG WAK POLREP SIX*: USCG C-130 overflight reported first oil sighted southeast of East Chugach Island. Oil appeared to have moved slightly southeast. Areas of heavy sheen/mousse were seen offshore of Chiswell Islands and southwest of Cape Cleare.

The USCGC Yocona was in Seward and the USCGC Planetree was diverted from Homer to Seward. The Yocona and Planetree would be moving 84-inch boom through oil slick in an attempt to break up the slick. The USCGC Morgenthau was to arrive at Southeast Kennedy Entrance, Lower Cook Inlet, to monitor and inspect vessels entering Lower Cook Inlet. Additionally, the FOSC was requesting the use of the USCGC Storis to transport additional boom to critical areas as identified by the Kodiak IC post.

One MARCO V skimmer was on scene. Two bladders were being shipped to Seward for use with skimmers. Additional bladders had been located in Kenai and arrangements were being made to bring one to Seward and one to Homer.

The FOSC WAK and the NOAA SSC attended an evening community meeting in Seward.

An IC post was established with the City of Kodiak, Exxon, state and federal agencies at the Kodiak Borough Building. Booming of critical areas continued on Afognak Island.

2130 *NRT/USCG:* Captain Ryan of the Canadian CG said Canadian skimming equipment had recovered 666 barrels.

-- *USCG POLREP THIRTY-THREE:* The two Canadian CG GT-185 skimmers recovered 666 barrels while their Framo skimmer recovered 59 barrels.

2200 *NRT/USCG:* USCGC Sedge was enroute to Snug Harbor.

2205 *USCG POLREP THIRTY-THREE:* Oil recovery was difficult due to viscosity of oils.

2205 *NRT/USCG:* Summary of cleanup activity provided by Exxon as of this date:

Initial Amount of Oil Spilled -	240 K BBLS
Amount Recovered -	17 K BBLS
Amount Evaporated -	77 K BBLS
Amount Dispersed -	11 K BBLS

Amount in Prince William Sound -	45 K BBLS
Amount in Gulf of Alaska -	45 K BBLS
Amount on Beaches -	45 K BBLS

USCG AIREYE overflights revealed scattered mousse and sheen from Cape Junken to the southern section of Otter Island. Some oil was apparent around Chiswell Islands. Light sheen with thin strands of mousse was apparent north of Hinchinbrook Island. Light beach impacts were observed on the northeastern part of Montague Island.

Exxon divers completed drilling eight stopper holes in the EXXON VALDEZ to arrest fractures.

2320 *USCG POLREPS THIRTY-THREE and THIRTY-FOUR:* Another C-54 arrived carrying two tow boats, a generator, and a basket.

XXXX *ADES:* Thirty aircraft were in use from the AK ARNG, AK ANG, Civil Air Patrol (CAP), and contract aviation sources. Each mission averaged four individual flights. Exxon was scheduling its own flights but it was expected that in the next few days air activities would be integrated. The USCG agreed to add its aviation to this integrated

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effort. Beginning today, Exxon assumed responsibility for all refueling service associated with oil spill support aircraft.

Air operations started the day with 26 missions on its schedule. AK ANG CH-54s carried 64,000 pounds of cargo in nine missions while AK ANG C-12 flew two missions and C-130 flew one mission.

*[AOSC NOTE: The CAP, a volunteer organization, was headquartered in Anchorage, with squadrons in most of the larger communities in the state. The State of Alaska provided planes, fuel, and maintenance for search and rescue missions. In addition, some members owned planes that were also used in emergency situations. In Valdez, the CAP volunteers hauled passengers, did beach surveys, and provided a shuttle service between Valdez and the ferry Aurora. For their mission in Valdez, they had eight planes from around the state and one from California. No member-owned planes were in use.]*

XXXX VALDEZ: Flight operations at Valdez Airport totalled 400.

XXXX USCG POLREP THIRTY-THREE: Boom and two skimmers were enroute to Seward for deployment with a skimmer already there. Additionally, one of the Alyeska skimmers was enroute to Eshamy Bay.

XXPM USCG POLREP THIRTY-FIVE: Twenty-nine skimmer systems were operating and the cumulative total recovered was 17,000 barrels, or 2,000 more than yesterday.

2400 EXXON: The number of Exxon employees, contract personnel, and contract fishermen assembled to respond to the oil spill numbered 1,082: 106 Exxon employees on-site, 620 contract personnel, 237 contract fishing personnel in Valdez, and an estimated 119 contract fishing personnel in Cordova.

Sixteen tons of air cargo arrived today including steam cleaners and sorbent boom. 110 vessels were deployed as were 188,000 boom feet, 29 skimmers, and 18 aircraft.

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

SUNDAY, APRIL 9, 1989  
DAY SEVENTEEN

## Approximate Alaska Local Time

0644 *USAF: Valdez sunrise.*

2051 *USAF: Valdez sunset.*

0145 *USCG POLREPS THIRTY-THREE and THIRTY-FOUR: Another C-5A arrived Exxon staging area Anchorage with a Navy Class V skimmer, two booms, three vans, and two power units.*

XXXX *NRT/USCG: The spill seemed to be stabilizing. USCG reported leading edge of the spill had not advanced in two days. Sheen with streaks of congealed oil extended from northern Naked Island through the lower passages and into the GOA. Heavy sheen was reported around Snug Harbor.*

*Sawmill and Herring Bays and Snug Harbor continued to hold highest response priority. Arriving at Sawmill Bay to join the response effort were a floating hotel (housing 1,000 response personnel), five waste-oil barges, five waste-oil "doughnuts," and 100 small skiffs.*

*USCGC Rush worked 320 aircraft and processed 2,180 radio contacts in the last 24 hours.*

1100 *USCG POLREP THIRTY-FOUR: VECO (Exxon's contractor) and Exxon each had one high-speed boat spotting and reporting oil slicks and boom status to vessels and recovery systems for deployment and collection of oil.*

1115 *USCG WAK POLREP SEVEN: FOSC WAK sent an additional representative to the Seward IC post.*

1155 *USCG WAK POLREP SEVEN: VADM Robbins arrived Anchorage International Airport and was transported to Elmendorf AFB.*

XXAM *USCG POLREP THIRTY-FOUR: USCG requested information from USDOD on the availability of four to five USN vessels to feed and berth Alaska-hired personnel, four to five Navy waste oil barges, numerous waste oil containment bladders of assorted sizes, and 100 small skiffs or (inflatable) rafts with outboard motors for onshore cleanup operations.*

XXXX *USCG: The USCGC Rush continued to act as an air traffic control center, the Ironwood had set mooring systems for 42-inch boom in Sawmill Bay, the Morgenthau was serving as a picket boat near Gore Point and washing down tankers and ships as they moved to Cook Inlet, the Planetree and Yocona were in Seward to work with skimmers and deploy boom, and six additional cutters had been ordered to cleanup assignments. A USCG HU-25 Falcon jet, normally based in Cape Cod, was being used daily to track oil with SLAR and a second SLAR-equipped HU-25 had been requested. More than 400 CG men and women were involved in cleanup operations.*

*A Director of Military Support Oil Spill Task Force was established by USDOD, both in Washington, D.C., and Alaska. The Joint Forces Alaska at Elmendorf were asked to locate hotel barges for 1,000 people, five waste oil barges,*

DAY SEVENTEEN (Sunday, April 9)

and 100 small skiffs as an initial acceleration of DOD's contribution to the effort. A national inventory of available response/cleanup equipment was to be taken.

*[AOSC NOTE: The USCG fact sheet from which this was taken was not clear as to who was to conduct and keep the national inventory of response/cleanup equipment.]*

- XXAM *USCG POLREP THIRTY-FOUR:* FOSC requested checklist of safeguards to go along with an Exxon request for dispersant application.
- 1200 *ADES:* Three AK ANG portable satellite communications sets were being used, one in airfield operations at the airport, one at the ADEC headquarters in Valdez, and the third on the State Ferry Aurora. The communications sets were continuing to support forward staging of supplies and crews at Sawmill Bay. In the last 24 hours, they were instrumental in getting the 1,800 gallon AK ARNG fuel facility operational on the barge at Sawmill Bay.
- Large numbers of unemployed people were in Valdez looking for work and more people were arriving daily. Few jobs were available and most firms were reportedly hiring from out-of-state or out-of-the-area vs. locally.
- 1330 *USCG-ARRT:* Primary attendees at the ARRT meeting were USEPA-Lautenberger, USDOJ-Gates, USDOC-Becker, USDA-Knorr, ADEC-Kent, USCG MSO Valdez-CAPT Haines and CDR Rome, USCG MSO Anchorage-CAPT Roussel, USCGD17-CDR Waldron. Other agencies represented included USDOJ-BLM, MMS, USFWS, and NPS; USDA-FS; USDOC-NWS and NOAA; USDOD-ACOE; ADFG; and ADES.
- Leading edge of the oil had regressed since yesterday. The salvage effort on the EXXON VALDEZ could take longer than initially expected. The NWS was installing several remote weather stations on the north GOA coast.
- Major concerns of the ARRT were that Exxon provide a complete application for its request to use dispersants on the sheen in the GOA and that Exxon provide a representative in Homer.
- 1430 *NRT/USCG:* VADM Robbins, USCG PACAREA Commander, returned to Valdez.
- XXXX *USCG:* USCG VADM Clyde Robbins, Commander Pacific Area, arrived in Valdez today under assignment from Federal Coordinating Director ADM Yost, who was in Washington, D.C., to assume FOSC duties from CDR Steve McCall. McCall was to return to his duties as Commander of the Marine Safety Office, Valdez.
- [AOSC NOTE: The status of LCDR Reiter, who was said to be sharing the FOSC duties with LCDR McCall, was not discussed in this USCG press release.]*
- 1445 *USCG POLREP THIRTY-FIVE:* ADEC reported that mooring anchors for the harbor boom at Sawmill Bay were not holding due to the hard bottom of the bay. It appeared that the problem could be resolved, however the only time that work could be done on the boom system was during slack water, approximately four hours a day.
- 1515 *NRT/USCG:* Joint USNOAA/USCG overflight reported no oil found on Hinchinbrook Island near the Hawkin's Island cut-off.

1600 *USCG POLREP THIRTY-FIVE:* A "Skycrane" airlifted a donkey boiler to a deck barge in Mummy Bay. The boiler was to be used to steam heat tanks containing recovered product to reduce viscosity for pumping purposes.

XXXX *USEPA:* The USEPA water-assessment team overflew the northwest sector of PWS and touched down to look at Elliott Island where there was little or no oil as a possible control site.

1900 *USCG WAK POLREP SEVEN:* FOSC WAK attended a Seward community meeting.

1945 *NRT/USCG:* Aerial reconnaissance reported leading edge of spill was 25 miles southeast of Nuka Island. Slick ran close to the shore from Cape Junken to the vicinity of Resurrection Bay, where fresh water runoff and fjord winds were pushing the spill offshore. Major spill impact was observed in Chiswell Islands due to combination of steep shoreline and high wave energy. Offshore slick appeared as 20-30 mile sheen with widely separated areas of mousse.

Weather hindered cleanup operations. Many skimmers operating in exposed areas headed for more protected waters.

USCG operations totalled 38 hours of flight time.

In the FOSC WAK operational theater, the USCGC Yocona had sailed from Kodiak to Seward and was presently in Seward. A USN MARCO skimmer was on scene. An 84-inch boom at Seward could not be deployed by USCG Cutters Yocona and Planetree due to adverse weather conditions offshore. A test using herring nets to break up areas of oil was considered partially successful.

Two 65,000-gallon capacity bladders were enroute to Seward for use in skimmer operations.

USCGC Morgenthau was stationed at the southeast entrance to lower Cook Inlet monitoring traffic. Remote weather stations were planned for Barwell, Outer, Chugach, and Marmot Islands.

Fourteen thousand feet of boom was deployed at Resurrection Bay and KFNP.

XXXX *USCG WAK POLREP SEVEN:* USCG C-130 reported oil sheen appeared to have moved slightly southwest. Oil continued to be seen in Blying Sound and to impact east side of Cape Resurrection, Chiswell Islands, and Pye Islands.

Remote weather stations were to be established at Barwell Island, Outer Island, E. Chugach Island, and Marmot Island.

USCG Cutter Morgenthau was at southeast Kennedy Entrance to Lower Cook Inlet monitoring vessel traffic. The Storis was awaiting additional boom. The Yocona and Planetree were unable to deploy the 84-inch boom on site at Seward Railroad dock due to adverse weather offshore and lack of technical reps from the boom owner. Additional boom was deployed at critical areas at Afognak Bay and in Resurrection Bay/KFNP.

XXXX *USFWS:* The most recent aerial reconnaissance showed the leading edge of the slick in the GOA. The leading edge tended to break up into tar balls and was regressing. The slick ran near but not on shore except at scattered headlands from Cape Junken to Resurrection Bay area, then southwest to 20 miles south of Gore Point. Meltwater from drainage and offshore winds appeared to be keeping oil off the beaches and out of the bays. Chiswell Island had been hardest hit to date. Oil's leading edge had been stagnated since April 7. Lower Cook Inlet drift data indicated any oil within five to eight miles of shore might move into Kachemak Bay, a state-designated critical habitat area.

2000 *USCG POLREP THIRTY-FIVE:* The Whittier harbormaster was not allowing oiled boats back into the harbor until the boat washing station was on line.

2000 *ADES:* The Operations Committee met. Its current strategy was to maintain personnel safety and hygiene as the highest priority, continue to protect environmentally sensitive areas, attack oil located in lower PWS, attack the leading edge, and do everything possible to minimize the environmental impact on residents of PWS.

Manual shoreline cleaning activities continued on Naked Island. Exxon labor was provided by two general contractors, VECO (421) and Norcon (84). Agreement was reached to start warm-water washing in Naked Island complex.

Some 156,800 feet of containment boom, sea curtain, and twisted absorbent, was enroute to Valdez from locations including Sweden; Toronto, Canada; Long Beach, Calif.; and Seattle, Wash. Thirty-nine heavy oil skimmers were deployed and six were being readied in Valdez. Some 40 additional skimmers were en route including two from Seattle Clean Sound Coop, 14 from the U.S. Navy, and two from France.

Aircraft included two C-130 and one DC-6 spotter planes, one Aerostar spotter plane, twelve helicopters for spotting and observation, one AK ARNG Skycrane, one King Air, one Beaver float plane, two Twin Otters and one Single Otter.

XXXX *USCG:* Daylight transit restrictions still applied at the AMT. Four tankers departed, two arrived, and six were waiting to enter Valdez harbor this day.

XXPM *USCG POLREP THIRTY-FIVE:* Exxon was now providing morning and evening overflights through PWS, Montague Strait, and along the slick past Seward to the leading edge. The aircraft had IR capability to verify the presence of oil. The USCG Airframe did SLAR overflights twice daily to track the movement of the slick down the coast.

XXPM *USNOAA:* The leading edge of the oil had only varied slightly for the last four days and reflected the area in which the sheen and streamers of mousse had sufficiently diffused such that they were no longer visually identifiable as oil. Strong winds expected tonight should increase the mixing and dispersion of the oil in the GOA and push more of the oil remaining in PWS out through Montague Strait.

After the oil left PWS, it should move into the jurisdiction of the USCG MSO. A USNOAA command post was established in Anchorage.

A Gray whale found dead was determined to have died before the time of the spill.

Beach surveys continued at Point Helen, Knight Island, where oil had penetrated 20 cm. into the beach.

Persons collecting animals were being asked to tag them as to where they were found. There were two reasons why more birds hadn't been released from the rehab center: soap scum was still on birds (water softener hadn't arrived), and because wintering birds would go back to PWS and risk reoiling.

XXPM *USCG POLREP THIRTY-FIVE:* Weather hindered the day's cleanup operations. Wind and sea conditions caused many of the skimmers operating in exposed areas to head for more protected waters.



Reports continued to arrive concerning oil slick sightings at Port Nellie Juan but none could be verified. The problem with the reports appeared to be that plankton bloom appeared as oil to the untrained eye.

XXPM

*ADN*: Five layers of boom were in place at Sawmill Bay to protect the hatchery at Port San Juan owned by PWSAC. The latest boom was a heavy duty model set to deflect oil coming from the north, but the other four were lightweight and not suited to heavy weather. However, the new boom had only a 21-inch skirt, not the 42-inch skirt that had been expected. Gale force warnings for the GOA went up Sunday evening. The gale force winds from the northeast expected in the morning should push the oil out of PWS and away from the mainland, but could send it toward Kodiak.

Exxon had hoped to have a floating hotel barge in place at Naked Island and begin work there today. The camp was to be made of a barge carrying housing trailers. However, by Sunday night, the barge had not arrived in Valdez.

Workers had been scrubbing individual stones and pebbles on a beach on Naked Island for more than a week. An overflight Sunday afternoon showed the beach was still oiled but the workers were gone.

XXPM

*USCG POLREP THIRTY-FIVE*: Thirty-nine skimmer systems were operating and the cumulative total recovered was 18,000 barrels, or 1,000 for today.

Military C-5 and C-130 aircraft continued arriving. The day's cache included a skimmer, barrier and sorbent boom, other sorbent materials, and eight 16-foot motorboats.

The Soviet skimmer M/V Vaydaghubsky was enroute from Sakhalin to Seward. It was reportedly 425 feet in length, had a skimming swath of 360-plus feet, and used a weir skimming principle. It would require two 1,000 horsepower tugs. 1,200 feet of the 94-inch sea curtain boom staged at Seward would be needed to rig the vessel's containment system.

XXXX

*USCG POLREP THIRTY-ONE*: The Vaydaghubsky was under time charter to Exxon subcontractor VECO. The Soviets were to provide crew and hull insurance while VECO was to provide pollution insurance. The transit from Sakhalin to PWS was estimated to be 10 days.

XXXX

*ADES*: The AK ARNG flew two undescribed UH-60 missions and two CH-54 missions that carried telecommunications equipment. The AK ANG had two C-12 and four C-130 missions.

XXXX

*VALDEZ*: Flight operations at Valdez Airport totalled 376.

XXXX

*ADES*: The Incident Communications Center (ICC), staffed by ADES, monitored all frequencies, coordinated emergency needs on a 24-hour basis, and provided dispatch operations for ADES as well as associated agencies. Communications were on two primary command nets. Exxon Operations were on the National Oil Spill VHF frequencies. State/ADEC operations were on the Alaska Division of Forestry VHF net. USCG operations were on the USCG private nets (Channels 13/16). The Exxon Communications Center provided Exxon dispatch operations and logistical traffic to marine vessels and skiffs and ground crews and monitored other frequencies as required. ADEC Dispatch provided operational dispatching to ADEC Staff. The USCG provided operational dispatching to USCG staff and monitored state and Exxon frequencies.

The state had two Alaska Division of Forestry repeaters in service at Jack's Peak (which covered northeast Sound and Valdez), Naked Island (which covered

DAY SEVENTEEN (Sunday, April 9)

central Sound) and was expecting the Montague Island repeater to be on line virtually immediately (for coverage of southeast Sound and some of coast beyond Seward.) Exxon UHF had a repeater at Naked Island/Latouche Island (good coverage of portables in northeast Sound, fair coverage to base stations in central Sound), one expected on-line at Montague Island (for coverage of southwest Sound) and one projected but no installation date scheduled for Esther Island (for coverage of northwest and central Sound).

Additionally, ADEC field personnel were able to cross-communicate by Marine VHF to vessels, skiffs, and ground crews. The Marine VHF was the primary ground/water-level system. Frequencies were universal to most boats and programmable to state VHF synthesized radios. Also, USCG marine transceivers were accessible from most Sound areas for backup. Completion was estimated April 10 for additional VHF Marine Channel 10 on Naked Island and Channel 14 on Latouche Island with microwave links to the ICC.

The USCG was to remote drop High Band HF-SSB Radio to Valdez with drop in ICC and Exxon dispatch. Radio was also to be reconfigured to the frequency most common to local vessels. A field station was currently manned at Chenega Bay and, when completed, microwave link would allow use of Cordova-based HF radios.

The USFS VHF system covered most of PWS with repeaters and radio links to their Cordova headquarters. Permission was granted to use this system on a backup/emergency basis. The system was also linked to Cordova police headquarters after hours. The USFS was planning to extend to a temporary Valdez office and had agreed to a drop into the ICC. USFS personnel in the field to monitor cleanup efforts were to have their frequencies published for emergency use.

XXXX      *ADEC: The "Oil Spill Impact Assessment Office" established by ADFG in Cordova was developing approximately 30 projects related to impact on fisheries.*

2400      *USCG POLREP THIRTY-FIVE: 311(k) expenditures to date were \$6,345,035.*

2400      *EXXON: Ninety tons of air cargo arrived today including a portable boiler, oil solvent pads, pumps, booms, generators, and absorbent hoses. 151 vessels were deployed as were 200,000 boom feet, 39 skimmers, and 22 aircraft.*

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

MONDAY, APRIL 10, 1989  
DAY EIGHTEEN

## Approximate Alaska Local Time

0641 *USAF:* Valdez sunrise.

2054 *USAF:* Valdez sunset.

XXXX *NRT/USCG:* Leading edge of the slick was located 20 miles south of Nuka Sound. USCGC Sedge conducted shoreline survey of Snug Harbor with a small boat. Only a very light sheen was observed approximately one mile offshore. Four-foot wide band of black oil was observed at the high-water mark on the beach.

*USDOI-FWS* personnel continued shoreline aerial survey from PWS to Kodiak. On the ground, a survey of deceased wildlife was conducted on the north end of Knight Island.

*USCGC* Rush worked 324 aircraft, processed 2,192 radio contacts, and then put into port for logistics resupply. The Rush was relieved of air traffic control responsibilities by the Sedge.

Poor visibility and high variable winds hampered overflight assessments.

XXXX *AV WEEK:* The temporary air traffic tower at Valdez airport was averaging 400-500 operations a day, making it the third busiest airport in Alaska. The aircraft were being used primarily to transport workers involved in containing and cleaning up the oil spill and analyzing the environmental impact.

Aviation fuel was trucked overland from Anchorage to Valdez. Servicing crews were pumping up to 17,000 gallons of fuel a day.

A fleet of 29 civilian and seven military helicopters were based at Valdez. Exxon controlled 18 and ADEC controlled five of the civilian helicopters.

The AK ARNG had been operating a Sikorsky CH-54 Skycrane to airlift 6,000 pound pumps and other equipment to the stricken EXXON VALDEZ. A Bell-206 was involved in transporting stricken otters (carried in cages because they bite) to the rehabilitation center. Almost all the helicopters were equipped with either fixed floats or pop-out floats that could be deployed for an emergency landing in the water.

Normally there was no night flying into Valdez, but during the cleanup operations several CG C-130s carrying equipment had arrived at night in clear weather.

Flight activity was also picking up at Cordova.

0800 *USCG POLREP THIRTY-SEVEN:* The USCG SLAR flight over the GOA resulted in inconclusive data due to rough sea conditions.

0800 *USEPA:* At the ISCC meeting, Exxon proposed a three-person pre-cleanup assessment team which would prioritize as well as recommend how to clean various sections of beach. These recommendations would in turn be submitted to the full ISCC for approval.

0900 *USCG POLREP THIRTY-SIX:* An Exxon shoreline cleanup crew of about 120 personnel were actively working on shoreline cleanup on the northeast shore of Naked Island. The crew used sorbent material to soak up oil pools and clean rocks.

DAY EIGHTEEN (Monday, April 10)

An archaeologist was to be on scene to inspect the area before water flushing would be permitted.

0940 *USCG WAK POLREP EIGHT:* Seward IC post was unable to transport FOSC WAK and Exxon representative to Homer/Seldovia due to lack of aircraft.

1000 *USCG POLREP THIRTY-SIX:* The FOSC met with Exxon, State of Alaska, and USEPA representatives to discuss dispersant application. Exxon proposed to spray an area approximately 30 miles offshore between Cape Resurrection and Cape Fairfield in the GOA. The National Science Foundation told USNOAA that the dispersant application probably would not work due to the emulsification of the oil, but advised that under the conditions proposed environmental damage was unlikely.

XXAM *USCG POLREP THIRTY-SIX:* Sorbent boom was installed inside the boom surrounding the EXXON VALDEZ to provide additional protection. No oil was being released by the vessel except when divers beneath the vessel exhaled air into a tank fracture and released a light sheen.

The deck of the EXXON VALDEZ was safe for helicopter landings; however, the marine inspector on board advised all approaching aircraft to contact him for deck conditions before landing attempts.

XXAM *USCG:* A USCG fact sheet for the day began with this statement: "Rumor Control." It went on to say that there were no current plans to use military troops for beach cleanup. The current focus was on the USDOD to provide logistics support.

-- *USCG POLREP THIRTY-SIX:* World-wide media interest remained high and was mostly aimed at USDOD involvement. There was a misconception that ground troops would be arriving soon in Valdez to begin beach cleanup. USDOD's role was logistics, not personnel, although a DOD Assessment Team was expected to arrive in Valdez to determine how DOD could best help.

XXAM *USCG POLREP THIRTY-SIX:* Gale warnings were in effect. Skimmers stayed out of the weather using sheltered areas in Sawmill and Mummy Bays.

The Alaska State Ferry Aurora was enroute to Herring Bay to serve as a floating hotel and logistics platform for Exxon crews.

XXAM *USCG POLREP THIRTY-SIX:* A joint Exxon, USCG, and State of Alaska command and control communications UHF repeater was operational covering PWS. Exxon provided UHF hand-held radios which were issued to the USCG cutters and MSO personnel for operational coordination.

The USCG had 442 personnel assigned to the spill: 115 were in the MSO, 150 were assigned to the Rush, 67 were assigned to the Sedge and 53 to the Ironwood, 12 were providing regional USCG support, and 15 were Strike Team members.

Other federal personnel numbered 186 including DOI-30, USDA-1, NOAA-20, EPA-7, FAA-11, DOC-15, USN-89, AF-5, and other-8.

The Cordova boat washing station began operating.

1200 *ADES:* The AK ANG satellite communications sets were being used to provide communications between Valdez airfield operations and the command post at Kulis AK ANG base, Anchorage.

ADEC had reported that the blank checkbook days were over as Exxon had assumed approval authority for almost all expenditures relating to oil cleanup activities.

DAY EIGHTEEN (Monday, April 10)

1300 *USCG POLREP THIRTY-SIX*: ARRT teleconference was held.

-- *USEPA*: Exxon submitted its request to use Corexit 9527 dispersant.

-- *USCG-ARRT*: Primary attendees at the ARRT teleconference were USDOJ-Gates, USDOC-Becker, USEPA-Kellogg, ADEC-Kent, USCG MSO Valdez-CDR McCall and CDR Rome, USCG MSO Anchorage-CAPT Roussel, USCGD17-CDR Waldron. Other agencies represented included USDOC-NWS; USDOJ-NMFS, NPS, MMS, and FWS; USDOD-ACOE; USDA-FS; ADES; and ADFG.

Weather conditions hampered aerial surveys and skimming.

Exxon had presented an application for use of dispersant on mousse in the GOA. A decision was pending. Some members were concerned. Especially, if the dispersant worked in the GOA, would Exxon be allowed to use dispersants at the mouth of Montague Straits as had been suggested?

1400 *NRT/USCG*: USCGC Ironwood, enroute Snug Harbor to Valdez, was reporting every five miles on concentrations of oil. The Ironwood reported light sheen 500 to 1,000 yards wide between Sleepy Bay and Point Helen. Several ribbons of oil approximately 10 X 420 yards were reported three miles south of Discovery Point.

XXXX *McCLINTOCK*: Workers in the City of Seldovia divided themselves into teams and started assembling sand bags, boats, and skiffs, and constructing seine boom and log boom. Their objective was to build 8,000 feet of log boom to protect Seldovia Bay and the harbor.

XXXX *ADES*: A newsletter issued by the State EOC explained that the EOC's purpose was not cleanup but to deal with short- and long-term needs of the response, such as the physical and mental health of disaster members, worker safety, local hire, community needs, public safety, and communications. :

XXXX *USEPA*: *USEPA*'s Ron Kriezenbeck replaced Kellogg as the agency's incident coordinator.

The *USEPA* water-quality team added a fourth person. Team members had decided to chemically analyze sediment, water, and shellfish tissue samples, and to assess sediment toxicity. They decided it was important to look at both moderately impacted areas as well as heavily oiled beaches. They were concerned about the validity of designating beaches as ecologically sensitive based solely on economic resource endangerment (hatcheries or herring areas) when there were many areas important as feeding, migration, or reproduction zones for species that were not directly economic in nature.

Region 10 wanted to improve coordination between USNOAA, USNMFS, Exxon, and state sampling efforts, and was charged with drafting an umbrella sampling plan to that end.

XXXX *USEPA*: A test burn was conducted onboard an incinerator ship at Whittier. Exxon planned to use the Whittier incinerator for boom.

1800 *ADES*: In the past 12 hours, a low-pressure weather front had hindered any large-scale air operation and the USCG returned to safe harbors the skimming and mechanical recovery operations.

1800

*ADES:* EOC Public Safety Section Report: Alaska State troopers and Fish and Wildlife troopers continued their investigation in the grounding of the EXXON VALDEZ. State troopers from Talkeetna, Palmer, and Glenallen had been rotating through Valdez this week in an effort to augment the resident trooper and the Valdez Department of Emergency Services. No major events marked the week, but a large number of traffic citations were issued by the additional personnel, along with the Special Traffic Enforcement Program troopers who patrolled the Richardson Highway over the weekend.

Two new 4 X 4 patrol vehicles were delivered this week to replace overage units which had been in service for six years. A 17-foot fiberglass quick-response patrol boat was delivered and was in service at the downtown dock for rapid deployment in situations which could arise inside the harbor or at the AMT.

1845

*NRT/USCG:* USCGC Storis was loaded with approximately 2,000 feet of membrane-type boom for transport to Kitoi fish hatchery at Afognak Island.

At FOSC WAK zone, gale force winds and 20-foot seas prevented offshore operations. 2,100 feet of boom was deployed at Tutka Bay fish hatchery. Two Navy MARCO skimmers with USCG bladder arrived at Homer. Six fishing vessels equipped with herring nets departed Kodiak to join 30 other fishing boats at Seward to form a mobile response unit in an attempt to break up oil patches off Cape Resurrection. An additional 10,000 feet of boom was to be deployed with these vessels.

Exxon established an otter cleaning station in Seward.

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*USCG WAK POLREP EIGHT:* MARCO V skimmers and support boats were deployed at a sheltered location near mouth of Resurrection Bay awaiting favorable weather for skimming. Some boom was deployed at Tutka Bay fish hatchery, Homer. Two additional Navy skimmers and USCG bladder were on scene at Homer City Dock but there was no boom in Homer other than that already deployed.

XXXX

*ADEC:* Efforts to anchor a large U.S. Navy boom at Sawmill Bay were unsuccessful because large anchors to hold the boom were unavailable. Approximately 14,00 feet of boom was deployed to critical areas at Resurrection Bay/KFNP.

ADFG opened new oil spill information and response centers in Seward, Homer, and Kodiak. These were in addition to the Cordova assessment office.

XXPM

*USCG POLREP THIRTY-SEVEN:* The USDOD JTF Assessment Team, minus the Navy rep who had not yet arrived, toured the spill area despite the low visibility and then met with Exxon, USCG, and state officials. The initial observation of the group was that the present response strategies addressed local concerns.

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*ADN:* The heads of a 21-member JTF Assessment Team (Army, Navy, AF, USCG, and ACOE) passed through Valdez for an orientation visit on their way to Elmendorf AFB. Oil spill experts said the President's response to send in a military assessment team vs. hundreds of troops would probably be better than having boots trampling oil-soaked islands.

XXXX

*USNOAA:* Most of the overflights scheduled for the day were cancelled or aborted due to high winds and low clouds. Low visibility was expected for the next several days until a weakening low pressure system positioned southeast of Kodiak Island dissipated.

Beach surveys showed oil moving into previously unoiled areas and some areas that had been impacted initially were beginning to see self-cleansing.

DAY EIGHTEEN (Monday, April 10)

Pre-cleanup beach assessment was to be done by a three-person team consisting of an archaeologist, a biologist, and a scientist.

Twenty-five hundred otters were estimated at risk. Otters received at the rehabilitation center suffered severe lung and liver damage while birds experienced intestinal hemorrhaging and secondary lung infections. Harbor seals observed at haulouts appeared to experience eye irritation due to oiling; there were no permits yet for live capture to study this problem.

Exxon requested approval from USEPA and the state to apply dispersants to large patches of mousse in the Gulf. Otter pathologists objected because of the increased toxicity to otters.

XXXX *USNPS:* High southeast winds moved oil onshore in some locations, including Aialik Cape within KFNPN. A storm broke up large areas of oil.

-- *ADFG:* Oil reached the shores of KFNPN and the Alaska Maritime National Wildlife Refuge. The area, with over 700 islands, was home to many seabirds and marine mammals.

XXXX *USNPS:* ICT branches in both Homer and Kenai were operational.

A public meeting in Seward attracted about 100 people for USNPS, Exxon, and USCG briefings.

XXXX *ADES:* The governor was briefed in Juneau by "team members" representing the Office of the Governor, the Attorney General, and Alaska Department of Commerce and Economic Development (ADCED), following their meetings with community and business leaders in Valdez.

XXXX *ADN:* The spill from the EXXON VALDEZ thrust the community of Valdez into an economic boom unmatched since the 1970s when pipeline terminal construction filled barges and tent cities with eager workers. Estimates pegged the town's size now as nearly double its normal wintertime population of 3,500. Bureaucrats, oil executives, and the media had snapped up every available hotel room and local residents were renting out their spare rooms, couches, and hide-a-beds.

Transient workers were close behind; more than 700 had signed up for oil spill cleanup work through the local office of the Alaska State Job Service. City crews plowed a spot on the harbor spit for trailers and tents while others slept in cars parked on city streets.

Restaurants and bars were overflowing. One popular spot had two-hour waits for dinner and shoulder-to-shoulder crowds at its bar. Groceries, hardware, and sporting good stores were rushed for supplies. Tourist-dependent merchants were not so lucky however and they feared for their futures. Meanwhile, a dramatic increase in bar fights, thefts, and speeders had been noticed. City police, garbage, street, and park crews were working overtime.

XXXX *VALDEZ:* Flight operations at Valdez Airport totalled 125, in the third lowest day since the spill.

XXXX *ADN:* Because of the weather, the USNOAA observation flights didn't get up at all. In the morning, weather caused by two low-pressure systems brought drizzle and 45-mile per hour winds out of the north and east. Monday night the winds were shifting to come down from the south and had slowed down to between 15-20 miles per hour.

DAY EIGHTEEN (Monday, April 10)

The rows of boom protecting the fishery at San Juan Bay on Evans Island in the Sound's southwest corner held. However, the anchors on the Navy boom were too light to hold it in place and it kept moving.

XXXX

*USCG POLREP THIRTY-SIX:* 311(k) expenditures totalled \$6,625,690.

2400

*EXXON:* Thirty-nine tons of air cargo arrived today including hose, generator parts, pumps, and oil snare. 151 vessels were deployed as were 211,000 boom feet, 38 skimmers, and 26 aircraft.

DAY EIGHTEEN (Monday, April 10)



# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

TUESDAY, APRIL 11, 1989

DAY NINETEEN

## Approximate Alaska Local Time

0638      *USAF: Valdez sunrise.*

2056      *USAF: Valdez sunset.*

0340      *NRT/USCG: USCGC Morgenthau was ordered to mouth of Resurrection Bay to coordinate effort to break up oil by fishing vessel fleet and Exxon spotter plane.*

XXXX      *NRT/USCG: A total of nearly 200,000 feet of boom was deployed to protect endangered areas in PWS. Included were 85,000 feet of containment boom, 98,000 feet of absorbent boom, and 12,000 feet of boom surrounding the EXXON VALDEZ anchored off Naked Island.*

Thirty-nine skimming operations shut down by rough seas on April 10 had yet to resume operations in the natural collection areas of Snug Harbor, Sawmill Bay, Point Helen, Latouche Passage, and Herring Bay. Over 80 people were involved in the cleanup of Naked Island, with 500 more workers expected to join clean-up efforts by April 13.

Oil moved westward, forming long, well-defined bands of mousse along the eastern shore of Latouche, Knight, and Ingot Islands. Light sheens were observed in Main and Eshamy Bays. A large patch of sheen/mousse combination, approximately six-miles long and two-miles wide, was observed west of Eleanor Island, extending nearly into the entrance of Main Bay.

Small amounts of sheen and mousse were observed in the Perry Island area. Herring Bay was still heavily oiled. A large band of sheen and mousse paralleled the southeast end of Knight Island. Bay of Isles beaches were also heavily oiled. Wind and wave conditions over the past two days had mixed and dispersed the larger concentrations of oil into open waters of PWS.

Exxon divided PWS into four quadrants, each with a command and control vessel (with USCG PACAREA Strike Team member aboard) to coordinate recovery operations. Quadrant Zone One represented the area north of Knight Island; Zone Two, the area west; Zone Three, the area east; and Zone Four, the area south of the island. Areas other than PWS were designated Zone Five.

The EXXON VALDEZ was the subject of a diving survey. Repairs were made to fractures in the hull on Tank 4S. The vessel's engines were checked and considered operational. To date, 19,000 barrels of oil had been recovered, but bad weather hindered future recovery operations.

0830      *USCG POLREP THIRTY-EIGHT: The USCGC Rush was underway to relieve the Sedge of air traffic control duties.*

XXAM      *USCG POLREP THIRTY-EIGHT: U.S. Navy support (from NAVSEA SUPSALV) included 94 contractor personnel, 20 vessel skimmers, two VOSS skimmers, 10 tow boats, 11 boom vans, 20 mooring systems, two shop vans, two rigging vans, two command vans, two cleaning vans, four inflatable boats, and one pump system.*

The U.S. Air Force had flown 34 missions and delivered 944 tons of equipment and materials.

DAY NINETEN (Tuesday, April 11)



The Alaska National Guard had assigned 68 AK ARNG and 25 AK ANG personnel, two CH-54 helicopters, one C-12 fixed wing aircraft, one 15-ton wrecker, eight trucks, a water trailer, three passenger vehicles, five radios and a computer system. Support areas were in communications, flight operations, fuel operations, public affairs, and interagency coordination.

XXXX *ADES:* Several Alaska State trooper radio dispatchers were to arrive Valdez to assist in radio communications at the ICC.

1200 *USCG POLREP THIRTY-EIGHT:* The Helenka B, under contract to Exxon as a command ship, started recording information from aircraft in flight over VHF radio in order to speed corrective measures in skimming and booming operations.

1215 *USCG POLREP THIRTY-EIGHT:* Exxon sent 2,000 feet of absorbent boom to Whittier. A skimmer and retriever boat were diverted to Port Nellie Juan in response to continuing reports of oil.

1445 *NRT/USCG:* Potato Point Radar Site became inoperative, forcing the FOSC to close the Valdez Narrows to vessel traffic.

1500 *NRT/USCG:* Potato Point Radar Site was reactivated and port reopened.

XXXX *NRT REPORT:* On March 27, Governor Cowper had requested a Presidential declaration of an emergency under Title V of the Stafford Disaster Relief Act. Specifically, he had asked for the appointment of a federal coordinator and for technical and advisory assistance to the federal, state, and local governments. Today he heard from the director of FEMA advising him that the National Oil and Hazardous Substances Pollution-Contingency Plan (NCP) was operating. The NCP, the governor was told, already provided the federal coordinator and technical assistance specified in his request.

XXXX *USNOAA:* Improved visibility and higher ceiling made several overflights possible. Strong winds in the GOA may have further dispersed the oil in coastal waters. The oil was migrating and beaches previously unoiled were becoming oiled.

Dead birds stored in the Valdez freezer van numbered 1,307 while dead otters numbered 60. Of 224 birds brought in alive, nine had been released and 105 birds remained alive in the rehabilitation center. Of 106 otters brought in alive, 51 remain alive at the center. Five of the six otters sent to California had died.

The new otter facility was able to handle well over 100 otters. While progress was being made on pathology, there was no way currently to treat otter lung damage. Plans to send a few otters to aquariums were reinstated in order to improve the pathology and monitor long-term effects.

ADFG recommended no cleanup of designated anadromous streams.

Beach cleaning processes were tested today. Low-pressure flushing proved successful in MacPherson Bay. A floatel accommodating 110 cleanup people was to be in place on April 12.

The MAC Group in Seward was identifying areas for protection, conducting pre-impact assessments, and looking at cleanup priorities. A similar group was in the Mayor's Office in Kodiak.

USCG WAK oil spill command posts were now in Seward, Homer, and Kodiak in addition to the MSO, Anchorage.

- XXXX *USFWS:* A USNOAA overflight showed that gale winds in the GOA Monday and early Tuesday effectively broke much of the slick. Leading edge of the slick in the GOA retreated thirty miles from its observed position on Sunday. Heaviest oil lay north of Knight Island. Well-defined bands of wind-blown mousse were present on southeast Knight Island and east Latouche Island. In the GOA, oil sheens were seen just southeast of Barren Island and the south tip of Kenai Peninsula. The contamination threat to Kodiak Island continued to lessen.
- XXXX *USNPS:* USCG reconnaissance found oil along the east sides of all points of land extending gulfward from Resurrection Bay to Gore Point, but little or no visible sheen in the bays. Since the storm on April 10 which broke up large areas of oil, there was less visible oil on the water.
- XXXX *ADFG:* Oil moved around the tip of the Kenai Peninsula, just below English Bay.
- XXXX *ADEC:* Visual observations from overflights put the leading edge of the oil 250 miles southwest of Bligh Reef.
- XXXX *USEPA:* Veterinarians at the otter center asked for rapid analysis of the mousse and water-column samples to help determine what was affecting otters. They wanted to know the chemical characteristics of the oil and how it was changing with time.  
Beach cleaning on Naked Island was ineffective. The technique being used was low-pressure/high-volume wash.
- XXXX *ADEC:* Difficulties deploying mooring systems for the boom at Sawmill Bay were still being experienced. Chartered depths were inaccurate due to bottom changes presumably caused by the 1964 earthquake. Some locations were considerably deeper than charts indicated. Also, a four to five knot current and hard rock bottom resulted in anchors slipping in some locations. Corrective measures were being looked at.  
About 2,100 feet of boom was deployed to Tutka Bay fish hatchery. About 2,000 feet of boom was being transported to Kitoi fish hatchery, Afognak Island. Sorbent boom was installed inside the boom surrounding the EXXON VALDEZ for additional protection.
- XXXX *McCLINTOCK:* The log booms utilized for protection of the Kitoi hatchery on Afognak Island were not considered effective. Commercial type booms were more effective for that purpose.
- XXXX *ADEC:* ADEC approved a test for chemical dispersants on the spill in the GOA. The test was required to be conducted by 1900 on April 13. ADEC provisions required that the test be conducted at least five miles from shore, in good weather, with adequate communication, documentation, and water sampling. Radio tracking buoys were to be deployed, both in the test area and in an untreated part of the spill.
- *USEPA:* Exxon proposed that 20,000 gallons of dispersants be dropped in six sorties on large patches of mousse located in the GOA. ADEC and USEPA provided their approval but set several requirements for the test including that: the dispersants be used at least five miles offshore, visibility be good, state and federal observers view the test, the observer boats and the plane be able to communicate, photographs document the test, ocean currents be documented, 15 water samples be taken pre-dispersant and again post-dispersant for chemical analysis, a maximum of 26,000 gallons be applied, and the test be conducted prior to 1900 hours on April 13 or 16.

The weather could obviate the need for dispersants. Environmentalists were unhappy about the decision to use additional dispersants.

XXXX

**ADN:** The USCG said today that on Sept. 3, 1986, COTP CDR Steve McCall issued an order allowing tankers to pass through most of PWS without a licensed pilot at the helm at any time of day or night provided visibility was greater than two miles. This contradicted earlier statements by the USCG and Exxon that only a licensed pilot could command a tanker through PWS. However, the 1986 order also required that a tanker journey from the Port of Valdez to Bligh Reef at all times be under the command of a licensed pilot. Thus Captain Hazelwood was still in violation of navigation rules for turning over the bridge to 3rdM Cousins somewhere between the Valdez Narrows and Bligh Reef.

XXXX

**USCG:** Daylight tanker restrictions still applied. Two tankers departed and two arrived at the AMT.

XXXX

**USCG POLREP THIRTY-NINE:** The inflatable boom around the EXXON VALDEZ could not be kept inflated and efforts were underway to replace it. No sheen was observed outside the boom.

The Navy salvage team reported many of its skimmers were badly in need of maintenance. They were awaiting the arrival of their maintenance gear by vessel and were to do the work on scene.

Two French skimmers were deployed, one to Naked Island and one to Snug Harbor. A large quantity of oil trapped inside the USCG barrier skimmer system at Snug Harbor was being pumped out. A CG Strike Team member requested waterborne vs. airborne monitoring of skimming operations, saying that more accurate reports were required.

Five-hundred-gallon bladders of gasoline and cases of two-cycle oil were deployed or enroute for deployment at Cabin, Louis, Eshamy, and Ogalok Bays and the deck barge at Herring Bay.

A 135,000 barrel barge was deployed from the Valdez area to Seward to be poised to receive oil collected by the Soviet skimmer.

The USCG requested the assistance of the Army Corps of Engineers dredge Yaquina for skimming operations. The ACOE dredge was to depart Portland, Ore., where it was stationed, as soon as possible.

USCGC Rush was on station acting as air traffic controller.

Divers completed a hull survey and repairs to a fracture in the hull of Tank 4S. Repair was underway of a fracture in the bulkhead. This was the last repair anticipated to keep that tank watertight. The vessel's engines had been checked and were considered operational. Forty-five hundred barrels were skimmed from tanks 3C and 4C to the slop tank.

792 persons had attended Exxon's health and safety training sessions in Valdez, Cordova, Tatitlek and Chenega.

311(k) expenditures to date totalled \$6,901,750.

XXXX

**ADES:** The EOC Logistics Section focused on continued coordination of the use of ADNR and USDOI-BLM fire defense resources. ADEC relocated to larger offices in the Keystone Mall in Valdez.

Air-related activities of the AK NG appeared to be subsiding. All helicopters in use, except for the Skycrane, were contracted from commercial sources. The smaller refueling truck had been replaced by Exxon-furnished services. The Guard Pathfinders (cargo riggers and slingers) were still fully active as they had been since

this operation commenced. Also, Guard satellite communications assets (six sets) were fully committed to the operation.

- XXXX *USCG*: *USCG C-130's* airlifted more than 11.25 tons of cleanup equipment.
- XXXX *EXXON*: Of the 41 skimmers deployed by April 12, 14 were provided by the USN and one by the *USCG*. Additional USN and *USCG* equipment were being readied for deployment.
- XXXX *USCG WAK POLREP NINE*: Skimming operations out of Seward using 84-inch boom, USN skimmers, and *USCG* Cutters Planetree and Yocona were delayed pending arrival of a power pack. Weather permitting, they would begin tomorrow. The *USCGC Morgenthau*, operating within twelve miles off Cape Resurrection, reported seeing only sheens and some tarballs with only one small four-five foot diameter patch of mousse. No patches of suitable oil for herring net operations were seen at mouth of Resurrection Bay. The Cutter Iris was directed to Kennedy Entrance to check vessels northbound to Cook Inlet for oil.
- Sea curtain and dredge boom were deployed at Kitoi Bay Hatchery, Portage Bay, and Discovery Bay. Boom and sorbents with fishing vessels for deployment as necessary were at Ouzinkie and Izhut Bay.
- The FOSC WAK visited Kodiak, Seward, and Homer for community meetings, checked on operations, and met with Exxon representatives.
- XXXX *ADES*: Prince William Sound Recovery Project activities continued in Cordova. Several representatives from Elmendorf AFB toured Cordova to assess the capabilities of facilities in Cordova for use in cleanup operations. The psychologist under contract to ADHSS prepared a briefing paper for Cordova. Businesses there were planning for an upcoming meeting with a disaster team from the Sacramento, Calif. office of the U.S. Small Business Administration (USSBA). ADFG was conducting interviews to hire 80 locals. A boat cleaning station was being established in Thumb Bay of Knight Island.
- XXXX *ADES*: A Homer public meeting was attended by approximately 250 people. Items discussed were local hire, local ideas and input to the response, economic loss, fisheries closure, and Exxon.
- XXXX *USCG WAK POLREP NINE*: Two pallets of boom arrived in Homer as did an Exxon operations representative and an Exxon logistics representative. A skimmer with collection boom was placed in the water. Two vessels were standing by to support the skimmer.
- 2400 *EXXON*: 152 tons of air cargo arrived today including pumps, valves, boom, generator sets, video equipment, facsimile machine, and hot-water pressure washers. 151 vessels were deployed as were 211,000 boom feet, 39 skimmers, and 26 aircraft.

DAY NINETEN *(Tuesday, April 11)*  
-6-

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

WEDNESDAY, APRIL 12, 1989

DAY TWENTY

## Approximate Alaska Local Time

0635      *USAF:* Valdez sunrise.  
2059      *USAF:* Valdez sunset.

XXXX      *ADN:* For the first time in 15 years, the U.S. House Interior Committee gave a subcommittee subpoena powers in order to command witnesses and documents for its investigation of the PWS sound oil spill. The action positioned the Energy, Water and Offshore Energy Resources Subcommittee, headed by Rep. George Miller (D-Calif.) as the most powerful congressional panel delving into the March 24 oil spill and related oil-development issues.

XXXX      *USCG:* Five tankers were waiting to enter Port Valdez this morning. Three pairs of tug boats were available to escort tankers into the Port. Before today there had been only two pairs.  
            According to a "rumor control" item in a USCG fact sheet, Exxon had not refused the assistance of the U.S. Army.  
            One CG HU-25 Falcon jet, normally based in Cape Cod, was being used daily to track oil with SLAR/AIREYE.

XXXX      *NRT/USCG:* A USCG helicopter overflight reported leading edge of the slick was located 30 to 40 miles southeast of Gore Point. Snug Harbor and the Bay of Isles were relatively free of oil but shorelines were extensively oiled.

XXXX      *ADEC:* Skimmers at Herring Bay were redeployed to Port Nellie Juan as the threat of new oil stands hitting yet unscathed beaches created a higher priority for response.

0930      *USCG POLREP FORTY and FORTY-ONE:* Observers were in the air to watch a second dispersant application in the GOA.

1000      *USCG WAK POLREP TEN:* FOSC WAK dispatched an additional FOSC representative to Homer.

1000      *USCG POLREP FORTY:* The USCG requested the 311(k) ceiling be raised by \$4 million.

XXXX      *USEPA:* Kriezenbeck, USEPA's OSC, sought clarification from headquarters on the agency's role in the restoration phase of the spill.

1330-1445      *USCG POLREP FORTY-ONE:* ARRT meeting teleconference held.

--      *USCG-ARRT:* The ARRT teleconference was attended by primary members USEPA-Lautenberger, USDOJ-Gates, USDOC-Becker, USDA-Paul, USCG MSO Valdez-CAPT Haines and CDR Conway, USCG MSO Anchorage-CAPT Roussel, USCGD17-CDR Waldron. Others attendees represented USDOC-NWS and NMFS, USDA-FS, USDOD-ACOE, USDOJ-FWS and NPS, USDOL-OSHA, ADES, and ADFG.

DAY TWENTY (Wednesday, April 12)



ADEC was working on transferring to Exxon the contracts it had with refueling barges and workers. USDOL-OSHA now had a representative in Valdez for assistance with safety problems that could not be resolved by other means.

The ARRT discussed the question of hydrocarbon contamination on the water. Samples done early on in the spill indicated potential harm to aquatic organisms. A second testing was begun today. The ARRT was also concerned about whether customs might determine some foreign procurements not appropriate for the emergency entry provisions that were being used.

XXPM

*USCG POLREP FORTY-ONE:* The U.S. Customs Service was looking into problems associated with the contracting and use of the influx of foreign-owned cleanup equipment.

OSHA was now represented on the Alaska ARRT. USNOAA continued to drop markers at the leading edge of the spill and in Montague Straits to monitor spill movements.

Skimming and booming continued in Sawmill Bay, Herring Bay, Point Helen, and Perry Island.

Shoreline cleanup crews were engaged on Naked and Bass Islands. Overflights revealed the oil was washing from the beaches in the form of a light sheen instead of the anticipated globs of oil.

Oil was just off the southeast corner of Knight Island. Additional oil was sighted between Port Nellie Juan and Knight Island Passage. Four oil skimmers were recovering small patches of oil sheen in Sawmill Bay; no oil was sighted yet in the immediate vicinity of the hatchery.

Exxon estimated 20,000 barrels of oil recovered to date and an additional 40,000 barrels remaining. Thirty-five hundred more barrels of oil were removed from the damaged tanks of the EXXON VALDEZ.

Boat washing stations were operating in Valdez and Cordova and were pending in other areas.

1335-1415

*USCG POLREP FORTY-ONE:* RADM Nelson flew from Valdez to Elmendorf AFB.

1430-1745

*USCG POLREP FORTY-ONE:* RADM Nelson briefed Commandant Yost.

1530

*USCG POLREP FORTY-ONE:* Dispersant test was aborted due to fishing vessels in the test area, a communications break down, and poor visibility.

--

*ADN:* Six planes took off for the Gulf of Alaska to drop dispersant chemicals on a large area of emulsified oil threatening Nuka Island, near the southern tip of the Kenai Peninsula. But no one told a boat that was to sample the effects of the drop where it was to take place. The mission was finally scrubbed.

1535

*NRT/USCG:* ADM Yost, USCG Commandant, arrived at Elmendorf AFB, Anchorage. He returned to Alaska as the President's and Secretary of Transportation's representative to oversee the spill cleanup. He was met and briefed by VADM Robbins and RADM Nelson.

1600

*ADES/USNOAA:* USNOAA continued to issued spill maps based on morning reconnaissances of the ADEC Beaver, the NOAA helicopter, the USCG C-130, and Exxon. USNWS observations were being taken at meteorological stations at Sawmill Bay, Dangerous Island, Dutch Group, and Hinchinbrook Island several times during

the day. The forecast was from 1600 on the day taken to 1800 on the next day, and the outlook was from 1800 on the next day to 1800 on the day after.

XXXX

**ADN:** Alaska Governor Cowper signed legislation today allowing the state to spend up to \$20 million to pay immediate cleanup costs of the EXXON VALDEZ. Ten million from the state general fund was to be deposited into the Oil and Hazardous Substance Release Response Fund at ADEC.

According to the governor's press secretary, the state would divide cleanup costs into two stacks, those accepted by Exxon for reimbursement to the state and those bills contested by the state. Money in ADEC's Response Fund would cover the latter.

XXXX

**USEPA:** A beach transect was conducted on Latouche Island. Its north side was heavily littered with plastic debris. The currents and wind had obviously carried large concentrations of floating matter to the beach before. Consequently, it was not surprising to find the area oiled.

1800

**ADES:** ADHSS appointed an individual to monitor oil impact on the edibility of subsistence foods. The U.S. Food and Drug Administration (USFDA) was assisting. Although the USFDA usually restricted its oversight to commercial products, it was assisting in the oil spill area given the gravity of the problem. The USDOL safety inspector was concerned with violations aboard a VECO service vessel.

Logistics at Chenega Bay Village included finalization of arrangements for equipment and supplies for the Volunteer Resources Office and the pending installation of an emergency warning siren.

ADHSS was sending social workers and other staff to Cordova to help assist with inquiries regarding child care. ADES was coordinating the establishment of a centralized Disaster Assistance Center (DAC) in Cordova. Located in the gymnasium of the Bidarki Recreation Center, the DAC was to operate from 0900-2100 April 15 through April 18. Agencies to be present to provide applications and information assistance were to include ADES, USSBA (economic injury loans), ADCRA (housing loan information, child care licensing, child care assistance), ADCED (fishing loan information, fisheries enhancement), Alaska Legal Services Corp. (legal assistance), American Red Cross (family and community disaster services) and ADHSS. After April 18, ADES was to staff the Cordova Disaster Assistance Office on a regular basis in the Bidarki Center to provide information and referral services.

Similar DACs and offices were to be open in Seward, Homer, Kodiak, and Valdez at later dates while Outreach Programs were to visit Chenega, Tatitlek, and Whittier.

1800

**ADES:** Revised organizational charts were issued for the State EOC and Exxon Valdez Operations. The chart published for the Valdez Oil Spill Assessment Team showed a coordinating group comprised of Slater, ADFG; Brad Hahn, ADEC; Henry Cole, Governor's Office; Bergmann, USDOJ; Maki, Exxon; and John Whitney and Jacqui Mitchell, USNOAA. Committees or subdivisions under this group included Shoreline Surveys, Water Quality, Birds, Marine Mammals, Intertidal Sampling, Fisheries, and Oceanography. Various agencies, as appropriate, fielded teams within the subdivisions.

1800-1915

**USCG POLREP FORTY-ONE:** RADM Nelson returned to Valdez.

1900

**ADES:** Exxon held a boom-deployment class at the Cordova Library.

DAY TWENTY (Wednesday, April 12)

XXXX

**McCLINTOCK:** Since a week after the spill, phone lines of the village of English Bay, located near the southwestern tip of the Kenai Peninsula on Lower Cook Inlet, had been deluged with calls from agencies such as ADEC, ADFG, ADHSS, Chugach Alaska Corporation (the Native Regional profit corporation), The North Pacific Rim (the Native Regional nonprofit human services corporation), and the media. On April 12, VECO, Exxon's contractor, arrived in the village on short notice. At a community meeting, VECO informed everyone they would begin employing local people in the impending oil spill cleanup and would send them cleanup materials.

XXXX

**ADN:** Access of news reporters to information about spill response was severely restricted today. ADEC removed reporters from the roster for a flight to see Exxon beach washing attempts. An ADEC airplane dispatcher said the cutbacks on flights carrying reporters was partially caused by fears of justifying the bill when it was presented to Exxon for reimbursement. Reporters were unable to obtain their own aircraft because most were leased to Exxon or the state. In addition, returning pilots were restricted from providing information about what they saw to reporters.

XXXX

**USEPA:** Exxon was looking at three incinerators at Fort Wainwright in Fairbanks, Alaska.

XXPM

**USCG POLREP FORTY:** Snug Harbor and Bay of Isles appeared to be relatively free of floating oil, however the shorelines were extensively oiled.

Exxon had procured 195 warm-water washing systems for shoreline cleanup.

The USCG Cutter Ironwood was continuing deflection boom mooring in Sawmill Bay.

The Commander of Joint Forces requested six Army medical evacuation aircraft as part of USDOD support equipment.

The State Ferry Aurora moved to Eleanor Island to boom Northwest Bay to keep oil from escaping into the north end of Knight Island Passage. A previously reported sheen near Esther Island appeared to be either diesel or hydraulic and was being investigated.

XXXX

**USNOAA:** Weather for flying was good this day. During overflights oil was observed near the hatchery at Main Bay and out of Kodiak. Light sheen and mousse was observed up to Chugach Islands. Oil could move into Kachemak Bay, Kamishak Bay, or out the Shelikof straits. The amount of oil at the leading edge of the slick had decreased over the last two days.

ADFG aerial surveys observed 18,000 tons of herring with 33 miles of spawn. ADFG established a Cordova office to track herring kills.

Arthur D. Little was revising study plans for water quality and sediment samples and standardizing chemical protocols for reflecting limits and specificity and to determine oil concentrations.

In Seward, where areas had been impacted by the spill, cleanup guidelines and priorities were being addressed. In Homer and Kodiak preparation was underway for potential impacts.

XXXX

**USCG WAK POLREP TEN:** Log boom was deployed at Paul's Bay and Discovery Bay. Additional log boom skirt was being assembled at a hangar at the USCG Kodiak Air Station. Although Kitoi Bay ADFG hatchery was boomed with Exxon, USCG, and City of Kodiak booms, additional ADFG boom now at Kodiak would not be released for use at other areas deemed high priority by the Kodiak MAC Group.

Boom was deployed by the USCG Cutters Planetree and Yocona at the mouth of Resurrection Bay for use with one of the Navy MARCO V skimmers. A second skimmer with support boats and boom was enroute to McArthur Pass, Pye Islands. Six fishing vessels with herring nets from Kodiak rendezvoused with the USCGC Morgenthau. They were to be deployed to the Nuka Bay Area.

Out of Homer, a Navy skimmer was in the water with support boats being readied for movement south to the vicinity of Cape Elizabeth while another was being readied by a crew moving from Kodiak. Boom for that skimmer was enroute from Kodiak to Homer. The only area currently boomed was Tutka Bay fish hatchery. Exxon authorized construction of log boom for deployment in Seldovia Bay.

The USCGC Iris was no longer at Kennedy Entrance to check for oiled vessels. It was directed in the afternoon to search for oil in the area from East Chugach Island to Cape Elizabeth not more than 15 miles offshore. It would continue scouting the east side of Kennedy Entrance for oil, then proceed to Homer to assist with equipment deployment.

2045 *USCG POLREP FORTY-ONE*: The Operations Committee meeting adjourned.

2100 *USCG POLREP FORTY-TWO*: Exxon suspended beach cleanup efforts pending Exxon Pre-Cleanup Assessment Team evaluation of its work plan.

2100-2215 *USCG POLREP FORTY-ONE*: Beach-cleanup work-plan meeting was held.

2110 *USCG WAK POLREP ELEVEN*: A USCG C-130 transported a MARCO V skimmer crew and boom from Kodiak to Homer.

XXXX *USFWS*: USCG had about 750 personnel involved in PWS. AK ARNG had 25 people deployed to PWS and AK ANG had 68 people. Exxon had about 100 people doing beach cleanup on Naked Island using sorbent material to soak up oil pools. An additional 500 people were expected to begin tomorrow. Shoreline cleanup was to focus on sea otter pupping and haulout areas.

The wildlife report on this, the twentieth day of the oil spill, showed 1,242 dead birds and 150 dead otters stored in the freezer van. Of 227 seabirds brought into the center, 87 had died, 140 were at the center, and nine had been released. Of 113 live otters received at the center, 54 had died there and 53 were alive there. Of the six otters sent to Sea World, only one was still alive.

XXXX *EXXON*: A second Exxon-funded bird center was established at Seward.

2400 *EXXON*: The number of Exxon employees, contract personnel, and contract fishermen grew from 176 on March 24 to 1,300 by April 12. Also by April 12, 1,827 tons of equipment had been delivered by air, and 210 vessels, 238,000 feet of containment boom, 41 skimmers, and 26 aircraft were deployed.

Thirty-seven tons of equipment was delivered April 12 and included hot-water pressure washers and oil/water separator tanks. Included in the 210 vessels deployed were 16 major vessels, 182 fishing vessels, seven tugs, and five barges.

Also, by April 12, about 20,000 barrels of oil had been recovered from the water.

DAY TWENTY (*Wednesday, April 12*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

THURSDAY, APRIL 13, 1989  
DAY TWENTY-ONE

## Approximate Alaska Local Time

0631      *USAF: Valdez sunrise.*  
2101      *USAF: Valdez sunset.*

XXXX      *ADN: A Subcommittee of the U.S. Senate Environment and Public Works Committee was to hold a hearing today to look into the EXXON VALDEZ oil spill and arctic pollution problems caused by oil development.*

--      *HORTON: Dave Cline, regional vice-president of the National Audubon Society in Alaska, in testimony before Congress on the spill, described Alyeska's owner companies as having "actively lobbied" in the Alaska legislature to cut the budget of ADEC. ADEC was an agency undermanned and underfunded by the state legislature.*

XXXX      *ADN: Boyd Evison, Alaska regional director for the USDO-I-NPS, told the U.S. House Interior Committee's Subcommittee on National Parks that there was some early opposition by top USDO-I officials to efforts by the NPS in Alaska to call in an ICT to help prepare for the consequences on national parks of the March 24 oil spill. Evison said he essentially ignored that opposition and on his own initiative called in a team that collected data.*

*Evison's testimony, which was cleared in advance by the White House Office of Management and Budget, concentrated heavily on the need for the ICT's early involvement. He said baseline information gathered by the team concerning water quality, intertidal areas, concentrations of birds and marine mammals, and documentation of high-use recreational areas was critical. Such baseline information had not been collected previously, despite requests by Alaska officials for it, because it was never included in DOI's budget.*

*Later, a Sierra Club spokesman told reporters DOI's response to the spill had been negligible. The spokesman said the coordinator of DOI's oil spill response, Deputy Undersecretary Vern Wiggins, was responsible.*

*In a related matter, legislation was introduced in the U.S. House and Senate that would prohibit Exxon from writing off taxes on any of its cleanup costs before PWS and surrounding contaminated areas were fully restored. Exxon had announced this week that it would file for such tax credits against its cleanup costs.*

0700      *USCG-ARRT: A dispersant test was begun in the GOA.*

0745      *USCG POLREP FORTY-TWO: Dispersant test was conducted eight miles south of Gore Point. Six or seven approaches at 50 feet were made. The test was unsuccessful. No effect was evident on the oil mouse and there was only a temporary herding effect to the oil sheen near the mouse.*

0900      *USCG POLREP FORTY-TWO: Exxon Pre-Cleanup Assessment Team was at Naked Island.*

1000      *USCG POLREP FORTY-TWO: ADM Yost arrived Valdez.*

DAY TWENTY-ONE (Thursday, April 13)

1030 *USCG POLREP FORTY-THREE:* ADM Yost held a press conference at the MSO.

1100 *USCG POLREP FORTY-TWO:* ADM Yost received an operations briefing. He was then to have lunch, overfly the spill area, hold a dinner meeting, and attend the evening Operations Committee meeting.

1122 *NRT/USCG:* ADM Yost met with Exxon officials to establish cleanup priorities. Exxon was tasked with submitting a beach cleanup work plan. Exxon temporarily suspended shoreline cleanup pending submission and approval of the plan.

XXAM *USNOAA, EXXON:* Agreement was announced between Exxon and the Natural Resources Trustees (USDOI, USDA, USNOAA, and ADFG) for Exxon to make available \$15 million to begin funding damage assessment. This money was to fund activities the trustees would undertake in association with their assessment of costs for restoration, replacement, or loss of use of natural resources affected by oil released from the EXXON VALDEZ.

XXAM *USCG POLREP FORTY-TWO:* Exxon and USNOAA overflights revealed small patches of sheen and mousse in the areas of Latouche, Erlington, Knight, and Perry Passages; Port Nellie Juan; and to the east coast of Knight Island.

1200 *ADES:* The mayor of Valdez met with State EOC Coordinator Wuerpel, ADCRA Commissioner David Hoffman, and others to discuss the problem of housing an exaggerated transient population. As an example of the situation facing the city, 50 people lured to Valdez by oil-spill related work were living at temporary housing in the local Lutheran Church and the facility was closing at the end of the month. Also discussed was the fact that several VECO workers had been injured and medivaced through Seward to Anchorage. The physician in Seward requested communication capabilities with the VECO EMTs.

1315-1900 *USCG POLREP FORTY-THREE:* Beach cleanup resumed.

XXXX *ADEC:* A lightly oiled gravel cobble beach in a sheltered cove at Naked Island was test washed yesterday and inspected on the ground today. Less than 10 percent of the total beach was oiled. The section that was washed was still lightly oiled. Only a very close inspection revealed a difference between it and the unwashed area. ADEC recommended that the gravel-wash operation be tested on a heavily oiled beach. On lightly oiled beaches the effort was somewhat effective but very labor intensive for the amount of oil recovered.

1330 *NRT/USCG:* ARRT meeting was held.

-- *USCG-ARRT:* Primary attendees at the ARRT teleconference were USDOI-Gates, USDOC-Becker, USDA-Paul, USEPA-Lautenberger, ADEC-Kent, USCG MSO Valdez-CAPT Haines and CDR Conway, USCG MSO Anchorage-LCDR Hutmacher, and USCGD17-CDR Waldron. Other agencies represented were USDA-FS; USDOC-NMFS, NWS, and NOAA; USDOI-FWS and NPS; ADFG; and ADES.

The USFS had been working with Exxon on the issue of beach monitors and Exxon appeared willing to support the monitor program. Results of this morning's dispersant test were anticipated for tomorrow's ARRT meeting. Information on the Navy's "Waste-Lock" product was to be given to the ISCC for evaluation. The two

skimmers located in Homer were moving south towards Cape Elizabeth for deployment. No primary concerns of the ARRT were expressed at this meeting.

XXXX *NRT/USCG:* A USCG monitor and vessels were assigned to each of the five designated cleanup sectors.

1410 *USCG POLREP FORTY-THREE:* The Aurora was relocating to Northwest Bay, Eleanor Island.

1430 *USCG POLREP FORTY-THREE:* ADM Yost overflew the spill area.

1500 *USCG POLREP FORTY-THREE:* Dispersant test was completed.

XXXX *NRT/USCG:* Dispersant tests showed no effect on mousse and little effect on sheen.

-- *CFMC:* A final application of dispersants was conducted in the GOA on April 13. This application was judged a failure in that, while it did remove the sheen from the water, it had no effect on weathered oil or mouse.

1600 *ADEC:* Activities at Sawmill Bay were under the direction of an ADEC outside contractor which had a crew of four on sight. Two seiners, one crab boat, two Chenega Native Corporation skiffs with operators, and 15,000 feet of containment boom were on site. The contractor reported that Sawmill Bay was in good shape at this time. A boom-washing facility was to be reinstituted at dockside with the blessing of the Chenega Village Council. Restrictions were to be placed on the cleaning operation, including adequate containment and use of proper materials. Cleaning of the U.S. Navy skimmers was not to be allowed at this site.

CDFU had an on-site contractor directing the activities of the three CDFU vessels at Main and Eshamy Bays and one vessel at Esther Bay that were tending deployed boom.

The State Ferry Aurora with 25 emergency hires and 12 support and supervisor personnel, a 45-foot chartered passenger boat, two seiners, and 20 working skiffs deployed out of the Aurora, was at Herring Bay for sorbent boom and deployment. The Aurora had an inventory of containment boom, sorbent boom, and oil snares on board. An outboard mechanic and fuel were on board one of the seiners. Additionally, a garbage scow was being used to retrieve and pack absorbent boom. Also at Herring Bay was a motorized tanker barge equipped with a "Super Sucker" vacuum under contract to CDFU, which had arrived last night from Sawmill Bay and a tug and barge which arrived this morning. The barge functioned as a helicopter platform.

At Esther Island; Eshamy, Main, McClure, Herring, and Sawmill Bays; Snug Harbor; Point Helen; and the Whittier boat cleaning station, containment boom was deployed. Also, at Esther Island and Herring and Sawmill Bays, absorbent boom was deployed. Two MARCO Class V skimmers were deployed at Seward, two at Homer, and one at Kodiak.

According to Exxon, 41 mechanical oil-recovery devices, including skimmers, were deployed throughout southwestern PWS and in Seward, Homer, and Kodiak.

XXXX *ADN:* Exxon still had not submitted a long-range cleanup plan.

Oil recovery was at a standstill at Herring Bay despite the presence of the State Ferry Aurora and four spotter helicopters on a barge. Skimmers that had been expected the day before to pick up oil were still not in evidence.

DAY TWENTY-ONE (Thursday, April 13)



XXPM *USCG POLREP FORTY-THREE*: Skimming activities continued at Port Nellie Juan, Main Bay, Herring Bay, and Sawmill Bay. Approximately 5,200 gallons (124 barrels) had been removed from Port Nellie Juan; very little recoverable oil remained. Skimmers from Sawmill Bay were to be relocated to Main Bay and to the east coast of Knight Island to work on mousse.

The safety zone around the EXXON VALDEZ continued.  
311(k) expenditures to date: \$7,554,746.

1700 *USCG POLREP FORTY-THREE*: ADM Yost met with the principle parties involved with the oil spill.

1702 *USEPA*: Samples of ANS crude were taken from Alyeska and sent for laboratory analysis. The information was to be provided to veterinarians who were trying to better understand the oil's toxic effects on otters.

Samples of bird muscle and organ tissues were also to be sent out for laboratory analysis.

XXXX *USEPA*: A USEPA official met with a representative of an incinerator company to discuss the use of a "Shirco" type incinerator which had been proposed to Exxon. The incinerator was said to be able to handle 2,000-3,000 pounds of material per hour.

1800 *ADES*: The State EOC Logistics Section was in the process of securing mobile fueling for the CAP planes at the Valdez airport. Air Operations scheduled 20 missions with an average of four sorties per mission.

The Seward DAC was scheduled for Saturday, April 15, through Tuesday, April 18. Boom deployment and maintenance was continuing by the USCG, the MAC Group, and the ICT. The MAC Group approved Seldovia's construction of temporary log booms. A finger of oil was spotted outside of Seldovia Bay mid-afternoon. A planning session was in the works for a clean fiscal break in the event the ICT was demobilized.

Commissioner Hoffman and two ADCRA staff members visited Chenega and Tatitlek. Community requests included the sampling and monitoring of local subsistence food sources, water sampling, facsimile and copy machines to improve communications, and communications and spill- containment equipment to be permanently stored in the community as part of a future spill contingency plan. The disaster particularly worried elders who went through the 1964 earthquake.

1900 *NRT/USCG*: ADM Yost briefed the Operations Committee on his purpose and function as the President's representative.

XXXX *USNOAA*: During overflights Perry and Esther Islands looked clean. No oil was seen on the flight line until Port Nellie Juan where three skimmers were working. Small amounts of oil were seen at Eshamy and Main Bays. There appeared to be less oil in Chenega Bay, and on Knight and Prince of Wales Islands than previously. Green Island appeared significantly cleaner than previously observed. At Snug Harbor, ribbons and bands of sheen and mousse were seen, with a heavy concentration of oil at Naked Island. The largest concentrations of oil observed were at Eleanor and Naked Islands. Oil was observed as far east as mid-Smith Island.

A cohesive slick was observed at Nuka Bay. Widely scattered tabletop-sized mousse was observed at Chugach Island. There was a high probability of tarballs impacting Barren and Marmot Islands. Oil was reported near Seldovia.

The high-energy shorelines of northern Eleanor Island, Ingot Bay, and Herring Bay were beginning to clean themselves, although the beaches were looking worse. Skimmers were working at Port Nellie Juan, Eleanor Island, and the east side of Knight Island.

Washing with seawater was the preferred manual beach cleaning method.

Science Committee meetings would continue at 2000 each day followed by Shoreline Assessment meetings at 2030. Meetings to cover overall shoreline operations were scheduled for Mondays and Thursdays.

Eight otters were sent to aquariums. Live otters coming in now appeared to be less heavily oiled than otters received earlier. Possible areas for release sites were being looked into.

A trial cleanup was conducted on the eastern tip of Big Smith Island, a major seal-haulout site with some heavily oiled section and cobble beaches. Rock ledges covered with mussels were heavily oiled.

Four portable meteorological stations were deployed and operating.

XXXX ADEC: Exxon reported that some of the inflatable boom around the tanker kept deflating. It was to be replaced with regular boom. No sheen was observed outside the boom.

XXXX USCG WAK POLREP ELEVEN: The USCGC Storis was released from Kodiak and was proceeding to Homer to assist with boom deployment. A MARCO V skimmer in Kodiak was to be loaded on a barge equipped with a crane to provide greater mobility.

Boom, including CIRO boom, was in Homer, and the USCGC Iris was underway for Homer to assist in deployment. The Cutter Morgenthau remained offshore Cape Resurrection coordinating 20 fishing vessels with herring nets breaking up patches of mousse in the vicinity of Nuka Bay/Pye Islands. The herring net operation appeared to be working well. When mousse patches were broken up, sheen rapidly developed.

The USN MARCO V skimmer utilized with the Cutters Planetree and Yocona was working well. However, the USN MARCO V skimmer working with the USCG Pacific Strike Team barrier skimmer in the vicinity of Nuka Bay had skimmed product too thick to pump and a trash pump was being transported in an attempt to fix the problem.

Plans were to move two USN MARCO V skimmers south from Kasitsna Bay to vicinity of Cape Elizabeth and to move operations with the Planetree and Yocona, 84-inch boom, and USN MARCO V skimmer east in Blying Sound to skim oil located by Exxon. Exxon was to locate a private vessel of suitable size to relieve the Planetree so that the Planetree could deploy the remainder of the 84-inch boom in Seward. The Morgenthau was to continue fishing vessel operations until released April 15 for a logistics stop in Kodiak.

The Cutters Storis and Iris were to work with technical reps to deploy 84-inch boom in Homer. The Navy MARCO V at Nuka Bay was to continue operating there while the MARCO on the barge was to be moved to the vicinity of north Afognak Island for a possible skimming operation.

The Seward bird rehabilitation facility was now treating birds.

XXXX USNPS: ICT reports were that oil was evident throughout the Chugach Islands, stretching out in a fine ribbon of sheen around the end of the Kenai Peninsula as far as Port Graham and English Bay. A reconnaissance from Seward confirmed oil encroached into the lower bays of KFNPF.

XXXX *USFWS:* USFWS named a representative to the MAC Group in Seward. The USFS was to charter a six-person boat for state and federal monitoring of Exxon-contracted beach cleanup operations. Exxon-contracted floating hotels were unable to accommodate the monitors due to space limitations.

XXXX *VALDEZ:* On this, the end of the third week of the spill response, there were 388 flight arrivals and departures at Valdez Airport. It was the fifth highest day of airport traffic of the month of April so far. The high to date in April was April 1 with 613 operations and that was the third highest day since the spill. The lowest day for air traffic in April so far was April 4 with 78 operations. Weather was the biggest factor in the number of flights operations at the airport.

XXXX *NRT REPORT:* The oil covered 1,000 square miles and reached 80 to 90 miles from Valdez. It took eight to 10 hours by boat, at 10 knots, to go from one end of the spill to the other. It took 14 hours to tow a skimmer 35 miles across the width of PWS. It was an hour flight by helicopter to reach affected beaches. Staging had to be done on scene from mobile platforms, requiring that equipment be air-dropped or delivered by boat.

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

FRIDAY, APRIL 14, 1989  
DAY TWENTY-TWO

## Approximate Alaska Local Time

0628      *USAF:* Valdez sunrise.  
2104      *USAF:* Valdez sunset.

XXXX      *ADEC:* At the Port of Valdez, daylight transit restrictions continued. Of the waiting tankers, two left port yesterday, three were expected today, and the last three were expected tomorrow.

XXAM      *ADN:* After touring oil-fouled beaches at Herring Bay yesterday, ADM Yost said at the ADEC press conference early this morning that PWS needed massive high-pressure hot-water blasting to clean the oil off beaches and rocks, even if the work killed everything in its path, because organisms would then have a clean environment to recolonize. Oil had become too thick for cold water, ADM Yost said.

Larry Dietrick, ADEC's director of environmental quality, said he believed a consensus was developing for hot-water high-pressure flushing.

ADM Yost said he would listen to the scientists who opposed the hot-water technique, but said the final decision would be his.

ADM Yost, who had raised the USCG's profile considerably since arriving, also said only seven to nine of Exxon's skimmers were working effectively on the thick weathered oil despite Exxon's fleet of 40 skimmers. He also said that he had given Exxon until tomorrow to finish its plan for dealing with the oil spill but wouldn't say what he would do if Exxon didn't meet his deadline.

The press conference was interrupted briefly by a call to ADM Yost from the President.

0900      *USCG POLREP FORTY-FIVE:* Exxon cleanup estimates:

Discharged -	240 K BBLS	Recovered -	2255 K BBLS
Evaporated -	78 K BBLS	" -	1313 K BBLS
Dispersed -	11 K BBLS	" -	120 K BBLS
In the Sound -	42 K BBLS	" -	784 K BBLS
In the Gulf -	42 K BBLS	" -	1260 K BBLS
On Beaches -	45 K BBLS	" -	1010 K BBLS

XXXX      *ADN:* In response to calls for action from the community of Seldovia which had been working on its own oil spill response without financial assistance from Exxon, VECO, Exxon's contractor, was in Seldovia this morning signing up residents as employees. Seldovia's boom brigade hoped to have a half-mile of floating barricade in place by the end of the day.

XXXX      *ADEC:* To date, ADEC shoreline surveys had catalogued over 50 shoreline areas. Beach cleanup observers noted improvement to a cobble beach area after a medium-pressure wash.

DAY TWENTY-TWO (Friday, April 14)

XXXX *ADFG:* In regard to shorelines, Commissioner Kelso stated, "We've got this window between now and the end of the summer, so if we miss that window, we'll have to stop."

1115 *NRT/USCG:* ADM Yost met with Governor Cowper and ADEC Commissioner Kelso to discuss cleanup progress and strategies. ADM Yost was also briefed by LT GEN McInerny on results of the USDOD Assessment Team study.

XXXX *ADN:* The Bush administration conceded that the PWS oil spill had ruined chances of Congress approving legislation to drill in the Arctic National Wildlife Refuge of Alaska any time soon.

1300 *NRT/USCG:* ARRT meeting was held.

-- *USCG-ARRT:* Primary attendees at the ARRT teleconference were USEPA-Lautenberger, USDOJ-Gates, USDOC-Becker, USDA-Paul, ADEC-Kent, USCG MSO Valdez-CAPT Haines and CDR Conway, USCG MSO Anchorage-CAPT Roussel, USCGD17-CDR Waldron and CDR Rome. Other agencies represented were USDA-FS; USDOC-NMFS, NWS, and NOAA; USDOJ-NPS.

*CAPT Roussel* reported on the activities of some of the oil recovery equipment. At this time, the Canadian GT-185s and the MARCO skimmers were having the most success at recovering oil. All skimming systems were going to need regular maintenance to prevent breakdowns in the future.

The ARRT's concerns about Exxon's shoreline cleanup were to be addressed by the ISCC. This morning the State of Alaska approved 56 beaches for cleaning operations. No major concerns were expressed at the meeting.

1314 *NRT/USCG:* ADM Yost talked by telephone with President Bush. ADM Yost discussed the effectiveness of hot-water/steam cleaning of shoreline and provided a status report.

1500 *NRT/USCG:* LT GEN McInerny, ADM Yost, and VADM Robbins met. USDOD resources were discussed and additional resources secured, including USDOD ACOE Dredge Essayons and USN ship USS Juneau.

XXXX *USEPA:* The water-quality monitoring plan drafted by the USEPA Region 10 team was being revised to include some additional recommendations from the state. EPA and ADEC leased a purse seiner from which to conduct the water sampling effort.

1700 *NRT/USCG:* ADM Yost met with top Exxon officials. He presented them with a list of 50 beaches requiring cleanup. ADM Yost put pressure on Exxon to provide additional personnel within 10 days.

1715 *USCG WAK POLREP TWELVE:* The Anchorage MSO notified USDOJ of a large sheen and mousse patch just west of Cape Douglas.

XXXX *ADES:* An ADES-ADCRA team visited Tatitlek. Though not directly impacted by visible signs of oil on the beaches or in nearby water, residents were concerned about the fact that common forms of marine life such as mussels and starfish were dying and the absence of sea lions and seals, normally abundant at this time of year. An assessment by ADFG was requested. Exxon's contractor hired locals there for shoreline cleanup and put them on a paid standby basis.

1800 *ADES*: Air operations for the state were transferred from ADEC to the State EOC. All requests for aircraft were to be submitted by 1800 on the day before the aircraft was desired. ADCRA had representatives on duty in Seward, Valdez, Kodiak, and Cordova, and planned to add one to in Seward. The agency said it would visit Tatitlek and Chenega weekly. It also made a commitment to assist the City of Valdez planning staff with its overload of activity resulting from the spill.

XXXX *ADEC*: ADEC turned over all air logistics support functions to ADES. All other logistics functions were to be turned over to ADES in the coming week.

1900 *USCG POLREP FORTY-FIVE*: ADM Yost attended the Operations Steering Committee meeting.

1930 *USCG POLREP FORTY-FIVE*: ADM Yost attended the ISCC meeting, then returned to the conclusions of the Operations Steering Committee meeting.

2000 *NRT/USCG*: ADM Yost met with USNOAA's On-Scene SSC and the Operations Committee. The need to protect Seward, Homer, and Kodiak was discussed, as was the forthcoming Exxon shoreline cleanup plan.

-- *USNOAA*: At the evening Science Committee meeting, ADM Yost stated that one of his major goals as (Overall) FOSC was to achieve effective beach cleanup. Beach cleanup would be conducted using priorities based on quantity of oil, environmental sensitivity, and logistics.

-- *USEPA*: The Operations Committee meeting was cancelled. ADM Yost attended the Science Committee meeting. The Admiral said of the response, "It's war."

2100 *NRT/USCG*: The ISCC approved use of wash-vacuum oil-cleaning system "Vikovak" on eastern shore of Smith Island. The ISCC also approved test cleaning using hot/cold/high-pressure water flushing with "Vikovak" applications on northern portion of Smith Island. Instructions were given to avoid all living species, backshore and upper intertidal areas, and use of high-pressure water or steam where invertebrates and seaweed existed.

-- *USCG*: The ISCC approved "Vikovak" (wash/vacuum) cleaning on the eastern shore of Smith Island and test cleaning using combinations of hot and cold, low- and high-pressure water flushing in conjunction with the "Vikovak" cleaning on the northern portion of Smith Island. The test was to determine which combinations of water temperature and pressure would be most effective in cleaning the beaches with the least possible damage to the ecosystem. Additional approval for shoreline cleanup was given for Eleanor Island.

XXPM *USCG POLREP FORTY-FIVE*: ADEC submitted a list of over 50 oiled shore line areas to the ISCC for development of cleanup strategies and prioritizing.  
The Operations Steering Committee was formulating containment and cleanup strategies for the Kenai Peninsula area.  
Exxon stated its long-term cleanup work plan would be completed on April 15.

XXXX *EXXON*: Exxon presented its initial shoreline cleanup plan on April 14.  
*[AOSC NOTE: The date of April 14 for provision of Exxon's shoreline cleanup plan was in Exxon's narrative of its shoreline cleanup response contained in its chronology provided to the AOSC. It appears*

DAY TWENTY-TWO (Friday, April 14)

*likely that this was a wordprocessing error since all other accounts we have place this event on April 15.]*

XXXX *USNOAA:* USNOAA officials met with Dan Paul, Exxon Shipping Company's human resources manager, to discuss strategies for the Exxon cleanup plan which was to be submitted to Admiral Yost the next day.

XXXX *ADN:* Despite ADM Yost's pronouncement on beach cleaning methodology this morning, by evening USNOAA experts had talked to ADM Yost and scientists were saying that a variety of methods would be used as in their original plan. And state officials said they, not ADM Yost, would have final authority over what happened on the beaches.

XXXX *USNPS:* The ICT reported heavy oil impact along the outer peninsulas of the Kenai Fjords coastline, Pye Islands, Nuka Island, and Aialik Cape. Oil was also reported three miles east of Cape Douglas, the easternmost point of Katmai National Park and Preserve. Fingers of sheen extended up to Caines Head (about four miles from the City of Seward) along the west shore of Resurrection Bay and surrounded Fox, Hive, and Rugged Islands.

XXPM *USCG POLREP FORTY-FIVE:* The USCGC Sweetbrier replaced the Cutter Sedge. Boom and skimmer activities continued in the Naked, Eleanor, and Knight Island areas, Point Helen, and Port Nellie Juan, while beach cleanup continued on Naked Island.

XXXX *ADN:* Booms were placed across the mouth of the Seldovia River today.

XXXX *USNOAA:* An overflight to check the western and northern extent of floating oil observed a small amount of silver streamers in Perry Passage, about one mile north of Port Nellie Juan and just to the east of Lone Island. The eastern extent of the oil was approximately Green Island. When Sawmill Bay was checked no oil was inside. The largest concentration of floating oil was observed between Eleanor and Ingot Islands, on both east and west sides. The northwest tip of Montague Island was oiled but no floating oil was observed.

Additional impacts in Port Nellie Juan were expected by late afternoon on April 15. Oil in the GOA was expected to continue to break up and spread into smaller and smaller patches, eventually becoming tarballs. Oil entering through Stevenson Entrance was expected to move down the Shelikof Straits.

Most of the birds being brought into the center were diving ducks, diving seabirds, and loons. High otter impacts continued. Veterinary experts in fields including pulmonary medicine, toxicology, and anesthesiology advised the otter center.

XXXX *ADEC:* Disposal resources were being evaluated, primarily waste oil incinerators being procured by Exxon and one located at Fort Wainwright. ADEC and Exxon reached agreement for Exxon to take over management of local spill cleanup equipment at Seward.

The USCG transported additional booms to sensitive areas near Afognak Island and Kodiak Island.

As the oil moved into the GOA, the ocean currents were carrying it along the southern shore of the Kenai Peninsula. Areas being oiled included Resurrection Bay, the Chiswell Islands, Nuka Bay, and the Barren Islands. Oil had slipped into the

waters between the rocky fingers of the KFNP. Initial impacts on wildlife in these areas was expected to occur in the next several days and weeks.

Herring had spawned at several locations in the western sound. On Naked Island, heavy spawning activity occurred on the un-oiled beaches at the head of Bass Harbor. Stellar sea lions from throughout the GOA were in PWS because of the herring.

XXXX

*ADES:* At Cordova, incoming boats were asked to have their hulls inspected by the USCG for oil and cleaned at an upland boat washing station before entering the harbor. The City of Cordova began publishing a daily oil spill fact sheet. The children of Cordova were making paper hearts as a symbol that the community was pulling together and they appreciated each other and their beloved Prince William Sound. The project was being organized by North Pacific Rim, the Native regional non-profit Corporation for that area.

PWSAC was awaiting the arrival of Norwegian ocean boom in Cordova on an Alaska Airlines flight. Once here, the boom was to be trucked into Cordova and then tendered to Sawmill Bay where a Norwegian manufacturer's representative was to supervise installation. PWSAC ordered the heavy-duty boom from Europe because it was unable to obtain enough through Valdez to completely boom off Sawmill Bay. The USCGC Ironwood was to help deploy the boom and the six 3,000 pound anchors that were to hold it.

XXXX

*USCG WAK POLREP TWELVE:* Oil recovery efforts utilizing the Coast Guard cutters, booms, and various skimmers continued in FOSC WAK jurisdiction. Efforts at Nuka Bay were hampered by lack of dedicated air support to locate oil. Exxon logistics was requested to provide two dedicated helicopters based in Homer to spot oil. The FOSC WAK was to seek USDOD equipment if Exxon could not provide the helicopters.

Exxon was also requested to find a vessel of suitable size to replace the USCGC Iris for 84-inch boom deployment and skimming operations, to find at least six additional fishing vessels to operate with herring nets to break up mousse patches in the vicinity of Cape Elizabeth/Kennedy Entrance near Kodiak, to break up small patches of mousse in the vicinity of Shuyak Island, and to conduct overflight to confirm oil offshore Cape Chiniak.

A contract vessel was to replace the USCGC Storis in handling 84-inch boom so the Storis could coordinate the fishing vessel and skimmer operations in Nuka Bay. The remainder of the 84-inch boom was to stay in Seward for possible use with the Soviet skimmer, now due Prince William Sound April 20.

*[AOSC NOTE: Due to availability and time constraints in completing this chronology, WAK POLREPS beyond POLREP TWELVE were not examined, with the exception of some at the end of April.]*

XXPM

USCG POLREP FORTY-SIX: 311(k) expenditures to date: \$7,778,394.



DAY TWENTY-TWO (*Friday, April 14*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

SATURDAY, APRIL 15, 1989  
DAY TWENTY-THREE

## Approximate Alaska Local Time

0625      *USAF: Valdez sunrise.*  
2107      *USAF: Valdez sunset.*

XXXX      *NRT/USCG: ADM Yost, VADM Robbins, and USNOAA representative conducted overflight of Northwest Passage to observe skimming.*  
            *Concentrated skimming operations continued in many areas. Ten skimmers and eight CG cutters were operating on scene.*  
            *RADM Nelson departed Valdez to resume his duties as Commander of USCGD17, Juneau.*

--          *USCG: ADM Yost and VADM Robbins and NOAA advisor Michel visited the area around Northwest Pass to observe manual beach cleaning and later flew to the USCGC Rush, underway in the vicinity of Naked Island, to observe operation of U.S. Navy-owned MARCO Class V skimmers.*

XXXX      *USCG POLREP FORTY-SIX: ADM Yost's entourage in Valdez included his executive assistant and a public affairs and protocol officer. With VADM Robbins were his special assistant, his chief of operations, and a communications officer.*

XXXX      *ADFG: ADFG Division of Commercial Fisheries announced that the herring sac roe fisheries in the Outer and Eastern Districts of the Lower Cook Inlet, scheduled to open on April 15, 1989, would not open for the 1989 season because of oil.*  
            *(During the duration of the herring sac roe fishing season, approximately 34 of the 56 management units in the Kodiak area were closed because of oil impacts.)*

1400      *NRT/USCG: "Hydrovac" pumping system was transferred to Zone Two to speed offloading of skimmers there. "Hydrovac" systems were considered the only effective pumping system for the viscous, debris-laden oil that was difficult to transfer through integrated skimmer pumping systems.*

XXXX      *USCG: Cleanup efforts continued at Point Helen, Sawmill Bay, Eshamy Bay, Herring Bay, Northwest Bay, and Snug Harbor. Ten operational skimmers were involved and one skimmer was in standby.*

1400      *ADES: Chenega Village received its copier, "FAX" machine, and related supplies as requested from ADEC. Homer had two "FAX" machines and didn't need a third. Send and receive capabilities were being arranged for Kodiak, Seward, and Cordova. Major documents processed by the State EOC in Valdez were being transferred to the communities by "FAX."*

1600      *NRT/USCG: VADM Robbins became FOSC.*

1600      *ADES: CAP members were now able to refuel their own aircraft from a Valdez Fuel Company aviation gas truck parked at CAP's operating location. ERA Aviation was*

DAY TWENTY-THREE (Saturday, April 15)

taking steps to increase its aircraft servicing capability so that AK ANG assets could be withdrawn without hampering the total air effort.

USDOC-NWS observations were being taken at Sawmill Bay, Dangerous Island, Dutch Group, Hinchinbrook Island, Cape Resurrection, Pye Islands, East Chugach Island, Marmot Island, USCG Cutter Rush, Seal Island, and Sitkinak Island several times daily.

1700 *NRT/USCG:* ADM Yost met with representatives of Exxon, ADEC, and fishermen. Exxon presented its shoreline cleanup execution plan.

-- *USCG:* ADM Yost met with top Exxon, ADEC, and fishermen representatives and was presented with Exxon's shoreline cleanup execution plan.

-- *ADN:* Exxon submitted its cleanup plan to ADM Yost who said he liked it.

1800 *ADES:* Herring fisheries were closed for the areas of Shuyak, Perenos, Seal, and Tonki Bays.

1900 *NRT/USCG:* FOSC VADM Robbins approved a shoreline cleanup work order for Eleanor Island.

1900 *NRT/USCG:* ADM Yost attended an Operations Committee briefing to discuss the day's developments and cleanup actions to be taken outside PWS.

-- *USEPA:* ADM Yost told the Operations meeting that he wanted more monitors and two survey flights daily. The meeting also discussed the arrival of the Soviet skimmer, communication relations, salvage of the EXXON VALDEZ, the dead animal count, and air traffic issues.

2030 *USEPA:* At the ISCC meeting, the topic of concern was the sinking of oil after it is washed from the beach and the sinking of oil/sediment loading in general. The USEPA Region 10 laboratory had taken fingerprints of both mousse and ANS crude oil samples for the U.S. criminal investigation.

-- *USNOAA:* A scientist on a USNOAA sampling cruise, Jim Payne, said he did not observe any evidence of sinking oil in PWS. Payne said he could not detect suspended particulate matter-oil mixtures at any of the locations where he took samples, including Naked and Eleanor Islands. In response to concern about sinking oil, Payne emphasized that there were only two things that could cause oil to sink -- the interaction of oil with suspended particulate matter and sediment, and oil on a beach washing off the beach back into the water.

Flights over PWS showed no major changes in oil location. However, a substantial amount of oil and mousse accumulated southwest of Naked Island and skimmers worked at collecting that oil.

-- *AOSC NOTE:* According to McClintock, despite accounts from Exxon and USNOAA that oil was not sinking in the water, members from communities on the Homer MAC Group reported that workers in their area noticed oil was sinking in the water. They considered USNOAA a collaborator with Exxon to impart false information.

XXXX *McCLINTOCK*: Tim Robertson, director of operations for VECO, Exxon's contractor, took over the operations of Seldovia's ERC and staffed it with office personnel hired from the community.

XXXX *USCG*: Nine Coast Guard cutters were in the spill area providing services that included air traffic control, coordinating a fishing-vessel herring-seine project to break up oil in Nuka Bay, continuing the Sawmill Bay boom project, working with skimmer off the Kenai Peninsula, and working with skimmer in Resurrection Bay. A tenth cutter, the *Morgenthau*, was enroute to Nuka Bay from Kodiak to relieve the *Storis* which was returning to Cook Inlet.

XXXX *ADEC*: Sawmill Bay continued to hold in very good shape. The tank barge with "Super Sucker" was relocated to Point Helen area and points north yesterday. The core of ADEC-managed field operations shifted from Herring Bay at Knight Island to Northwest Bay. The State Ferry *Aurora*, the garbage scow, the tank barge with "Super Sucker," and the tug boat with tanker barge were relocated to Northwest Bay with the consent of Exxon, USCG, and ADEC. Two seiners previously working at Sawmill Bay were relocated to the Herring Bay/Northwest Bay area. The two seiners and charter boat that were working Herring Bay were still in the area and 16 working skiffs were deployed out of the *Aurora*.

Recovery operations in the last two days at Northwest Bay were very effective, over 25,000 gallons of crude oil per day. There were reports of fishermen's ingenuity in adapting net handling equipment to the maneuvering and wringing out of sorbent boom so that it could be reused.

ADEC established two contact points for volunteers: Alaska Center for the Environment and PWSCA. These organizations were to provide lists of volunteers with their qualifications and advice on where and how the volunteers should be used.

XXXX *ADES*: Overflights indicated the heaviest concentration of oil in PWS was just south of Naked Island. The protected hatcheries remained free of oil. Outside PWS in the GOA, the area between Montague Island and the Chiswell Islands was largely clean. Patches of oil appeared heaviest between the Chiswells and Gore Point. The oil consisted of sheen with some evidence of tarballs. Lower Cook Inlet and Kachemak Bay were free of oil, but streamers with small tarballs were spotted south of the Chugach Islands. The wind was blowing from the southwest.

XXPM *USCG POLREP FORTY-SIX*: Aircraft usage in the PWS area was coordinated by the FOSC through MSO Valdez Air Operations. Each agency/corporation (USCG/JTF, ADES, Exxon) maintained scheduling authority for its aircraft, IAW, USCG, and FAA airspace rules. Interagency flights were flown whenever possible to maximize resource use and reduce air traffic. The Joint Air Operations Center at the Valdez airport was scheduled to be completed on April 18.

The FOSC requested LT GEN McInerney, commander Alaska Oil Spill JTF, provide USDOD personnel and equipment to replace the AK NG component for air operations support.

A Joint Communications Center (JCC), to be manned by Alaska State troopers and USCG and Exxon merchant-vessel radio operators, was being established to connect the FOSC to the cleanup resources and USCG monitoring personnel in the field. Some remote communications sites were not operating properly; adverse weather had caused delays, and the Cape Hinchinbrook site was operating only marginally.

There continued to be problems with pumping recovered oil from skimmers and temporary storage tanks to storage barges.

XXXX *USNPS*: The Homer branch of the ICT was to have begun demobilizing with operations turned over to Exxon and its contractor, VECO, and the USCG.

XXXX *USCG POLREP FORTY-SIX*: 311(k) expenditures to date: \$8,011,590.

XXXX *USCG POLREP FORTY-EIGHT*: Exxon's cleanup and recovery estimate was 2,420 barrels.

DAY TWENTY-THREE (*Saturday, April 15*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

SUNDAY, APRIL 16, 1989  
DAY TWENTY-FOUR

## Approximate Alaska Local Time

0622      *USAF:* Valdez sunrise.

2109      *USAF:* Valdez sunset.

0800      *USCG POLREP FORTY-SEVEN and USNOAA:* FOSC VADM Robbins met with the Natural Resources Trustees concerning shoreline cleanup protocol. He assured the resource groups that environmental concerns would be included in any decisions made.

0900      *ADES:* The MAC Group met in Seward at the KFNP Visitor Conference Center. Agencies in attendance with the USDO-I-NPS, the meeting chair, included Kenai Peninsula Borough, City of Seward, Exxon, ADES, ADEC, USFWS, and USNMFS. The difficulty in coordinating cleanup efforts was discussed. Currently (with respect to the WAK area of the spill), the USCG coordinated from the Anchorage MSO and Exxon from Valdez. This was said to be creating problems logistically with regard to communications, priority setting, and implementing directions. The Exxon representative, Cal Sikstrom, stated that once an Incident Commander was designated for the Exxon Seward ICT the problem should be alleviated.

Currently, two USCG cutters with a funnel boom were working in the Resurrection Bay area. Because of the oil's thick consistency, pump problems had developed and new pumps were awaited that day. The plan was to work Resurrection Bay, then head south. Ten vessels were to be outfitted with sorbent material and deployed to attempt to corral oil in these areas. A discussion occurred regarding the difficulty in skimming open waters. It was also noted that the method of utilizing fishing vessels and nets to break up the oil was meeting with little success.

0930      *NRT/USCG:* ADM Yost, VADM Robbins, and several federal, state, corporate, and press representatives attended a shoreline washing experiment and demonstration conducted by Exxon on southwest Eleanor Island.

Exxon submitted a shoreline cleanup execution plan to the FOSC and staff for review.

PWS overflight showed significant change in the path of the oil caused by changes in wind direction. Large concentration of mousse and sheen previously seen near Eleanor and Ingot Islands was now being driven southwest towards Falls and Main Bays and Lone, Perry, and Culross Islands. Significant shoreline impact was anticipated there. Projections indicated oil would remain in that vicinity and would not migrate into Wells Passage or Port Nellie Juan.

Overflight conducted in the area of Gore Point showed shoreline impacts. Remaining oil in the GOA between Cape Junken and the Chugach Islands could be driven northward and reach shoreline in that area due to predominantly southeast winds.

Cleanup operations were temporarily stopped due to reports of exposures to harmful vapors. Air quality monitoring showed exposure limits to be within safety guidelines.

DAY TWENTY-FOUR (Sunday, April 16)

XXAM      *ADEC:* An Exxon industrial hygienist completed preliminary screening tests on the Aurora in an effort to determine whether fumes associated with cleanup activities could be responsible for illness reported by a few crew members. The screening methods showed negative for significant levels of harmful vapors, including benzene and hydrogen sulfide. Crews were allowed to return to work. The hygienist was to remain in the area throughout the day and collect real-time data to verify the preliminary results.

XXXX      *USEPA:* At the ISCC meeting, ADEC provided comments on the Exxon plan: there was no plan for free oil, no further action plan, and no organizational plan. Also, Exxon needed to define "re-oil of beaches" and complete the "identified areas" section. Concerning the April 7 test, Exxon needed to provide more detail on the cold-water flushing.

1230      *USCG POLREP FORTY-EIGHT:* Shoreline cleanup test and demonstration began.

1330      *USCG POLREP FORTY-EIGHT and USNOAA:* USCG Commandant ADM Yost and the FOSC observed a beach cleanup test. Exxon demonstrated three major cleanup techniques: low-pressure flush with fire-hose rinse (mixed sand and gravel); "Vikovac" small suction devices (pooled oil); and high-pressure/hot-water steam (rocky headlands). All of these methods were somewhat effective -- in the range of 50-80 percent -- with visible removal of oil.

XXXX      *ADEC:* ADEC attended a shoreline cleaning methods demonstration on Eleanor Island. The demonstration was switched from Smith Island for logistics and safety concerns.

--      *USEPA:* Beach washing techniques were demonstrated on Eleanor Island, despite the bad weather, to observers from agencies including USEPA, USNOAA, USNMFS, USCG, USN, ADEC, and ADFG.

1400      *USCG POLREP FORTY-SEVEN:* VADM Robbins discussed transportation and accommodations issues for the USCG on-scene monitors with USFS and ADEC representatives.

1500      *USCG POLREP FORTY-EIGHT:* The Planning Committee met.

1800      *NRT/USCG:* ADM Yost met with the Operations Committee. Alternate methods of beach cleanup demonstrated earlier were discussed and evaluated. ADM Yost expressed concern over the high number of skimmers he observed that were not operating during his earlier overflight.

1900      *USCG POLREP FORTY-EIGHT:* The Operations and Scientific Committees met.

2030      *USCG POLREP FORTY-EIGHT:* The Shoreline Protection Committee met.

XXXX      *USEPA:* The water-quality team selected five sampling sites: two heavily oiled beaches, one moderately oiled, one lightly oiled, and one free of oil. All the sites selected were considered likely to support shellfish populations. Water, sediment, and organism samples were to be taken. Beginning Tuesday, the team was scheduled to be out for seven days.

DAY TWENTY-FOUR (Sunday, April 16)

XXXX *USNPS:* The Seward ICT was demobilized with operations turned over to Exxon and its contractor, VECO, and the USCG. Exxon's operation was to be modeled on the USNPS ICT.

The USNPS response to Katmai National Park was being run through a Class II ICT out of Kodiak that was called in by the USFWS. The USCG, rather than Exxon, continued to have overall control of that team.

*[AOSC NOTE: Seward Incident Commander Liebersbach said he stayed in Seward to work with the MAC Group until April 24.]*

XXXX *ADEC:* Through on-site representation, ADEC continued to participate with, and help in coordination of, local oil spill response planning in Homer, Kodiak, and Seward. Reports on the trajectory of the spill were continually being forwarded to these communities through the on-site ADEC representatives.

XXXX *ADES:* Seward EOC Report: The oil slick continued to move in a Southwest direction. The USCG continued to skim from Resurrection Bay and dispatched two additional skimmers to assist in the area. Exxon and VECO were now in control of deployment and boom monitoring. Exxon was transitioning costs for the EOC building and administrative costs. ADEC continued to monitor environmental issues with ADES in support.

XXXX *USNPS:* A USNPS reconnaissance from Friday, April 14, to Sunday, April 16, covered most of the Kenai Fjords coast and found numerous oiled coastlines and dead birds.

Oil continued to hit the shore of KFNJ in smaller sheets of a few hundred square feet.

XXXX *ADES:* A network of crisis counseling services had been established throughout the oil spill region.

XXXX *McCLINTOCK:* Booms, cleanup bags, absorbent materials, rain gear, radios, VHF radios, and hats from VECO arrived English Bay on a barge from Homer. A "FAX" machine sent by the Kenai Peninsula Borough also arrived. The material arrived several days after oil was first spotted outside the community and was not in Ksufficient quantity to meet the existing needs. Additionally, no one in the community was trained in how to assemble the booms. Despite this, the men worked through the night to put the booms together.

XXPM *USCG POLREP FORTY-EIGHT:* Skimming operations for April 16 were reported to be less successful because of downtime for skimmer repairs, crew fatigue, weather, and inability to pump oil from skimmers because of high viscosity, debris, and timely barge availability. ADM Yost expressed concern that Exxon might not have the capability to sustain the level of productivity that he desired.

Salvagers working on the EXXON VALDEZ commenced cutting and removal of "hangers" (hanging steel pieces) from the bottoms of tanks No. 2C, 3C, and 4C. Sorbents were picking up 99 percent of the sheen with the boom.

USCGD17 upgraded message processing capabilities at the MSO in Valdez.

Exxon command vessels were deployed in Northwest Bay, West Knight Island, and Northwest Bay. A USCG monitor was assigned to each vessel.

Skimming equipment deployed included two "Slick Lickers" and one MARCO Class V in Herring Bay; two MARCO Class XIs and one MARCO Class V in Valdez; two "Super Suckers," two Vikoma skimmers, two Framo skimmers, one ODI skimmer,

DAY TWENTY-FOUR (Sunday, April 16)



four MARCO Class Vs, a vessel with rope mops, and one barged "Cyclone Vac" at Northwest Bay; two GT-185s, three MARCO Class Vs, and one barged "Cyclone Vac" at Squire Island; a Walosep-2 at Ingot Island/Naked Island; a Walosep-4 at Naked Island; a "Super Sucker" at Squire Harbor; three paddle skimmers at Outside Bay; two MARCO Class Vs at Sawmill Bay; two MARCO Class Vs at Eleanor Island; two MARCO Class Vs at Seward; two MARCO Class Vs at Homer; one Marco Class V at Snug Harbor; one MARCO Class V at Kodiak.

Dispersants were no longer considered a response option based on test results and recommendations of resource agencies.

XXPM

**USCG POLREP FORTY-SEVEN:** Four U.S. Navy personnel plus 90 Navy contract personnel were engaged in oil skimming operations under Exxon's direction and USCG oversight. Most of the deployed skimming systems consisted of one MARCO Class V skimmer, one work boat, and one mother boat (usually a contracted fishing boat to berth and mess crews). The work boat and the mother boat normally towed the skimmer in a V-boom configuration during oil skimming operations.

The USCG still estimated the spill at approximately 250,000 barrels.

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**NAVSEA(SUPSALV):** Several USN officers and USN Civil Service personnel were responsible for directing NAVSEA SUPSALV on-scene operations in support of the USCG FOSC in Valdez. Contractor personnel were involved in direct operational support in the assembly, operation, and maintenance of the skimming systems and support equipment. Other contractor personnel provided planning, logistics, accounting, and administrative support in Navy command vans/trailers along with the USN representatives at the USCG headquarters in Valdez.

Contract equipment operators and support personnel were supplied by Global Associates/Phillips Cartner & Co., Inc., of Alexandria, Va., and Marine Pollution Control of Detroit, Mich. Personnel working for these companies came from various parts of the continental U.S. including the ESSM bases in Stockton, Calif., and Williamsburg, Va., and from Detroit, Mich., and the United Kingdom.

Most personnel arrived in Valdez via commercial aircraft from their home bases. Some traveled via military aircraft with the response equipment, and were then flown to Valdez by commercial carrier or military aircraft or traveled by road with the trucks and equipment going from Elmendorf AFB to Valdez.

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**USCG:** The Alaska Oil Spill JTF announced that two San Diego-based USN ships would leave on Tuesday, April 18, for Valdez to support JTF cleanup operations. The ships were the "Austin" Class amphibious transport dock USS Juneau, a 569-foot long ship, and the "Modified Whidbey Island" Class dock landing ship USS Fort McHenry, a 609-foot long vessel. No Navy women were attached to either ship.

The ships were to provide basic hotel services including berthing, food service, transportation, medical, communications, laundry, etc., without requiring any facilities ashore. The role of ship crew members in cleanup efforts was not yet known.

The Navy ships were to bring in the following USDOD equipment: two US Marine Corps CH-46 Seaknight helicopters from USMC Air Station Tustin, Calif., two mechanized landing craft with a crew complement of five and capable of carrying 60 tons, six mechanized landing craft capable of carrying 34 tons or 80 troops, and five "Dracon" bladders to store recovered crude oil. The helicopters and landing craft were to carry cleanup crews and equipment to and from shores and other work areas. Cost of the Navy support was not yet determined.

RADM Edward B. Baker, Jr., USN, commander of Navy Amphibious Group Three, San Diego, was commanding the Navy Task Force. Baker was to report to LT

DAY TWENTY-FOUR (Sunday, April 16)

GEN McNerny, commander of the Alaska Oil Spill JTF. The Secretary of the Army was the USDOD executive agent in order to secure these DOD resources.

Other military resources, either present or enroute, included the ACOE dredges Yaquina and Essayons; three UH-60 Blackhawk helicopters, to operate out of Fort Richardson, Anchorage, to provide extra Medivac capability; a 25,000 pound K-loader, sent to Kodiak, to off-load C-5s and C-141s; nine lightweight decontamination units located in Alaska which were being provided to assist with beach cleanup (150 additional units were being located throughout DOD for possible tasking); three disaster preparedness technicians from Elmendorf AFB sent to Valdez to train Exxon personnel on using the decontamination equipment; two Russian linguists to handle communications between the USC and the Soviet skimmer Vaydaghubsky; and NAVSEA SUPSALV assets including 22 skimmers, 10 tow boats, mooring systems, and various vans, in addition to 94 Navy contractor personnel committed.

To April 15, the Military Assistance Command had flown 22 missions (15 C-5, three C-141, and four C-130) bringing in 1,010 tons of cargo.

XXXX

**USNOAA:** Encouragement was felt at the otter recovery centers because no otters had died in a 24-hour period. The rehabilitation process was slow because cleaning the otters removed all the natural oils from the otters' fur. Commercial hair-care products for humans were applied to the otters to help replenish natural oils. The otters appeared to be recovering.

In the WAK area of the spill, preparations were underway for use of the CIRO pump to offload skimmers in Seward. MARCO Class V skimmers were standing by in Port Graham for a break in the weather while another skimmer remained in Kitoi Bay, Kodiak Island.

2300

**ADEC:** The two seiners from Herring/Northwest Bay were dispatched to Eshamy Bay with boom-repair people and sorbents. The vessels repaired the boom and collected what oil was necessary. They then returned to the Herring/Northwest Bay area. Large vessels and skimmers were no longer to be washed at Sawmill Bay; washing was limited to boom washing and skiff washing.

DAY TWENTY-FOUR (*Sunday, April 16*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

MONDAY, APRIL 17, 1989  
DAY TWENTY-FIVE

## Approximate Alaska Local Time

0619      *USAF:* Valdez sunrise.

2112      *USAF:* Valdez sunset.

XXXX      *NRT/USCG:* Skimmer operations were redirected in order to concentrate on near-shore areas to recover larger amounts of accumulated oil more effectively.

Salvage of the EXXON VALDEZ continued. Box patches were installed from frame one to fore and aft bulkheads. All "hangers" were removed from tanks Nos. 1C, 2C, and 3C. Divers conducted a survey of tank No. 1S.

The JCC network was established to connect primary command nodes for overall operations coordination.

XXXX      *ADEC:* Oil was reported in Eshamy Bay late last night but reports from the scene earlier this morning indicated the booms and vessels on scene were handling the situation and did not require further aid. The other areas targeted for protection, Main, Sawmill, and Esther Bays, were holding in good shape.

Oil was confirmed in Resurrection Bay. Near Kodiak, sheen and mousse were discovered at Barren Island and in inlets on the southeast side of Shuyak Island.

0800      *USEPA:* Beach crews, vessel deployment, and safety issues were discussed at the Operations/ISCC meeting. The USFS was conducting beach assessments.

0900      *AOSC NOTE:* With USCG POLREP Forty-Eight of 0100, April 17, the Valdez MSO stopped carrying the approximate size of the spill, i.e., "approximately 250,000 barrels," in the subject caption of the POLREP and otherwise made no reference to the size of the spill. Now the subject line just read "POLREP 48, Major Crude Oil Spill, T/V Exxon Valdez, Prince William Sound."

0900      *ADES:* The Seward MAC Group, chaired by KFPN Superintendent Castellina, met at the Park's Visitor Conference Center. USCG LCDR Steve Heath and FOSC WAK CAPT Roussel attended. Additional participating agencies at this meeting included the Kenai Peninsula Borough, City of Seward, ADFG, ADES, ADEC, ADNR, USFWS, Exxon, and Chugach Alaska Corp.

A weekend reconnaissance showed that what had appeared to be pristine shoreline in the KFPN was actually oiled. The oil had come ashore and then tides had cleansed the top of the area. However, under the rocks there were heavy concentrations of oil.

Poor communications with the vessels which needed resupplying with food, water, and nets, was a critical issue. However, this was to be alleviated by the USCGC Morgenthau which was now in the Seward area.

Skimming in Resurrection Bay was temporarily on hold until the skimmer could be pumped. The skimmer was waiting to be emptied by the "Super Sucker" barge which had recently arrived in Seward. The barge was then to stay on site to pump the skimmer which was to skim a containment boom.

A beach survey was underway in the Fourth of July Creek area of Resurrection Bay and a VECO crew was responding.

DAY TWENTY-FIVE (Monday, April 17)

The USCG was continuing to skim at the mouth of Resurrection Bay and use sorbent materials within the bay itself. An 84-inch boom was to be deployed today to drag and seine for oil within the bay.

The USCG defined responsibility boundaries for the oil as Homer: west/southwest of Nuka Point including Nuka Island, and Seward: east of Nuka Point, excluding Nuka Island.

CAPT Roussel discussed the importance of distinguishing between response actions and cleanup. At Gore Point, the direction was to capture the oil now and skim later. Response was to occur first. If the oil could be picked up on the beach line it would be called a response action.

A transition was in place for the ICT which was expected to leave within the next few days. Exxon was to complete moving into the IC post by 1200 the next day. Exxon representative Sikstrom said Exxon would continue to support and help conduct USCG activities and that Exxon anticipated paralleling the ICT as much as possible.

According to the USCG, the MAC Group was to coordinate communications, be the central point for plotting the location of the oil, and coordinate skimming efforts, including those of the Soviet skimmer.

XXXX ADEC: ADEC personnel traveled to Seward to begin shoreline surveys out of Seward. Surveys in PWS continued.

XXXX USFWS: The ISCC, after reviewing Exxon's general beach cleanup plan submitted to the USCG on April 15, deemed it "inadequate" and identified 11 deficiencies and attendant remedies. Inadequacies dealt with geographic scope, logistics, ranking, waste management, and the need for more detailed execution plans for each shoreline. In particular, Exxon's plan identified 60.8 miles of shoreline for cleanup whereas the ISCC identified as much as 1,481 shoreline miles. The ISCC's recommendations were sent to FOSC VADM Robbins.

XXXX ADEC: ADEC Commissioner Kelso addressed a letter to ADM Yost at the MSO, Valdez, concerning what Kelso called "serious shortcomings" in Exxon's shoreline cleanup plan. Kelso urged that the recommendations of the ISCC be addressed and that, in addition, the plan be expanded to include recovery of oil from all nearshore and offshore waters, management of waste, coverage of shorelines impacted in the GOA, ongoing assessment of shorelines not yet impacted, and continuous evaluation of cleanup efforts so that additional resources could be deployed to meet the goal of completing cleanup this season.

Kelso had specific objections to the three land-based camps proposed by Exxon for shoreline cleanup work, suggesting that they had the potential for far greater impacts than alternatives such as floating camps. Additionally, Kelso asked for Exxon to submit detailed shoreline cleanup plans for agency review and approval five days in advance of initiating cleanup of specific shoreline areas.

1000 NRT/USCG: ADM Yost met with lead agencies to discuss comments on Exxon's workplan.

-- USEPA: ADM Yost and VADM Robbins met with ADEC, USNOAA, and USEPA representatives to discuss cleanup priorities outside of PWS. He told representatives at the meeting to prepare for a federal takeover and said he was scheduled to give the same news to Exxon.

XXAM ADN: Seward became the first community outside Resurrection Bay to have its beaches oiled. Driven by southeast winds, the oil slipped past protective booms and

DAY TWENTY-FIVE (Monday, April 17)

skimmers, to foul an area of beach about 2,000 feet long about two miles from the center of town. The Seward oil, first reported in the morning, was thick and mixed with kelp and seaweed and lying in a band up to ten feet wide at the high tide line, according to ADEC.

- 1300 *USCG POLREP FORTY-NINE*: CAPT Roussel, FOSC WAK, arrived Valdez.
- 1300 *NRT/USCG*: ADM Yost approved Exxon's workplan and presented comments to Exxon officials.
- *USEPA*: ADM Yost met with Exxon and discussed the Exxon-USCG operations plan. ADM Yost said USEPA Administrator Reilly had given sign-off authority to the local FOSC.
- *USCG POLREP FORTY-NINE*: Exxon's shoreline cleanup plan was accepted with comments. Exxon planned to start initial cleaning on April 22 (Day 30).
- *EXXON*: The USCG approved Exxon's shoreline cleanup plan.
- *ADN*: Exxon's much-anticipated plan for shoreline cleanup was unveiled in Valdez today. Exxon had submitted (on April 15) a 21-page plan for cleaning up the oil-blackened shores of PWS beginning April 22.
- Exxon's cleanup plan was given the official blessing of USCG Commandant ADM Yost but the USCG approval came with serious reservations and a demand for more work on the plan. The ISCC called the plan "decidedly sketchy."
- Exxon's plan called for Exxon to wash 305 miles of shoreline, mostly by flushing with cold water, by September 15. Exxon estimated the workforce would peak at 4,000 people in mid-June with support from almost 200 vessels. Exxon's target date assumed, among other things, that very little additional shoreline in PWS would be hit by the 1.2 million gallons of crude still being washed back and forth by the wind, tide, and current and that, despite PWS's unpredictable weather, cleanup crews would work 88 percent of the time between now and mid-September.
- At an afternoon press conference, Otto Harrison, general manager of Exxon's Valdez operations, could explain little about how Exxon would meet its deadline.
- Several agencies criticized the plan for its narrow focus. It dealt only with beach cleaning and only within PWS. Left unmentioned were how and when oil-fouled beaches outside PWS would be cleaned, how oil still at large in PWS and elsewhere would be recovered, and how wastes -- sewage, garbage, and oil-soaked materials resulting from the cleanup efforts -- would be handled.
- The USCG demanded that Exxon develop plans by May 1 for other areas hit or likely to be hit by the oil and that it say how it would manage waste. The CG also asked for milestones so it could gauge whether Exxon was keeping its timetable.
- At yet another press conference, ADEC Commissioner Kelso said the plan was a step in the right direction but criticized many of its points. Kelso said the plan fell short of providing the detailed plan needed in order to have confidence the shoreline cleanup would be done effectively. Kelso was particularly insistent that Exxon needed an in-water cleanup plan as well as a shoreline plan. Otherwise, he said, beaches might be re-oiled after they were cleaned.
- XXXX *McCLINTOCK*: Boom was deployed by English Bay residents in the lagoon just in time to protect the English Bay River system from the oil sheen which was just outside the community. Booms, however, could not be deployed in the ocean in front of the

lagoon because the tides and currents would have broken them apart, and oil mousse began washing ashore on the beaches.

1400 *NRT/USCG*: USCG CAPT Crowe assumed duties as Chief of Operations.

1545 *ADEC*: Oil was reported on the beaches near Afognak Company, a logging company on Afognak Island. Sheen was observed in the bay. Boats began mopping up the oil with sorbent booms.

1600 *NRT/USCG*: USCG CAPT Roussel was designated Assistant FOSC for the spill outside PWS. VADM Robbins remained FOSC for the entire spill.

-- *USCG POLREP FORTY-NINE*: VADM Robbins assumed FOSC for the entire spill. CAPT Roussel was designated Assistant FOSC for the spill outside PWS.

XXXX *ADES*: The State EOC met with FOSC VADM Robbins to discuss the need for Exxon to be more adequately prepared for responding in Seward, Homer, and Kodiak both to the oil spill (i.e. training, safety, communications, logistics, procurement, and contracting) and to community concerns (i.e. economic, social, health, legal). VADM Robbins was supportive of Exxon increasing its staff structure to address these broader responsibilities.

1800 *ADES*: The wages paid by Exxon had attracted people away from hospital positions and the Valdez hospital administrator reported the hospital was desperate for a certified lab technician and clerical help.  
ADOL had inspected two seaport housing camps and found both to have several serious safety violations.  
Logistics was continuing to work on added office space for ADEC, providing backup electrical power for the JCC, obtaining Exxon agreement to support State EOC/ADEC requirements for exposure/floation suits for flight passengers, and having ADOT develop an alternative to the crash/rescue support capability now furnished by the AK NG.  
The USCG presented a plan to control airspace around PWS up to 3,000 feet.

1900 *NRT/USCG*: ADM Yost and the Executive Committee met. ADM Yost urged immediate pursuit of shoreline cleanup using acceptable methods.

XXXX *USNOAA*: The weather hampered overflights again and in Valdez many meetings were held. These included a morning meeting of the Shoreline Protection Committee with ADM Yost and VADM Robbins, a meeting with VADM Robbins and USNOAA personnel to discuss NOAA's organizational structure for the spill, an evening Science meeting, and a Shoreline Prioritization meeting.  
Otters continued to be brought in at the rate of four to five a day. For the second consecutive day there were no otter deaths in the rehabilitation center. Six dead deer brought into the center were found to have died as a result of winter, rather than oil.  
In the WAK area, oil had not yet reached Katmai National Park.

XXXX *ADEC*: Three representatives of the governor of Florida were in Valdez to examine all aspects of the oil spill. Florida was interested in what changes might be needed in its own plan for dealing with oil spills.

DAY TWENTY-FIVE (Monday, April 17)

Oil that had previously moved west from Eleanor Island area was now heavily impacting the east side of Lone Island. Large pools of heavy oil were visible along the Island's east coast. The major portion of sheen had moved to the south of Perry Island and some of that part-way into Perry Bay. Some of the beach areas along the south side of the island were impacted. Those areas had not been affected by the oil until today.

A large portion of sheen was moving north between Perry and Culross Islands across from Hidden Bay. The southeast coast of Culross and portions of Applegate Island had also been affected by oil and a moderate size sheen had moved east into Port Nellie Juan.

The west side of Knight Island passage had intermittent sheens and streaks of oil and some mousse. The oil did not appear to be entering Main and Eshamy Bays. The oil in those areas was not as heavy as yesterday. The northeast side of Eleanor and Ingot Islands had large pools of oil along the coast.

The T/V EXXON VALDEZ was entirely boomed today. No oil was evident in the area. Clean ballast water was discharged. An overflight of the beach cleaning operations on Naked Island revealed what appeared to be a large diesel sheen offshore of the cleaning activities.

XXPM

**USCG POLREP FORTY-NINE:** Skimmers were recovering oil well but there were not adequate pumps to remove the viscous oil, seaweed, and kelp from the limited tankage on board the skimmers. Additional "Super-Sucker" pumps to ease this problem were on their way.

Oil was moving as predicted. It had impacted the shores of Lone, Perry, and Culross Islands, and along the headlands of Kenai Peninsula. Southeasterly winds had driven oil in the GOA slightly northward. The oil situation past Chugach Island consisted of sheen and mousse patches with the leading edge feathering and small tarballs breaking off.

A new Federal Communications Commission facility replaced the Transportable Communications Central (TCC) van which had provided air operations support at the airport. The TCC van was on standby.

Eight USCG cutters were involved in spill response. Two ACOE dredges and one USN troop ship were enroute to PWS while a USNOAA vessel was enroute to the Kenai Peninsula.

The Soviet skimmer, which was still enroute, was to be assigned to the Assistant FOSC Anchorage for operations control.

311(k) expenditures to date: \$9,053,170.

XXXX

**USFWS:** Leading edge of the slick in the GOA remained stationary in the face of south winds. The leading edge featured scattered sheens and occasional mousse from the Barren Islands north to the English Bay area of Kenai Peninsula. USFWS observations confirmed oil on four of the five Barren Islands and Shuyak Island of the Kodiak Archipelago. Observers stated that oil not seen on aerial surveys could be detected during on-ground surveys. Oil reported by USNPS personnel on Friday to be on Cape Douglas, Katmai Monument, was not confirmed by USCG following ground searches on four Katmai Monument beaches.

MAC Groups were now functioning in both Homer and Seward.

At Valdez, on this, the 25th day of the oil spill, 1,850 dead birds and 317 dead otters were stored in the freezer van. Of 282 live birds received at the center, 141 had died, 17 were released, and 124 remained. 155 of the dead birds in the freezer were marbled murrelets. Of 123 live otters received at the center, 67 had died and 42 were currently alive there. Six adults had been sent to Point Defiance, Wash., and two pups



to Monterey, Calif., for study. Four eagles came in dead to the center and one brought in live had been sent to the Raptor Rehabilitation Center at Sitka, Alaska.

At Seward, 20 dead birds had been received. Currently there were 69 live birds, all awaiting cleaning when the water was hooked up, which was scheduled for today.

A primary-care bird and otter facility had become operational in Homer. Purpose of the Homer facility was to collect, document, and store oil-killed animals, rehabilitate oiled birds, and stabilize live oiled otters before transferring them to Seward.

Results were available of the comparison of a post-spill migratory bird aerial survey of PWS on April 8 with the initial survey on March 28. They revealed an 84-percent reduction in sea ducks and diving ducks and a 65-percent reduction in loons, cormorants, and grebes.

XXXX

**ADN:** Crews began cleaning up the oil on a Seward beach this afternoon. Because it was mixed with vegetation in a sort of gooey mat, an ADEC spokesman said it appeared the oil would not soak into the beaches but could be picked up. Seward was the first town outside PWS to mobilize an oil-spill defense. On March 25, the day after the EXXON VALDEZ oil spill, officials in Seward declared an emergency.

Reports of oil along the outer Kenai coast and along the coast of Katmai National Park on the Alaska Peninsula remained spotty. The USCG could not confirm a sighting, reported by the USNPS, of a band of oil foam stretching across Kamishak Bay from Mount Augustine to McNeil River.

Another report indicated spotters may be missing oiled beaches, even when looking closely, because oil collecting under rocks on the beaches was virtually invisible.

The Homer spill response team reported table-top size patches of foamy oil in the mouth of Kachemak Bay at Port Graham, but said the oil had not been sighted ashore. Oil was stacking up along parts of the outer coast of the Kenai Peninsula and in some places was pooling up several inches deep. Two USN skimmers were dispatched from Port Graham to try to corral that oil.

XXXX

**ADN:** An independent naval architect said the tanker EXXON VALDEZ was structurally sound and should be able to make it to Portland, Ore., safely for repairs. The Port of Portland, however, had not yet signed a contract with Exxon, awaiting final approval by the State of Oregon.

XXXX

**USEPA:** An Exxon official from New Jersey made a presentation on using lined pits at the Valdez sewage facility for centralized storage of wastes until disposal. Another Exxon representative talked about three hospital incinerators, one solid waste incinerator, and one barge-mounted incinerator to arrive in three-four weeks. Alyeska would get the deballasted, decanted water.

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

TUESDAY, APRIL 18, 1989  
DAY TWENTY-SIX

## Approximate Alaska Local Time

### Operations oversight/review

- 0800      *USEPA*: "How clean is clean," the review process, final evaluations of shoreline cleanups, and protocol for cleaning cobble were topics of the ISCC.
- 1300      *USEPA*: The ISCC met again and determined to spend most of its time reviewing the findings of the Exxon three-person assessment team.
- 1315      *NRT/USCG*: ADM Yost, FOSC VADM Robbins, and RADM Baker, USN Commander Third Amphibious Group, discussed Naval support of cleanup.
- 1330      *USCG POLREP FIFTY*: The ARRT met by teleconference.
- *USNOAA*: Agencies agreed to use the ISCC for one-stop approval of shoreline operations for the FOSC.
- 1400      *NRT/USCG*: ADM Yost departed Valdez for Anchorage.
- *ADN*: ADM Yost left Valdez after five days on the job as the USCG officer-in-charge of the spill. His successor, VADM Clyde Robbins, said he planned to deal with the complicated task of getting Exxon to clean up the oil to the satisfaction of a number of federal and state agencies through persuasion rather than command. This was a sharply different approach than taken by Commandant Yost who began issuing orders within 12 hours of arriving but whose authority was fractured by issues of land ownership, agency jurisdiction, and who was paying for the cleanup work.
- ADM Yost did get Exxon to produce a beach cleanup plan on Saturday. When he left the USCG and Exxon were still arguing through the media over the completeness of the "conceptual" 21-page beach cleanup plan.
- The *New York Times* had reported Exxon Chairman Lawrence G. Rawl as blaming government bureaucracy for stalling beach cleanup work, saying the company was not able to begin cleanup efforts until the plan had been approved by 14 or 15 different agencies. That account was immediately disputed in Valdez. According to Dave Kennedy of USNOAA, a committee of eight federal and state agencies responded within 12 hours to the cleanup plan.
- XXXX      *ADEC*: FOSC VADM Robbins approved in writing, with reservations, Exxon's shoreline cleanup plan which called for cold-water flushing and hot-water/high-pressure cleaning, with vacuuming and skimming just offshore of the flushing. Robbins' approval letter required: a plan for areas outside of PWS, a waste-water management strategy, and the establishment of goals and milestones to pressure progress. The approval letter suggested the use of night-time cleanup operations.
- XXXX      *ADES*: State EOC Coordinating Officer Wuerpel provided a letter to FOSC VADM Robbins with his impressions since the March 24 oil spill. The letter was in preparation for a planned visit Wednesday by ADM Yost to Homer, Seward, Cordova, and Kodiak. Wuerpel's perception was that Exxon's response had been inept,

DAY TWENTY-SIX (Tuesday, April 18)

incompetent, insufficient, and irresponsible in proportion to the spill, and that the national-level response had been slow to materialize.

Wuerpel also felt that the spill-response effort was not responsive to the needs of Alaska's people. Wuerpel claimed that Exxon's acceptance of "full financial responsibility" had not been translated into action at the local level and that Exxon had relied on the initiative of others to locate needed equipment. Wuerpel was also critical of the focus on PWS with inadequate concern for the GOA.

"Exxon," Wuerpel said, "is an unwilling partner in the effort to resolve the problems caused by the oil spill."

Oil tracking  
XXXX

*NRT/USCG:* PWS overflight revealed heavy patches of oil from Wells Passage to Lone Island. Oil sheet was collecting in Port Nellie Juan. Light winds kept oil basically immobile. New light oil sightings were on the south side of Lone and Eleanor Islands and south to Smith Island. Overflights continued to show sheen and mousse patches from Chugach Islands east to Cape Resurrection. Sheen and mousse were sighted in the vicinity of Shuyak Island. No oil was sighted along beaches of Katmai National Monument. A very light tarball splattering was on Seward's 2,000 foot beach front. No other evidence was detected.

XXXX

*USNOAA:* Three overflights to Lower Cook Inlet and Kennedy Entrance observed mousse and scattered sheen in the vicinity of the Chugach Islands. Mousse and beached oil were observed on Elizabeth Island, and tarballs were seen on the beach at Shuyak Island. Two flights to the northwestern section of PWS observed medium concentrations of oil south of Perry Island.

*USNMFS* flew to Green Island and travelled by skiff to assess impacts on the Stellar sea lions. The area was observed to be virtually untouched by oil.

Fresh oil was observed at Exxon's test cleanup site on Eleanor Island.

XXXX

*USNPS:* Oil was confirmed to have hit the coast of Katmai National Park at Cape Douglas. Two intelligence gathering boats were working the northern coast of Katmai, and a third boat was to work the southern coast. A fourth boat was to depart later this week to work the Aniakchak National Monument coast. No major oil was sighted in the Shelikof Strait or Kodiak area.

Working conditions along Shelikof Strait were difficult, with high seas, poor communications, long distances to safe harbors, and rapidly changing weather adding to the danger. Boats being used were in the 90-foot range.

Oil recovery/defenses

0700-1900

*ADEC:* The State Ferry Aurora, with workers aboard, was in Valdez for resupply. It was welcomed by Commissioner Kelso and Valdez townspeople. The ferry was to leave later in the day to return to Northwest Bay where several seiners and other support vessels remained in Northwest Bay conducting cleanup operations.

Exxon assumed control of the vessels and logistical support at Northwest Bay from ADEC and was to assume control of the Aurora when it left Valdez.

XXXX

*ADEC:* Control of cleanup equipment at Sawmill, Eshamy, Main, and Esther Bays was still ADEC's and had not been transferred to Exxon.

0823-1428

*ADEC:* Representatives from the USCG, USEPA, and ADEC, tracked various vessels working on the oil spill: A tanker barge with two vessels along side, a vessel with "Super Sucker," and three USN Class V skimmers, one of them down indefinitely for mechanical reasons and one having electrical problems, were at Northwest Bay. A

vessel with two heavy skimmers worked Upper Passage in the morning; in the afternoon it set boom on the south end of Lone Island. Two vessels, a Walosep skimmer, and the Exxon command vessel were west of Upper Passage. Two barges with vacuums and three vessels were in a skimming operation southeast of Squire Island. A barge skimmed corralled oil at Perry Passage.

Two barges were in Lower Passage and one was being towed southwest from Upper Passage. A barge with three MII-9 mops and vessel were east of Lower Passage; another vessel east of Lower Passage was unable to offload oil due to heavy kelp content. A vessel with MII-4 mop was standing by east of Lower passage; a vessel with two GT-185 skimmers was skimming corralled oil at Lower Passage. A tank barge with "Super Sucker" was west of Mummy Island off loading oil from one of the USN Class V skimmers. A vessel with belt skimmer was standing by at Upper Passage. A vessel with "Super Sucker" west of Perry Island was skimming corralled oil; a vessel was skimming at Perry Passage. A vessel with auger test was outbound from Valdez small boat harbor.

One USN Class V skimmer was at Sawmill Bay, idle both because it was being repaired and the fact that there was little skimmable oil. One USN Class V skimmer was operating in Snug harbor, one was skimming at Upper Passage, one was being towed outside of Northwest Bay, one was skimming in heavy oil at Perry Passage, one was in tow at Perry Passage, one was operating west of Mummy Island, and one was operating east of Squire Island.

Radio traffic indicated that belt skimmers were losing effectiveness due to the heavy weight of oil/kelp mix. Additionally, only the two barges with "Super Suckers" were capable of offloading skimmers. Others were awaiting new pumps.

XXXX ADEC: On-the-water cleanup operations continued at Naked, Eleanor, and Knight Islands and in the Point Helen and Port Nellie Juan areas using skimmers and boom in conjunction with support vessels. The viscous, debris-laden oil was very difficult to transfer through the skimmers' integrated pumping systems. The "Hydrovac system" had proven the only effective pumping method for transferring recovered oil to tanker barges. Three more "Hydrovacs" were expected at the cleanup areas.

XXXX NRT/USCG: Skimming operations centered on heavy concentrations of oil near Perry, Long, and Culross Islands. Nine USCG cutters were operating in the area. A total of 53 vessels, including 33 skimmers, were on scene.

XXXX ADEC: Skimming operations centered in areas of heavy oil concentrations near Perry, Long, and Culross Islands. Skimming also continued in Northwest Bay, Upper Passage and Lower Passage, west of Eleanor Island, Perry Passage, Upper Knight Island, and Squire Island.

XXXX NRT/USCG: The Soviet skimmer M/V Vaydaghubsky received approval for 30-day entry into U.S. waters. The approval included authorization to work within three miles of land from Valdez to Homer and around the Kodiak Archipelago, and to make port calls.

-- ADEC: The Soviet skimmer was to begin its work picking up mousse streams in the Resurrection Bay-Harding Gateway area.

XXPM USCG: The ACOE dredge Yaquina arrived in PWS.

-- *ADN*: The ACOE dredges Yaquina and Essayons, which was to arrive later, usually worked to keep harbors clear along the Pacific Coast, dropping their 45- to 80-foot arms to the sea bottom and sucking up sand to keep harbors deep.

XXXX *ADES*: Homer was reported to be having trouble with the log booms. Some had sunk and some had broken up and were now navigational hazards.

-- *ADEC*: An ADEC representative in Homer reported no cleanup work had been done on the east side of Gore Point. The Homer MAC Group was trying to organize cleanup efforts, but said it had been unable to obtain sufficient support from Exxon.

USDOD assets  
XXXX *USCG POLREP FIFTY*: The USN vessel USS Juncau was enroute to PWS.

Beach cleanup  
XXXX *ADEC*: Commissioner Kelso traveled to Seward to look at cleanup of a small amount of oil mousse and seaweed which had washed up on the beach at Seward. Workers were cleaning oil from rocks with sorbent pads.

XXXX *USNOAA*: Cleanup crews on the northeast face of Naked Island were covering 1,000 feet of shoreline a day.

XXXX *USEPA*: Shoreline washing demonstrations continued on Eleanor Island.

2030 *USEPA*: At its evening meeting, the ISCC was told by Exxon's representative that Exxon had successfully cleaned 1,000 feet of shore on northeast Naked Island.

Salvage  
XXXX *ADEC*: Salvage efforts on the EXXON VALDEZ continued with plans for major repairs at a Portland shipyard.

Hazardous-waste disposal  
XXXX *USEPA*: The USCG asked USEPA for a report on the Apollo I ocean incinerator recommended by Region 10 on April 6.  
*USEPA, ADEC, and Exxon personnel met to discuss landfill and incineration options for oily waste. Exxon was storing most oily waste at the AMT and was interested in the Whittier incinerators.*

Day-to-day operations/management  
XXXX *ADES*: The EOC Fiscal Section was working on the commitments of funds and obligations made prior to the State EOC being placed in operation. Programs designed specific to the accounting needs for this disaster had been implemented. Control of expenditures through better bookkeeping was evident.  
*Effective today, all purchases of new equipment and supplies or new leases were to be approved in writing by the ADES Wasilla headquarters office. The emergency phase under which purchases had been acquired since the spill was no longer applicable.*

Communications  
XXXX *ADES*: The JCC console was activated today with most radio systems being operational. The repeaters in PWS were completed today and all microwave towers were in. The completion of all systems was 75 percent done.

Air operations

XXXX *ADES:* The USCG presented its plan for control of airspace in PWS to most of the aircraft contractors servicing state and federal agencies. The CG plan was to implement the restrictions by the weekend via NOTAM's issued by the FAA.  
A state contract with ERA helicopters replaced the refueling support for State EOC- and ADEC-contracted aircraft that was furnished by the AK NG.

XXXX *VALDEZ:* At Valdez airport, heavy traffic continued with 310 operations for the day.

Visitors

1330 *NRT/USCG:* Visiting Florida DNR personnel discussed cleanup with the FOSC.

XXXX *ADES:* The State EOC met with the Florida representatives who were from that state's Governor's Office, DNR, and DES.

Costs

XXXX *NRT/USCG:* 311(k) expenditures to date: \$9,053,170.

XXXX *ADES:* The Copper River Electric Coop serving Valdez and Cordova Electric reported that substantial losses would result to each utility from cancellation of fish-processing activities.

Wildlife

XXXX *EXXON:* A third Exxon-funded bird center was opened at Kodiak.

XXXX *USFWS:* A USFWS sea-otter contract rescue vessel completed work in the northwest Sound and moved to Chenega Island in the southwest Sound. The strategy was to shift part of the effort to coastal areas of the GOA where heavy oiling of beaches was occurring. Additionally, USFWS presented a plan to Exxon for migratory bird hazing to detour spring migrating birds from PWS.

Alaska Legislature

XXXX *ADN:* Nearly 20 oil-spill related bills had been filed in the Alaska legislature. With only three weeks left in the legislative session, it was unlikely many would be approved.

DAY TWENTY-SIX (*Tuesday, April 18*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

WEDNESDAY, APRIL 19, 1989

DAY TWENTY-SEVEN

## Approximate Alaska Local Time

### Operations oversight/review

XXXX *ADEC:* Commissioner Kelso was to meet with ADM Yost and mayors of cities on the Kenai Peninsula at Elmendorf AFB. The Commissioner and VADM Robbins were then to fly to Homer and Seldovia before returning to Valdez.

1100 *NRT/USCG:* ADM Yost and FOSC VADM Robbins attended a luncheon with mayors of affected towns prior to ADM Yost's departure from Anchorage.

1300 *NRT/USCG:* FOSC VADM Robbins met in Homer with the ARRT to discuss shoreline cleanup.

-- *USCG POLREP FIFTY-ONE:* FOSC VADM Robbins met in Homer with Asst. FOSC Capt. Roussel, ADEC Commissioner Kelso, and representatives from Exxon, USFWS, and the USNPS. They were all included in the ARRT meeting. Concerns for controlling unsolicited proposals were addressed.

1900 *USCG POLREP FIFTY-ONE:* The Operations Committee met with ADM Robbins after his return to Valdez.

XXXX *USEPA:* The ISCC established procedures to identify priority areas for cleanup and devised acceptable cleanup practices.

### Washington review

XXXX *USNPS:* Secretary of Interior Lujan and Alaska Representative Don Young were to arrive in Anchorage.

XXXX *GOV'S OFFICE:* Governor Cowper appeared in Washington, D.C., before the U.S. Senate Subcommittee on Environmental Protection urging Congress to rewrite the federal National Oil Spill Contingency Plan so that the Coast Guard was automatically placed in charge of large spills without first waiting to see if the responsible party does an adequate job.

The governor emphasized that the key to preventing another disaster like the EXXON VALDEZ oil spill was prevention. "Once the oil is on the beaches, we're already behind and the damage is done," the governor said. "I believe the EXXON VALDEZ spill could have been prevented and that, through reasonable legislation, we can prevent others in the future," the governor continued.

The governor urged Congress to require the USCG to thoroughly review the design, construction, and operations of oil tankers; to have the CG conduct more frequent tanker operator license tests; and to establish a world-wide computer inventory of oil spill equipment and a list of experts who can be put on site without delay. The governor also said the federal government should sponsor intensive research into how to prevent and cleanup oil spills.

He said oil spill penalties in federal law should provide an incentive to the industry to avoid spills. He also recommended that Congress require all tankers to

DAY TWENTY-SEVEN (Wednesday, April 19)



have equipment and trained personnel on board to deal with large spills the moment they happen.

-- *ADN:* Transportation Secretary Skinner told the Senate Environment and Public Works Committee that his department was preparing its own cleanup plan in case Exxon's proved inadequate. Skinner also criticized oil spill contingency plans for PWS for not considering the possibility of a tanker breaking up on the rocks.

The Sierra Club was critical of the bureaucratic response and said the President should go to Alaska, if for no other reason than to show that the administration cared.

-- *ADES:* Alaska Senator Stevens also testified at the Senate hearing. Senator Stevens said federal law should be changed to require one oil spill contingency plan and a single authority to direct any necessary responses. He also supported requirements for tankers to carry oil spill response equipment and for each major port to have a spill station ship, similar in concept to a fire station.

CDFU fishermen Ott and Hahn-O'Leary also testified. They talked about the lack of proper response equipment and discrepancies in the information between what Alyeska and Exxon said was being done to contain oil and what the Cordova fishermen observed on scene. They also pointed out that it was the 100th anniversary of commercial fishing in PWS. The first cannery was built in Cordova in 1889.

Oil tracking  
XXXX

*ADEC:* GOA - In Homer there was medium sheen off of Nuka Bay as far west as Gore Point and heavy sheen and mousse from Gore Point to Point Bede extending out to the southern edge of the Chugach Islands. There was medium sheen from the southern edge of the Chugach Islands to the northern edge of the Barren Islands extending north and west. There were a few light scattered sheens entering into lower Cook inlet. No oil was observed past Port Graham.

PWS - In PWS, the large sheen of oil in the Perry Island area had extended north on the east side of the island. The major portion of the sheen was located between Culross and Perry Islands and extended north to Culross Point. There was no further movement of oil to the north toward Esther Bay.

XXXX *USNOAA:* Overflights observed mousse and scattered sheen in the vicinity of Chugach Island and a mass of floating oil located between Eleanor and Perry Islands.

XXPM *USCG POLREP FIFTY-ONE:* Heavy concentrations of oil were in Perry Passage and on the west sides of Eleanor and Ingot Islands. Oil observed yesterday in Wells Passage and Port Nellie Juan was no longer visible. Oil concentration was scattered in Knight Passage. Little oil was visible south of Squire Point. Mousse streamers and sheen were on the west side of Resurrection Bay from Caines Head to Aialik Cape with heavy mousse in coves the east side Aialik Cape. Heavy mousse patches and sheen were in Nuka Passage and very heavy mousse patches were on the east side of Tagged Island. Mousse fingers and sheen were observed at Gore Point. No oil was sighted in Blying Sound. Northeast winds helped keep oil out of Kenai Fjords.

XXPM *USCG POLREP FIFTY-ONE:* USCG Strike Team representatives were monitoring the oil spill from positions on three Exxon command vessels, the USCGC Rush, and the dredge Yaquina, as well as on overflights.

XXXX *USNOAA:* Overflights included morning and afternoon overflights by an Exxon Twin Otter, morning by an Exxon Twin Otter, morning by a USCG C-130, morning by

DAY TWENTY-SEVEN (Wednesday, April 19)

an ADEC Beaver, morning by the NOAA Bell 212, afternoon by an Exxon Twin Otter, and afternoon by the Canadian Falcon.

Oil recovery/defenses

0600 *ADES:* The Soviet skimmer left Seward with the city's assistant harbormaster on board.

0700 *NRT/USCG:* Two Navy MARCO Class V skimmers, two Class XI skimmers, and two Exxon contract skimming vessels were deployed at the leading and trailing edges of heavy oil concentration in Perry Passage. Five Navy MARCO Class V skimmers and Exxon contract skimmers were deployed in the bays west of Eleanor Island to collect oil pushed by westerly winds. Three Navy MARCO Class V skimmers were deployed west of Squire Island.

XXXX *ADEC:* Skimmer operations were redirected to concentrate on near-shore areas to more effectively recover large amounts of accumulated oil. Open-water oil sheens were no longer to be chased by skimmers because of the low productivity.

1200 *NRT/USCG:* Soviet skimmer vessel arrived at Seward. USCG representatives, interpreter, pilot, and VECO representatives boarded the vessel to discuss proposed operations. The vessel was refueling and preparing for skimming operations near the mouth of Resurrection Bay.

-- *ADES and ADN:* The Soviet skimmer ship, M/V Vaydaghubsky, arrived in Seward. The ship's capability had been tested in the field but this oil spill was to be its first real operation. The ship's main attribute was its size, at 425 feet long and 70 feet wide, and about 1200 tons, compared to the 36-foot USN skimmers presently working in PWS. The vessel provided a stable work platform and a lot of storage capacity. Built in Finland in 1986, the vessel could sail anywhere in the world and could work in winds to 30 knots and seas to eight feet.

XXPM *USCG POLREP FIFTY-ONE:* The Russian skimmer, M/V Vaydaghubsky, was at the entrance to Resurrection Bay for testing before deployment to the west.

1500 *ADEC:* The Aurora was back at Northwest Bay to redeploy skiffs and direct support vessels on scene.

-- *ADEC:* Exxon assumed control of the state ferry Aurora and logistical support. The vessel was at Northwest Bay. ADEC seiners and other support vessels remained in Northwest Bay conducting cleanup operations.

XXPM *USCG POLREP FIFTY-ONE:* The ACOE dredge Yaquina arrived and the onboard dredge pumps, portable diaphragm pump, and screw pumps were being tested. The initial transferring was so slow that modifications were being made.

XXXX *ADEC, ADES:* Homer residents had begun constructing log booms in an effort to counter the encroaching oil. In the absence of ocean boom, they planned to deploy thousands of feet of timber.

XXXX *ADEC:* Two "Super Suckers" in Valdez and one in Seward were on-scene at the docks to pump-out the oil collection barges. The oil was too thick and hard for normal pumps to off-load the collected oil.

XXXX *USCG:* Exxon's cleanup and recovery estimate for the day was 3,189 barrels.

XXXX *ADN:* Three fisherman sitting in two rubber rafts in PWS and picking up oil with flour scoops and buckets intended for herring roe were doing about as well cleaning up PWS as the elaborate skimmers used by Exxon. They said they had collected 1,500 gallons which they were selling to Exxon for \$5.00 a gallon. Their work could be compared to a skimmer's average of 2,175 gallons this week, which was a large improvement over last week. The fishermen said they could have collected more but ran out of buckets.

Fish hatcheries/wild-stock areas

1000 *NRT/USCG:* USCGC Sweetbrier was on scene at Esther Island hatchery to deploy NAVSEA SUPSALV mooring system for protective booming operations.

XXXX *ADEC:* During overflight, the oil still remained eight to 10 miles from Esther hatchery. The rest of the areas were essentially unchanged.

Sawmill Bay was under control with boom cleaning and repair underway. The last fishing vessel at Sawmill Bay moved to Esther Bay where it deployed boom. Transfer of responsibility to Exxon for the cleanup equipment at Sawmill Bay (barge with "Super Sucker" and four Native corporation skiffs and boom), Main and Eshamy Bays (three fishing vessels and boom), Esther Bay (crab boat, fishing vessel, and boom), and Herring Bay (four seiners, garbage scow, tug boat with tanker/heliport barge, motorized tank barge with "Super Sucker," and grocery vessel) had not yet taken place.

USDOD assets

1030 *USCG:* The USS Fort McHenry was released from its support mission and would not be sent to Alaska until additional requirement was identified. In addition to the USDOD equipment mentioned on April 16, DOD aircraft committed to the oil spill operation included from the U.S. Army, two CH-47 and three UH-1H, and from the USAF, four HH-3, eight C-130, and three C-12. Also three Army air traffic controllers were at Valdez Airport; 14 URC-110 radios, and one Army recreation camp were in service.

Beach surveys

XXXX *USNOAA:* ADEC completed a composite color-coded map of oil spill impacts on shorelines, with observations up to April 18. A draft map of priority cleanup areas was being developed.

Beach cleanup

XXXX *USCG POLREP FIFTY-ONE:* Shoreline cleanup continued on Naked Island. 240 Exxon contractor personnel worked in four areas on the north side of the island.

XXXX *USNOAA:* Shoreline cleanup continued on Eleanor Island using washing techniques to remove the oil on the beach. The next priority was to protect the pinniped haulout areas on the north side of Smith Island.

XXXX *ADEC:* Beach cleanup at the head of Resurrection Bay continued. Most of the oil which was combined with kelp and tidal debris in the mid-tide line had been picked up. Cleanup crews were cleaning oil from rocks with sorbent pads.

ADEC cleaned up a small amount of oil mousse and seaweed which washed upon on the beach at Seward.

DAY TWENTY-SEVEN (Wednesday, April 19)

XXXX *ADN:* According to an Exxon spokesman, more than 1,200 laborers were employed scrubbing rocks or on vessels in the Sound.

XXXX *USEPA:* Two of the USEPA personnel assigned to the state were directing contractor efforts for beach cleanup.

A demonstration of Exxon's flush, flood, and skim method on Smith Island was cancelled but similar activity was viewed at northwest McPherson Pass. Exxon indicated that 600 feet of shoreline on McPherson Pass was clean. Exxon said it would have a future cleaning demonstration at a Smith Island haulout area.

Studies  
1030

*USEPA:* The USEPA water sampling team left aboard a seiner for a seven day sampling cruise. Esther Island was to be the first sampling station and the control station. The decision had not yet been made on which three other beaches would be used.

Salvage  
XXXX

*NRT/USCG:* Salvage operations continued. All tanks except No. 4S were inerted. Tank No. 4S was opened and found safe for work. Three box patches were installed in the tank over the small "repaired" fractures. Tank No. 4S was repaired temporarily.

Day-to-day operations/management

XXXX *ADES:* Logistics was able to acquire two Alaska Housing Finance Corporation houses and furniture to accommodate 14 State of Alaska employees in support of the Valdez operation, and computer equipment and office supplies arrived for the airport manager.

Day-to-day operations/management, local

0900 *ADES:* The Seward MAC Group met at the KFNP Visitor Conference Center. Sikstrom, Exxon's on-scene person in Seward, was leaving. Two individuals were mentioned as possible replacements. USFWS now had a Seward coordinator.

XXXX *USNPS:* The Seward ICT held a debriefing.

XXXX *ADES:* ADCRA attended a Seward City council meeting where resolutions were passed relating to the spill. Communities were passing numerous resolutions to present concerns to Exxon and the government in a more formal manner. Morning and afternoon public meetings were well attended in Kodiak.

XXXX *ADES:* Representatives from ADES, ADCED, ADHSS, ADOL, Alaska Legal Services, USSBA, US Internal Revenue Service, and Exxon visited the villages of Tatitlek and Chenega to answer questions and concerns of the residents.  
ADCRA developed a daycare/child-assistance plan for Cordova.

Communications

XXXX *ADES:* Work on the microwave system between Valdez, Jack Mountain, and Naked Island was completed and radios for Jack Mountain and Naked Island were interfaced into the State of Alaska microwave system. All projects were estimated at 90 percent complete.

Costs

XXXX *ADN:* The Soviet skimmer was costing Exxon \$15,000 a day.

1800

*ADES*: Oil cleanup activity disrupted freight activities to Kodiak Island communities. Building materials destined for a hydroelectric project in Larsen Bay were diverted. Both the community and Alaska Power Authority had been unable to find alternate transportation. It was feared the situation might become critical if materials did not arrive in time for in-stream construction to be completed before salmon returns closed the window of opportunity.

XXXX

*ADN*: State labor economist Neal Fried said the massive employment shock could be better measured when one considered the economy of the PWS region supports an average of (only) 2,400-2,600 employees. The labor market in PWS communities was disrupted as people left their \$6-\$7 an hour jobs as restaurant and hotel workers, and store clerks, cannery workers, and local businesses, to take jobs with VECO, Exxon's contractor, at the prevailing cleanup wage of \$16.69 an hour. One positive note was that high school students were finding employment in town because they weren't being taken by Exxon.

Wildlife  
XXPM

*USCG POLREP FIFTY-ONE*: USNMFS reported no seal or whale deaths yet from the spill although a prematurely birthed seal was brought into Valdez oiled. It was transported to Anchorage for care.

XXXX

*USNOAA*: Otters brought in were oiled not only from slicks on the water's surface but also from beached oil on rocks, as was the case earlier in the spill.

Exxon was building a bird rehabilitation center in Seward using volunteers. Plans were being made for a Homer bird rehab center. Due to low numbers of otters in the area, otters from Seward were to be brought into Valdez. Forty-three boats, a helicopter, and two floatplanes were deployed in Cordova, PWS, and Whittier to systematically search for animals.

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

THURSDAY, APRIL 20, 1989  
DAY TWENTY-EIGHT

## Approximate Alaska Local Time

### Operations oversight/review

- XXXX *USNOAA*: Exxon's Research and Development Committee presented a proposal to VADM Robbins and NOAA scientists to use Corexit 7664 dispersant for beach cleanup. NOAA requested further details on the product and advised Exxon on the required protocols to obtain approval for the test.
- XXXX *USCG*: FOSC VADM Robbins emphasized to Exxon the April 22 deadline for a concerted effort to clean shoreline.
- XXPM *USCG POLREP FIFTY-TWO*: The Exxon cleanup plan was apparently on its time line but milestones were not to be available until May 1.
- XXXX *USNOAA*: USNOAA officials in Anchorage met with Asst. FOSC WAK CAPT Roussel and received two assignments. The first was to establish land ownership for the areas that would be involved in the cleanup of the Kenai Peninsula in order to gain access to private property and to ensure that owners were apprised of the cleanup plans. The second was to make a qualitative survey of the outer Kenai Peninsula to determine the extent of beach oiling and to locate areas where oil had pooled in sufficient quantities to allow access to waterborne cleanup crews.

### Washington review

- XXXX *USNPS*: U.S. Interior Secretary Lujan and Representative Young were to go to Valdez today.
- *ADN*: Representatives Curt Weldon (R-Penn.) and Elton Gallegly and Robert J. Lagomarsino (Rs-Calif.) were to have accompanied Secretary Lujan and Congressman Young. The trip was arranged by Congressman Young and even Secretary Lujan's trip was being paid for by the Congress.
- *ADEC*: Secretary Lujan and Congressman Young scheduled no meetings with ADEC for their visit to Valdez today.
- 0930 *NRT/USCG*: FOSC VADM Robbins briefed Interior Secretary Lujan, Alaska Congressman Young, and Congressmen Gallegly and Weldon.
- XXXX *ADN*: Secretary Lujan and Representative Young spent the morning with ADM Robbins and Exxon officials and visiting an otter rescue center and the AMT. After lunch, they landed at a beach on Naked Island where workers were washing with high-pressure hoses.
- *USNOAA*: Interior Secretary Lujan took a 4.5 hour overflight in the NOAA helicopter to observe the spill scene in PWS. The flight included two stops to observe cleanup activities.

DAY TWENTY-EIGHT (Thursday, April 20)

Oil tracking

XXXX

*ADES:* In Seward, Exxon had an "open" helicopter policy for City Council members and others who wanted to fly over the spill.

XXXX

*USNOAA:* Three overflights conducted along the Kenai Peninsula from the Chugach Islands to Resurrection Bay and Cape Junken observed heavy mousse and sheen in the vicinity of Gore Point and south of the Chugach Islands. Small patches of mousse and light sheen were observed in the lower half of Resurrection Bay.

XXXX

*ADEC:* PWS - Overflight indicated the heaviest sheen remained along the northwest side of Eleanor Island, Ingot Island, and Herring Bay. Heavy sheen existed also between East Eshamy Bay and Herring Bay, Perry Island and Culross Island, and Perry Island and Lone Island. In the remaining Sound were isolated pockets and ribbons of sheen.

*WAK:* Shoreline along the east side of Gore Point, north to Tonsina Bay, was heavily covered with oil mousse. The mousse-covered shoreline also extended into Nuka Passage.

*Homer:* Positive identification of substance at Cape Douglas was awaited. Winds in the area of Barren Island and Chugach Island were pushing the oil to the south and southeast. Very heavy oil was pooled at Gore Point. ADEC recommended that it be skimmed as soon as possible since conditions were calm. Scattered patches of mousse were seen throughout the entire area of observed oil.

*Kodiak:* Confirmed sitings of oil sheen and tarballs including heavy mousse along the south side of Ushagat Island and along the east side of Amatuli Island in the Barren Islands area. Tarballs had also been observed on the northeast beaches of Afognak Island and on beaches or floating along the shoreline along the west side of Afognak Island and Kodiak Island in Uganik Bay and Uyak Bay.

Oil recovery/defenses

1330

*ADEC:* The Soviet skimmer was deployed in Resurrection Bay. Boom from the vessel was being deployed by two tug boats.

XXXX

*NRT/USCG:* The ACOE dredge Yaquina, deployed as a skimmer, recovered 1,100 barrels of oil. A total of 53 vessels, including 35 skimmers, were performing oil recovery operations.

XXPM

*USCG POLREP FIFTY-TWO:* After modifications, the ACOE dredge Yaquina, deployed as a skimmer vessel, recovered 1,100 barrels. Evaluation indicated the vessel could be effectively used to remove oil collected in booms by other vessels. A 50/50 oil-water mixture was collected through the dredge arm with the inverted dragging head acting as weir. Another dredge, the Essayons was enroute, and modifications for similar use were planned.

Plans were to evaluate daily the efficiency of floating skimmers in PWS and to transfer them to the GOA if they could be used more effectively.

XXXX

*NRT/USCG:* A "Super Vac" was sent to Seward; two were employed on barges for offloading skimmers.

XXXX

*USCG:* The USCG Cutter Rush continued air traffic control duties and enforcement of air-safety zone. The Morgenthau operated near Port Dick with skimmer and fishing vessels. The Storis and Planetree deployed boom and skimmer operations in Resurrection Bay. The Ironwood was underway enroute to Kodiak.

XXXX *ADEC:* No skimmers were in operation in the Kenai Fjords area east of Gore Point. Two skimmers were clogged and sitting in Takoma Cove. Another was clogged and sitting in the McArthur Pass area.

Fish hatcheries/wild-stock areas

XXXX *USCG:* The USCGC Sweetbriar was to establish a gate-type boom at the mouth of Lake Bay to protect Esther Island hatchery.

XXXX *ADEC:* At Sawmill Bay, the outside protection boom was continually tended. Boom in the main part of the bay was in place followed by triple boom and two final hatchery protection booms. The internal booms were free of oil. Esther Bay was secured and protected by double outside boom, followed by a triple boom in front of the hatchery. No oil was present and boom protection was satisfactory.

At Main Bay, outside deflection boom and inside boom were intact. Triple boom was protecting the area and the inside area was free of oil. 3,000 feet of boom was on standby for maintenance. At Eshamy Bay the main deflection boom contained oil. The containment boom remained intact and no oil was present in the hatchery.

At McClure Bay, containment boom and hatchery protection boom effectively protected the bay. No oil was present in the hatchery.

AK NG assets/operations

XXXX *ADCS:* ADMVA equipment at Valdez included one UH-60, two CH-54s, one UH-1H, one forklift, one wrecker, one 1,200 gallon tanker, one 5,000 gallon tanker, two CUCVs, two sedans, three pickups, one Blazer, one water trailer, one 1.5 ton flatbed truck, seven TACSAT radios, two computer systems, one HF radio, one fire truck, two nine passenger vans, one Suburban, three 600-gallon fuel pods, and one aircraft refueling system. Additionally, a C-130 H operated out of Kulis AK ANG Base, a C-12 out of Elmendorf, and a UV-18 out of Bryant Army Airfield.

Some 140 tons of equipment and supplies had been flown in 54 missions. The ADMVA airlift had carried absorbent, boats, booms, jet fuel, a fire truck, kennels, timber, water trailers, and utility vehicles.

ADMVA contingency and support missions included forward refueling operations, air traffic control, JTF coordination, communications support, aerial reconnaissance, air crash rescue, and public information

At this time, 20 personnel were assigned to Valdez and 46 operated out of Anchorage.

Beach surveys

XXXX *ADEC:* The shoreline survey team continued working along the coastline from a cove south of Point Countess including the entire shoreline of Chenega Island. Surveys of Perry and Lone Islands were also conducted. The shoreline survey team was to mobilize in Homer to begin shoreline surveys in that area and was to establish a center in Seward for surveys along the Kenai Peninsula.

XXXX *USNOAA:* The USNPS drew up some shoreline priority guidelines for Katmai National Park. They were particularly concerned about the possibility of cleanup crews disturbing bears.

Beach cleanup

XXXX *NRT/USCG:* Shoreline activities continued on Naked Island. Over 250 Exxon contractor personnel were supporting cleanup operations in four areas on the north side of Naked and Peak Islands.



XXXX *ADES:* ADOL inspections on hotel boats continued and the beach crew on Knight Island, where low-pressure wash was being used, was also inspected. Few problems of safety were found and addressed.

Studies  
XXXX *USEPA:* Latouche Island, Wilson Bay, was selected by the water-sampling team as the lightly oiled beach station.

Salvage  
XXXX *NRT/USCG:* Nearly 41,062 barrels of oil and water mixture and 14,270 barrels of oil were transferred to a barge alongside the EXXON VALDEZ.

XXPM *USCG POLREP FIFTY-TWO:* Salvage operations continued on the EXXON VALDEZ. 41,062 barrels of oil/water mixture and 14,290 barrels of oil were transferred to a barge alongside the EXXON VALDEZ. 2,392 barrels of measurable oil remained onboard the EXXON VALDEZ in cargo tanks. Some oil remained in most tanks but the layer was so thin it could not be measured from soundings. Eleven thousand barrels of heavy fuel and about 10,000 barrels of medium diesel fuel were aboard. Divers continued to cut "hangers" from the bottom of the hull. Hull cleaning plans were being developed.

Day-to-day operations/management  
XXPM *USCG POLREP FIFTY-TWO:* The USCG spill-response operations received authorization to move to the ADES building.

XXXX *ADEC:* The ADEC spill organization included management services (spill tracking and data management, office management, personnel, procurement, logistics), public information, response command [logistics, operations, community operation, science team (water quality, shoreline cleanup, damage assessment, shoreline survey) surveillance, technical support, documentation, and PWSDO].  
[AOSC NOTE: Our guess is that "PWSDO" stood for PWS Daily Operations since duties of that section included permits, it was staffed by permanent Valdez field staff, and the initials fit.]

Day-to-day operations/management, local  
XXXX *USNOAA:* Meetings were held in Homer, Seward, and Kodiak. Items dealt with the type and level of response to oil and the importance of delaying beach cleanup until most of the oil was ashore.

XXXX *McCLINTOCK:* In Seldovia, VECO's Tim Robertson became director of the Oil Recovery Unit in Chugach Passage. The community began writing its plan for recovering free flowing oil before it hit the beach.

XXXX *ADES:* More than 100 people attended a public meeting in Cordova organized by Alaska Seafood Marketing Institute, ADFG, and ADEC to learn about plans for quality inspection and market advertising.  
Chugach National Forest Ranger Knorr opened an office in Valdez to continue coordination of oil spill cleanup on USNFS lands during the coming months. The majority of islands in PWS, including Green, Knight, and Montague, were part of the 5.9 million acre forest. Knorr's staff was to provide direction for locating electronic facilities, refueling sites, and other support activities on the uplands portions of the islands.

Communications

XXXX *NRT/USCG:* The State of Alaska-funded and constructed Joint Communications Center was added to the response communications network.

Costs

XXPM *USCG POLREP FIFTY-TWO:* Estimated obligations against the 311(k) fund to date were \$11,750,806. The large increase was due to demobilization and cleaning costs of National Science Foundation equipment. An increase in the ceiling to \$15 million was requested.

XXXX *ADES:* ADCRA through ADES was funding an additional planning staff member for the City of Valdez for three to four months. Representatives of ADCRA Job Training Partnership Act program began visits into Valdez and local communities to extend resources to local employers having trouble attracting workers because of the high-paying oil spill cleanup jobs.

XXXX *ADN:* State tourism officials delivered to Exxon a \$14 million public relations campaign to quell what they described as a wave of cancellations by would-be Alaska visitors. The funding request was in response to Exxon's April 2 offer to help finance a state campaign to potential visitors.

Damage Assessment

XXXX *USEPA:* The USDOJ held a training session in Anchorage on CERCLA (Superfund)/CWA oil spill regulations.

Wildlife

XXXX *USNOAA:* Cumulative dead birds were as follows: Valdez center-2,373, Seward Center-412, Homer Center-37, and Kodiak center-2. The dead otter accumulation at Valdez was 396. Bird species with the highest mortality rates were pelagic cormorants, horned grebes, and white-winged scoters.

XXXX *USNPS:* Exxon put the Seward otter facility on hold.

XXXX *ADES:* The Seward bird center was still not operational despite information which said it was. The Seward otter center was on indefinite hold.

XXXX *USFWS:* A USFWS helicopter otter survey out of Homer counted 554 otters along the GOA coast between Seldovia and Gore Point; an estimated 75 percent were in oiled areas. Additionally, black cod fishermen in Shelikof Straits reported to Kodiak National Wildlife Refuge staff the sighting of many oiled birds including oiled birds which landed on their ships's decks.

DAY TWENTY-EIGHT (*Thursday, April 20*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

FRIDAY, APRIL 21, 1989

DAY TWENTY-NINE

## Approximate Alaska Local Time

Operations oversight/review

1300

*NRT/USCG*: ARRT teleconference updated members and tasked them with investigating use of Corexit 7664 dispersant for shoreline cleanup.

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*USEPA*: The ARRT discussed the movement of the T/V EXXON VALDEZ and assurances the State of Oregon would require for repair there. The criteria for approving dispersant use was again discussed: in depths of 50 fathoms or greater, dispersants are preapproved; in depths of 10-50 fathoms, dispersants may be applied with ARRT approval; in depths of 10 fathoms or less, dispersants are not authorized. Concern was expressed about the use of Corexit 9527 which was not appropriate for freshwater. The use of elastomers in all zones and freshwater was proposed for consideration.

USEPA was to advise the FOSC about the types of dispersants that were available and their appropriateness.

XXXX

*USEPA*: Exxon proposed using Corexit 8654 (sic) on beaches. A small-scale test on Green Island was considered possible. Concerns about using the dispersant on beaches included: that the dispersant wouldn't remove the oil but would hide it by driving it into the gravel, that the surfactants were toxic, and that anaerobic conditions in the gravel might contribute to toxicity.

USEPA was preparing short background papers on beach dispersants, especially Corexit 7664.

EPA made a presentation on bioremediation. Two proposed methods were nutrient enrichment and the release of concentrated cultures of naturally occurring organisms that would be capable of degrading hydrocarbons. These strategies were to be tested on small plots of contaminated beach.

XXXX

*USNOAA*: The USCG was setting up a proposal review panel in Groton, Conn., to evaluate unsolicited proposals being received by various agencies and groups involved in the spill.

XXXX

*ADEC*: Cleanup guidelines were drafted by the multi-agency committee involving ADEC, ADFG, USNPS, USFWS, and USNOAA. ADEC approved the use of solvents in boat-cleaning procedures with the condition that the solvents not be rinsed from the boats into the water.

XXXX

*ADES*: The ISCC sent a memorandum to the FOSC which recommended that, as Exxon had not provided a shoreline cleanup schedule, Exxon be advised to begin cleanup in high-priority areas of Smith Island by April 23. The ISCC also recommended that Exxon provide a plan by April 24 for cleanup of high-priority areas of islands in Montague Strait. Cleanup there had to be completed by May 10 to prevent disturbance of pinniped pupping activities. The memo also outlined the ISCC's preferred completion dates for Applegate Rocks, Seal Island, east end of Green Island, Smith Island, and Little Smith Island. In no cases should cleanup be later than May 10 in any of these areas.

DAY TWENTY-NINE (Friday, April 21)

2100 *USEPA:* At an ADEC-USEPA staff meeting, it was announced that ADEC would be taking over field operations.

Washington review

XXXX *USNPS:* Interior Secretary Lujan and Representative Young were to go to Homer and Kodiak with fly-overs of Kenai Fjords, Katmai, and Lake Clark National Parks. Alaska Senator Stevens was briefed in Anchorage by the USNPS Alaska regional director. Alaska Senator Frank Murkowski was also in Alaska.

XXXX *ADES:* Senator Stevens attended a luncheon and briefing in Kodiak.

Oil tracking

XXXX *USNPS:* The Katmai NP superintendent reported oil on or near beaches at Sukoi Bay/Cape Douglas and Big River and possible oil streaks between Hallo Bay and Kukak Bay. A USCG individual and an ICT member reported oil at Kukak Bay and Cape Douglas.

XXXX *USNOAA:* The only overflight of the day was by Exxon personnel out of Homer. Some light sheen was reported off the Kenai Peninsula in the area of Port Graham, mousse with sheen outside Port Chatham, isolated mousse patches around the Barren Islands, and some light sheen just south of Cape Douglas.

XXXX *ADEC:* Overflight revealed the following:

PWS - The heaviest sheen remained along the northwest side of Eleanor Island, Ingot Island, and Herring Bay. Heavy sheen was observed between East Eshamy Bay and Herring Bay, Perry Island and Culross Island, and Perry Island and Lone Island. There were isolated pockets and ribbons of sheen in the remaining parts of the Sound.

Seward - The shoreline along the east side of Gore Point, north to Tonsina Bay was heavily covered with mousse. The mousse-covered shoreline also extended into Nuka Passage.

Homer - Winds from the northwest and west in the area of Barren and Chugach Islands pushed the oil to the south and southeast. Heavy oil was pooled at Gore Point. Scattered patches of mousse were seen throughout the entire area of observed oil.

Kodiak - Oil sheen, mousse, and tarballs in the Barren Islands area were confirmed. Tarballs were observed on the northeast beaches of Afognak Island and on beaches or floating along the shoreline along the west side of Afognak and Kodiak Islands in Uganik Bay and Uyak Bay.

XXXX *ADEC:* Overflight summary. PWS - Heavy sheen remained northwest of Eleanor and Ingot Islands and Herring Bay. Heavy sheen also existed east of Ingot Island, south of Perry Island, and in Knight Island Passage between Eshamy Bay and Drier Bay. In the remaining Sound, there were isolated pockets and ribbons of sheen. Areas where the amount of sheen appeared to have increased included the Eshamy Bay to Drier Bay area, east of Ingot Island, and into Knight Island Passage area.

Seward - Much heavier sheen and mousse streamers were appearing closer to shore from Harris Bay southwest to the Pye Islands. Much mousse remained in the Gore Point

Kodiak - Substantial oil sheen and mousse continued to hang on the end of the Kenai Peninsula. Sheen and mud pies of mousse continued to come ashore on the Barren Islands, Shuyak Island, and Afognak Island. Tarballs were found on Marmot

DAY TWENTY-NINE (Friday, April 21)

Island and Tonki Cape. Oil spots were reported in the lower Cook Inlet and upper Shelikof Strait area and there were reports of some light sheen as far south as Cape Gull in the Shelikof Straits. Planes and helicopters continued to search for oil locations and to monitor the Kenai Peninsula.

- XXXX *USFWS*: Overflight showed continued presence of large patches of mousse/oil between Gore Point and Barren Islands. In PWS, forecasters believed most of the remaining free-floating oil was the result of shifting winds releasing previously trapped oil from bays and coves.
- XXPM *USCG POLREP FIFTY-THREE*: Oil -- sheen and mousse -- was moving southward. In the area of the Asst. FOSC WAK, it showed south and southeast of Gore Point. In preparation for expected heavy weather (high winds and low ceilings), extra flights checked the condition of boom in environmentally sensitive areas. Buoy tenders were available to tend boom as required.
- Oil recovery/defenses
- XXXX *NRT/USCG*: Skimmers moved into Knight Island passage area for oil recovery. A MARCO skimmer was working in Sawmill Bay in concert with USCG monitor, OWOCRS, and 84-inch boom deployed in Resurrection Bay.  
M/V Vaydaghubsky with a USCG monitor onboard was working with two tugs to rig skimming booms in Resurrection Bay. Fifty-eight vessels, including 37 skimmers, were operating as recovery or support craft.
- XXPM *ADEC*: The Soviet skimmer was observed southwest of Gore Point, steaming toward Gore Point-Nuka Passage area. No skimmers were observed working those areas.
- XXXX *USCG*: The ACOE dredge Yaquina worked Knight Island. The day before it had worked Herring Bay.
- XXXX *USCG*: The USCGC Yocona reported approximately 12,000 gallons of oil trapped in booms in Resurrection Bay awaiting removal. The "Hydrovac" and a second vacuum system were not successful in pumping out the MARCO skimmer sump. The Yocona and the Cutter Planetree were operating in Resurrection Bay as was the Soviet skimmer. The Soviet skimmer was rigging skimming booms with two tugs as support vessels. The plan was for the USCG to trap and direct oil to the Soviet skimmer. The Planetree and fishing vessels continued booming operations in Resurrection Bay. The skimmer Mr. Clean II was skimming oil in Chugach Pass as directed by the USCGC Morgenthau. The Mr. Clean III skimmer was working well off Gore Point. The USCGC Rush continued air traffic duties. The Storis was deploying boom and skimmer operations in Nuka Bay.
- XXXX *USNOAA*: The USNOAA ship Rainier coordinated the operations of the Russian skimmer which was positioned to work on the oil patches reported at the mouth of Nuka Bay. The USCG and Exxon requested that NOAA coordinate cleanup recommendations including consideration of the use of a kelp harvester to remove the impacted seaweed.
- XXXX *ADEC*: Two clogged skimmers were sitting in Takoma Cove and another in the McArthur Pass area.

Fish hatcheries/wild-stock areas

XXXX *USCG*: The USCGC Sweetbriar was establishing gate-type boom at the mouth of Lake Bay to protect the Esther Island hatchery. Additional booms were being deployed to Paul's Bay, Discovery Bay and Big Fort Channel

XXXX *ADES*: PWSAC reported the boom protecting the AFK hatchery at Sawmill Bay was working well as patches of oil and mousse continued to flow by Sawmill Bay. The booms required constant maintenance and cleaning and four boats were on site under contract to PWSAC. 28.5 million pink salmon fry were in the net pens in front of the hatchery and each day from one to three million fry were emerging from the incubators and going into the net pens. No decision had yet been made on when the fry would be released.

At the Esther hatchery, an open boom system was placed across the entrance to Lake Bay after being transferred from the hatchery at Sawmill Bay where it was no longer needed. The USCG Cutter Sweetbriar helped to deploy and anchor the 3,000 feet of boom. Oil had been observed just south of the hatchery. 80 million chum salmon fry and 80 million pink salmon fry were out of the incubators at Esther and another five to seven million were emerging each day.

At Cannery Creek hatchery, one million pink salmon fry were in net pans.

PWSAC still planned on releasing the salmon fry at all three hatchery sites at the height of the plankton bloom though plans were being evaluated daily.

Beach surveys

XXXX *USNOAA*: Survey teams used the following protocols to determine the amount of oil coverage on shorelines:

- very light coverage to trace of oil (tarball swashes): band of oil less than one-meter wide.
- light coverage: band of oil one to three-meters wide.
- moderate coverage: band of oil three to six-meters wide.
- heavy coverage: band of oil more than six-meters wide.

XXXX *ADEC*: In PWS, ADEC had surveyed 901.8 miles of shoreline in 34 areas, of which 315.7 miles were found to be impacted in varying degrees. Another 248.4 miles of shoreline had been surveyed at six areas in the GOA; some 85.6 of these miles were impacted.

Beach cleanup

XXXX *NRT/USCG*: Some 250 Exxon personnel applied high-volume/low-pressure beach washing technique to Naked Island shoreline. The USCG reported 240 feet of shoreline cleaned.

-- *USCG*: Shoreline cleanup concentrated on Naked Island by flushing with high-volume/low-pressure salt water. 250 Exxon contract personnel were on scene and a USCG monitor reported 240 feet of shoreline cleaned.

-- *ADN*: Naked Island gave workers a beach relatively close to Valdez -- 50 miles -- where they could start learning how to clean beaches. The beach was not as oiled as Smith Island, to where they would move next. On Smith Island, a few miles to the south, nothing had been left clean or alive in the 50-foot strip below the high-tide line. Even the trees were spattered with tar. Oil, the color and consistency of cold chocolate syrup lay in a thick layer over the rocks and filled the cracks between them with pools deep enough to swallow a foot. It seeped steadily back into the ocean and the petroleum stench was potent.

-- *USEPA*: The ISCC observed cleanup techniques and met at Naked Island.

Studies  
XXXX *ADEC*: The water-quality monitoring team was in its third day of collecting data for environmental fate and effect studies on water, intertidal, and sub-tidal areas affected by the oil spill.

Salvage  
XXXX *NRT/USCG*: Salvage operations to cut hangars from bottom of EXXON VALDEZ continued. Draft proposals for tank and hull cleaning were presented to the USCG.

Day-to-day operations/management, local  
XXXX *ADES*: At the Seward MAC Group meeting, options for deflecting oil if the winds changed, coordination of air operations, and priorities for bird cleaning and beach surveying were discussed. *ADEC* opposed the city's idea of corralling oil to one "sacrificial" beach vs. impacts all over.

XXXX *ADES*: The Kodiak DAC opened.

XXXX *McCLINTOCK*: Writing its Oil Recovery Plan, the City of Seldovia noted that oil was impacting beaches at English Bay, 20 miles away, and that there were heavy concentrations of oil in the water south of Point Adams. The community was very concerned about oil hitting tidelands at the head of the way, having been told by USNOAA experts that such oil could persist for eight-ten years (In contrast, oil impacting a rocky headland or exposed cobble beach was expected to weather away in one-two years.)  
The community observed that Exxon's large commercial skimming operations were concentrating on areas with the highest concentrations of oil. The leading edges and fringes of the spill were not being skimmed. The community planned its attack based on the premise that oil floating in the water was much easier to remove than oil on a beach.  
Seldovia's action plan was to treat oil recovery like a commercial fishery for oil. A fleet of small boats would fish for the widely scattered blobs of oil drifting toward Cook Inlet and Kachemak Bay. Exxon would be like the cannery and provide gear for capturing oil along with logistical and tendering support. Under this suggested plan, Exxon would establish a price per gallon for retrieved oil as an incentive fee for the local fleet to go capture oil. Exxon would supply fuel, protective gear, capture gear, and tankage for oil removed from the water.

Air operations  
XXXX *NRT/USCG*: USAF had transported 928 tons of response equipment by 15 C-5 missions and 97 tons of equipment by four C-141 missions.

XXXX *ADES*: Air operations started the day with 30 missions, each consisting of two to three individual flights. Aircraft were in use from CAP and contract aviation sources. The State EOC, Exxon, and the USCG were each scheduling their own flights but integration of aviation activities to support cleanup efforts was anticipated within a few days.

XXXX *VALDEZ*: Air traffic at Valdez Airport, which had averaged over 300 operations a day for the last three days, dropped to 203 arrivals and departures.



Costs  
XXXX

*ADN:* As of this afternoon, the State of Alaska had billed Exxon more than \$1.5 million for oil spill costs ranging from a new \$50,000 computer system to \$300 worth of Chinese food. A spokesperson in the governor's division of administrative services said Exxon had already written some checks and had agreed to pay all the state's costs associated with the spill. The costs billed to Exxon included \$15,000 a day rental of the State Ferry Aurora, more than \$100,000 in air charter and cargo flights, \$200,000 for fuel for AK ANG planes and helicopters, \$5,250 for survival suits, and \$7,000 for film and camera equipment. If Exxon refused to pay any of the expenses, Governor Cowper had a \$10 million emergency appropriation from the Alaska legislature to draw on, letting the state fight later with Exxon over reimbursements.

Damage assessment

XXXX

*USEPA:* The USDOJ training on CERCLA/CWA regulations continued.

Wildlife

XXXX

*EXXON:* A fourth Exxon-funded bird center opened at Homer.

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

SATURDAY, APRIL 22, 1989  
DAY THIRTY

## Approximate Alaska Local Time

### Operations oversight/review

XXXX *NRT/USCG*: Shoreline cleanup plan for Applegate Rock area was approved by FOSC.

-- *USNOAA*: Exxon gained approval for cleanup work on Applegate Rock and Northwest Bay at Eleanor Island. The Northwest Bay site was sheltered enough to allow cleanup during the strong southerly winds expected over the next few days. In the meantime, cleanup activities were focused on NW Eleanor island.

### Washington review

XXXX *USNPS*: Interior Secretary Lujan and Representative Young were to visit KFNPN.

XXXX *USNOAA*: Senator Stevens met with resource agencies in Kodiak and was briefed on preparations there for shoreline impact and subsequent cleanup. Kodiak had already agreed to and mapped natural resource priorities and ADEC had a proposed beach cleanup organization structure. The USCG Commander indicated 34 vessels could be called on for resources. USNOAA explained its role in coordinating local resource agency efforts.

### Oil tracking

XXXX *USCG POLREP FIFTY-FOUR*: Overflight of PWS from Snug Harbor to Mummy Bay sighted predominantly heavy sheen; some streamers sighted south of Point Helen. Overflight of Asst. FOSC WAK area indicated large patches of mousse/oil continued to be sighted between Gore Point and Barren Islands. Light sheen with mousse patches between Gore Point and Barren Islands. Light sheen with mousse patches in Resurrection Bay between Caines Head and Calisto Head. Sheen was observed around Elizabeth Island and Port Chatham. Light oil was witnessed near Perl Island. Mousse patches remained in Port Dick and McArthur Pass to Pye Reef. Heavy concentrations of oil remained in Nuka Passage.

XXXX *ADEC*: Overflight reconnaissance was limited by the weather.

### Oil recovery/defenses

XXXX *USCG POLREP FIFTY-FOUR*: Three monitors were aboard the USCG Rush, one aboard the dredge Yaquina, one aboard the Aurora, and two aboard fishing vessels. Additionally, one shoreline monitor was at Naked Island/Northwest Bay.

XXXX *USCG POLREP FIFTY-FOUR*: The USCGC Rush resumed air traffic control from the Iris. It was continuing shoreline cleaning-crew monitoring with Strike Team members by small boat.

XXXX *NRT/USCG*: Skimmers in Resurrection Bay were unable to pump debris-contaminated weathered oil. Mr. Clean Class III skimmer recovered oil/mousse off Gore Point. USSR skimmer was shut down for modification after recovering 12 barrels of oil.

DAY THIRTY (Saturday, April 22)

XXXX *ADES:* Results of the Soviet skimmer in Resurrection Bay were not as anticipated. The oil was too thick and full of sticks. The vessel was moved to Nuka Bay where oil concentrations were larger and the Seward EOC reported good to excellent results there.

XXXX *NRT/USCG:* Skimming operations continued to maximum degree possible in PWS Upper Passage, Northwest Bay, lower Knight Island Passage, and Eshamy Bay. Exxon estimated 2,990 total barrels recovered on April 22.

XXXX *USCG:* Skimmers moved into Knight Island Passage area for oil-recovery operations. Skimmers encountered difficulty with kelp clogging the pumping systems.

XXXX *USCG POLREP FIFTY-FOUR:* Fifty-eight vessels were operating recovery or support activities. These included 37 skimmers, two MARCO support vessels, five berthing vessels, one boom-support vessel, nine barges, and three vessels deploying vacuum trucks.

XXXX *USEPA:* An ADEC-USEPA boat was out all day mapping oil and booming.

Beach surveys  
XXXX *USNOAA:* USNOAA completed land owner/access maps for the Lower Kenai Peninsula.

XXXX *ADEC:* ADEC shoreline survey crews and monitors were turned back because of weather.

Beach cleanup  
XXXX *NRT/USCG:* A land-use permit for cleanup operations on all state-owned tide and submerged lands was received from State of Alaska for 1989.

-- *USFWS:* Exxon received a land-use permit from the state for shoreline cleanup operations on all state-owned tidal and submerged lands for the 1989 field season.

XXXX *USCG:* Today was the start of Exxon's shoreline cleanup plan as directed by ADM Yost. Work crews were to be moved to Smith Island to begin cleanup, and shoreline cleanup was to continue also at Big Fort Channel.

-- *USFWS:* Exxon was to start its major beach cleanup. Roughly 825 miles of beaches in PWS were identified for initial cleanup. This constituted roughly one-third of the Sound's shoreline (islands and mainland), estimated by the USFS at 2,497 miles.

Studies  
XXXX *USEPA:* Water-quality sampling continued at a moderately oiled site at Shelter Bay on Evans Island.

Salvage  
XXXX *NRT/USCG:* Divers continued to cut hanging steel pieces from the EXXON VALDEZ hull. Stopper holes were drilled at ends of all transverse fractures. ADEC personnel were scheduled to arrive by vessel to monitor water quality and observe repairs. Some trapped oil continued to surface from bridge keels of the EXXON VALDEZ.



Day-to-day operations/management

XXXX *ADEC:* ADEC's organizational chart was revised. The science team was divided into two teams, science (water quality and damage assessment) and shoreline (shoreline survey and shoreline cleanup).

XXXX *ADES:* The ADOL/OSHA agent moved from Seward to Homer. ADCED established an Economic Impact Advisory Team.

XXXX *USNOAA:* USNOAA had 13 personnel in Valdez, two in Anchorage, one in Homer, one in Seward, and one in Kodiak occupied with spill response.

Day-to-day operations/management, local

XXXX *USNOAA:* In Seward, at the daily MAC Group meeting, the USCG and Exxon addressed operational issues.

XXXX *ADES:* The Seward EOC was concerned about changes in Exxon staff there; once staff got oriented it changed. Alaska Senator Murkowski stopped at the Seward airport and gave a briefing on the spill and Congressional concerns.

XXXX *ADES:* Exxon reported that it was setting up a command post in Seward to coordinate and better supervise beach cleanup. The MAC Group recommended use of Liebersbach, the former BLM incident commander. This was made an action item.

Communications

XXXX *ADES:* The Joint Communications Center was functional with four operations personnel, two terminals, a satellite radio, HF SSB, and four marine channels. The JCC could talk with state troopers in Anchorage and Glenallen.

1400 *ADES:* A new Communications Committee comprised of state, USCG, and Exxon officials met for a planning session to discuss aspects of the new JCC. General discussion centered around communication needs to Seward and Homer. The long-term link between Homer, Seward, and Valdez was to be a microwave link on the State of Alaska system.

Air operations

XXXX *VALDEZ:* The weather drastically affected air operations at Valdez Airport. Traffic, 85 arrivals and departures, was the second lowest of the month to date.

Costs

XXXX *USCG POLREP FIFTY-FOUR:* 311(k) expenditures to date: \$12,674,066.

Wildlife

XXXX *USNOAA:* In Valdez, dead animal totals were birds, 2,497, and otters, 402; 52 otters were determined to have died from causes other than the oil spill. Thirty-five live birds and 52 live otters remained in custody at the rehabilitation centers.

XXXX *ADES:* A baby otter, a girl, was born at the Valdez sea otter facility. Since the mother was not able to nurse, staff was hand feeding the pup.

XXXX *ADES:* The bird center was operating at Seward.

XXXX *ADES:* Washington, D.C., gave its approval to an otter center in Seward. Exxon was given seven days to establish the center.

DAY THIRTY (*Saturday, April 22*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

SUNDAY, APRIL 23, 1989

DAY THIRTY-ONE

## Approximate Alaska Local Time

1400 *ADES*: By proclamation of the governor of Alaska, today, the thirtieth day of the spill, was Prince William Sound Day. Alaskans and others were encouraged to observe five minutes of silence. During the silence period, KCHU, the public radio station in Valdez, aired five minutes of recorded sound of birds, animals, and water, in PWS.

## Operations oversight/review

XXXX *USFWS*: The FOSC approved a beach cleanup plan for Applegate Rocks; cleanup to begin by April 26. Target completion dates for priority pinniped haulout beaches were April 30, Applegate Rocks; May 3, Seal Island; May 5, east end of Green Island; May 10, Smith and Little Smith Islands.

XXXX *ADEC*: ADEC's SOSC was reviewing a program for ADEC's oversight of Exxon's cleanup activities. The program was developed in coordination with USCG, USFS, USFWS, and ADFG.

## Washington review

XXPM *ADES*: Senator Stevens arrived in Cordova in the early afternoon for an overnight visit.

## Oil tracking/recovery/defenses

XXXX *ADEC*: PWS - Gale force winds during the night broke the boom at Eshamy Lagoon. Exxon's overflight at 0810 spotted oil entering Eshamy Bay and along the northern shore. Two skimmers were left in Northwest Bay and one for Main Bay and the rest were mobilized to Eshamy. The 1030 overflight observed oil in Main Bay. At midafternoon three Exxon representatives were at Eshamy Bay directing operations.

Seward - The afternoon flight revealed that the 25-mile per-hour winds pushed yesterday's oil closer to shore and into shore in the Two Arm and Thunder Bay areas. The majority of oil was still in Nuka Passage/Gore Point Area. The Mr. Clean skimmer was still operating and with some success. The Russian skimmer was not operational due to heavy weather.

Overflight reconnaissance was not reported for Homer nor Kodiak.

XXPM *USCG POLREP FIFTY-FIVE*: PWS - Overflight showed light to medium sheen with mousse fingers accumulating near shore on the western side of Knight Island Passage from Port Nellie Juan to Eshamy Bay. Low visibility and turbulence limited flight operations south of Eshamy Bay.

WAK - Overflight indicated high southeast winds were pushing mousse and sheens into bays on the southern shore of the lower Kenai peninsula. Rocky, Windy, and Chugach Bays had mousse patches and heavy sheen. Sheens and mousse were also sighted in the vicinity of Barren Islands and south of Cape Douglas. No oil was seen north of English Bay, in Kamishak Bay, or north of Kamishak Bay. Heavy mousse was observed washing up on beaches of Gore Point, coves in Rocky Bay, Windy Bay shores, and coves east of Chugach Bay.

DAY THIRTY-ONE (Sunday, April 23)

XXXX *USFWS: WAK - Weather in the western GOA continued to prevent overflights to assess oil movement. The most recent overflight there was April 21. Southwest winds of 35 knots likely had pushed oil back into coastal fjords and coves. Oil was reported well into Resurrection Bay near Seward.*

XXXX *ADEC: Trajectories of satellite-tracked drifters showed that oil could be expected to collect on eastern shorelines and in eastward-facing coves.*

Oil recovery/defenses

XXXX *NRT/USCG: Adverse weather forced halt of skimming operations.  
A vessel with 4,800 feet of boom and U.S. Navy MARCO skimmer was dispatched to Kitoi Hatchery, Izbut Bay. Eight fishing vessels from Seldovia and Port Graham were deployed to Flat Island. The fishing vessels towed herring nets attempting to collect mousse and tarballs in the area.  
Boat cleaning station was operational at Herman's Harbor.*

XXPM *USCG POLREP FIFTY-FIVE: Boom failed in Eshamy Bay due to wind conditions and a limited amount of oil was driven into the bay. Four Navy MARCO V skimmers and the USCG Cutter Iris were deployed to recover oil lost by booms.*

XXPM *USCG POLREP FIFTY-FIVE: Fishing boats from Kodiak, Port Graham, and Seldovia were deployed to spot and, with their fishing nets, attempt to catch any oil. A 40-foot landing craft was contracted to pick up oiled nets. More fishing boats were to be staged from Homer, if necessary, to remove oil collecting in coves and inlets on the southern shore of Kenai peninsula.*

*2500 feet of sea curtain was delivered to Seldovia for deployment by local residents.*

*A number of vessels were anchored in the Port Dick area due to bad weather.*

XXXX *USCG: No skimming was conducted in the western GOA due to weather conditions. The Mr. Clean was turned back by 18-foot seas at Nuka Bay Passage. Eight fishing vessels were in Seldovia and Port Graham to tow herring nets to try to collect mousse or tarballs.*

XXXX *USCG: The ACOE dredge Essayons was working near Gore Point with Mr. Clean III and eight fishing vessels which were booming oil. The skimmer had recovered approximately 100 barrels to date. The USCGC Cutter Rush was conducting cleanup operations in PWS, the Morgenthau was working along with the Soviet skimmer and a USCG helicopter spotter, the Storis was in port to repair 84-inch boom, and the Yocona and Planetree were working together pulling boom in Gore Point.*

XXPM *USCG POLREP FIFTY-FIVE: Three USCG monitors were stationed aboard the Cutter Rush while one each were on the ferry Aurora, the Arctic Salvor, the Arctic Tuktu, the Soviet skimmer, and NOAA's Rainier. An additional monitor was handling shoreline operations at Naked Island/Northwest Bay.*

XXPM *USCG POLREP FIFTY-FIVE: Fifty-eight vessels were involved in oil-recovery or support activities. These included 37 skimmers, two maintenance/support vessels for the MARCOs, five vessels providing accommodations, one boom-support vessel, nine barges, and three vacuum trucks deployed on vessels.*



Fish hatcheries/wild-stock areas

XXXX *ADES:* Pink salmon fry must be released into a plankton bloom for their best survival rate and the PWSAC determined this was the peak of zooplankton bloom in PWS. Accordingly, the first fry release took place at Esther Hatchery; 12 million of 100 million pink fry and 12 million of 64 million chum fry were released. Pink fry from Cannery Creek were to be transferred beginning April 25 to the Sawmill Bay Hatchery.

Beach cleanup

XXXX *USEPA:* Beach cleanup continued on Northwest Bay. The weather there was bad and wind was blowing onshore. The Cleanup Committee suggested to Exxon's representative that skimmers be brought to shallow drafts in the area but this suggestion does not appear to have been passed on.

Studies

XXXX *ADEC:* ADEC's water-quality monitoring team continued initial data collection for the oil spill fate and effects study. The study was measuring concentrations of petroleum hydrocarbons, including polynuclear aromatics and selected metals in water, sediment, and molluscan shellfish tissue. Department staff continued to assist Exxon contractors in collecting water-quality and sediment samples in PWS and the GOA.

XXXX *ADES:* Oil from the EXXON VALDEZ had little potential to submerge or sink in PWS or the GOA according to a report from USNOAA scientists to FOSC VADM Robbins. According to John Robinson, the NOAA SSC, mechanisms which might account for sinking in other regions (sinking by contact with suspended particulate material, sinking by contact with shoreline sediments, sinking through wave turbulence) were absent in PWS and the GOA.

Day-to-day operations/management

XXXX *USFWS:* USFWS announced development of its PWS oil response/assessment organization. In Valdez, USFWS was operating out of temporary space until June 1, having lost its space a few days earlier at the USCG MSO, Valdez.

Day-to-day operations/management, local

XXXX *NRT/USCG:* USCG and Exxon representatives visited villages on Kodiak Island to gather and disseminate information.

XXXX *ADES:* Exxon arrived early at the Seward MAC Group meeting with a written report, pictures, and map. Liebersbach (commander for USNPS KFNPT at Seward March 29-April 10 and then advisor in Seward to the MAC Group) was talking with Exxon about coming on board.

*[AOSC NOTE: Liebersbach was released from oil-spill related duty on April 23 and returned to his home agency, USBLM Alaska Fire Service.]*

Communications

XXXX *USCG POLREP FIFTY-FIVE:* Communications with the USS Juneau on the satellite command net were established. The Juneau was in the northern GOA enroute to Valdez to serve as a support vessel for 400 contract personnel. Two satellite units at Seward and Homer, currently used on another channel by the CAP, were being incorporated into the command net in anticipation of the need for more support in those areas.

DAY THIRTY-ONE (Sunday, April 23)

-- *USCG POLREP FIFTY-FIVE*: The JCC was operational with access to 10 multi-agency circuits within PWS with remote access for data entry extended to the USCG operations center. This connectivity provided virtually total access from any radio or telephone facility to any other in the area. Additional state remote sites were to be added in a few days.

-- *ADES*: The JCC was operating from 0630-2100+ hours daily. Capability existed to patch between almost all radio systems and telephones. Satellite communications centers were being planned for Seward and Homer with direct microwave links to Valdez. Radio repeater systems were being planned for the southern coast between Seward and Homer. Exxon, USCG, and Alaska State representatives were to rotate in supervising the center.

Air operations  
XXXX *ADES*: Air-Ops conducted 17 missions and had five weather cancellations. From March 25 to April 22, the state provide 418 air missions in support to the oil spill. Fifteen aircraft carried 1,752 passengers and 186 tons of cargo and provided 1,058 hours in the air.  
ADEC now wished to highlight the use of fixed-wing float aircraft in place of rotor-craft except for Seward, Homer, and Kodiak.

XXXX *VALDEZ*: Traffic at Valdez Airport was up again with 188 arrivals and departures.

Visitors  
XXPM *USCG POLREP FIFTY-FIVE*: Two personnel from the PEMEX oil spill response team arrived for a nine-day familiarization visit. A video production team retained by the Navy was assisting the USCG in documenting its resources.

Costs  
XXXX *NRT/USCG*: ADFG closed the herring fishery on north and west side of Afognak Island due to sheens in area.

XXXX 311(k) expenditures to date: \$13,081,063.

Wildlife  
XXXX *NRT/USCG*: A bird cleaning station opened at the NG Armory and an otter station at USNMFS site, Gibson Cove (*Homer???, Kodiak???*).

XXXX *USFWS*: Exxon agreed to construct a 25-otter-capacity rehabilitation center in Seward. Modular units were under construction but a site lease with the city was still pending.

XXXX *USFWS*: At the end of this thirty-first day of the oil spill, animal rehabilitation centers were operating at Valdez, Seward, Homer, and Kodiak.  
In Valdez, 33 sea birds were being treated and 53 had been released at Valdez Arm. 251 of those brought into the center for treatment had died. Five live eagles had been received at the center and one of these was sent for rehabilitation to the Sitka Raptor Rehabilitation Center. 2,505 total birds were in the storage freezer.  
Fifty-five live otters were being treated at the center, 60 brought in for treatment had died there. None had been released into PWS. Twenty otters had been sent to facilities out of state. Of these, five of the first six sent had died but the rest were still alive. A total of 402 dead otters were in the storage freezer.

At Seward 1,256 dead birds were in freezer storage. 130 birds had been received live of which 21 had died, 46 were in rehabilitation, and 63 had been transferred to Valdez for care. Six live otters had been received at Seward and all were transferred to Valdez. Thirty-one otters received dead were in freezer storage.

At Homer, a triage rather than rehabilitation facility, 143 birds had been received dead and 28 live. Nine of these were live at the center and 19 had been transferred live to Seward. No live otters and two dead otters had been received.

At Kodiak, five dead seabirds and one dead raptor had been received. Two seabirds were being cared for. No otters had been received.

DAY THIRTY-ONE (*Sunday, April 23*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

MONDAY, APRIL 24, 1989  
DAY THIRTY-TWO

## Approximate Alaska Local Time

### Operations oversight/review

XXXX *USCG POLREP FIFTY-SIX*: USCG Commandant ADM Yost authorized the FOSC to request the Fort McHenry to PWS for use in support of Exxon's shoreline cleanup effort.

1330 *NRT/USCG*: The ARRT discussed weather conditions, oil movement, booming and skimming operations, salvage of the EXXON VALDEZ, support services and the USCG evaluation of unsolicited proposals.

### Washington review

0700 *USCG POLREP FIFTY-SIX*: Senator Stevens and a party of seven arrived in Valdez by helicopter from Cordova. They were briefed by the USCG and Exxon at the Exxon Command Center. After a press conference, they were taken on an overflight of PWS before returning to Cordova.

XXXX *NRT/USCG*: USCG and Exxon personnel briefed Senator Stevens.

### Oil tracking/recovery/defenses

XXXX *ADEC*: After an Exxon overflight spotted oil entering Eshamy Bay and along the northern shore, all but three skimmers and associated boom tenders were mobilized to Eshamy. At mid-afternoon, three Exxon representatives were present at Eshamy Bay directing operations. Jet boats were required to tend boom for oil gathering in the lagoon. Observations near Eshamy Bay indicated that the oil was submerged at various levels.

At Seward, oil was pushed closer to shore and onto shore in the Two Arm and Thunder Bay areas. The majority of the oil was still in the Nuka Passage-Gore Point area.

XXXX *ADEC*: PWS - Primary boom at mouth of Main Bay was holding this afternoon but the exterior deflection boom had lost anchor at the southern end and oil was entering the mouth of the bay around the boom. No oil was visible in Eshamy Lagoon. A heavy oil streamer was running from Evans Point to the east side of Erlington Island; three MARCO Class V skimmers were working that area. The deflection boom at Point Helen was ineffective when observed. Oil was going under the inland leg of the boom. The offshore end of the boom had sunk and a heavy streamer was heading toward Montague Strait.

Seward - Low ceilings and poor visibility prevented aerial reconnaissance. Gale warnings were in effect for the Gore Point area. A mousse streamer near the head of Resurrection Bay appeared headed for shore.

Kodiak - The reconnaissance team was unable to fly due to inclement weather. Heavy oiling was reported off Tolstoi Point.

### Oil recovery/defenses

XXXX *NRT/USCG*: Adverse weather continued to hamper efforts to skim oil. The ACOE dredge Yaquina with USCG barrier skimmer managed to operate in South Knight

DAY THIRTY-TWO (Monday, April 24)

Island Passage and Mummy Bay. Two USN SUPSALV skimmers worked in Northwest Bay. Remainder of 58 vessels, including 37 skimmers, stayed in sheltered waters.

XXXX *USFWS:* The ACOE dredge Essayons was succeeding in collecting oil where other skimmers had failed due to oil viscosity and debris. The dredge boom was turned upside down so that it looked upward. It then approached the floating oil/debris from underneath and sucked it in.

Thirty-five fishing vessels were deployed from Kodiak to spot and attempt to catch any oil approaching Kodiak Island. Two fishing vessels were deployed near Cape Douglas, Katmai National Monument, with 3,000-foot boom to react to any oil sighted and to alert herring fleet. Eight fishing vessels from the villages of Port Graham and Seldovia were deployed with herring nets to catch oil and tarballs possibly heading that way.

XXXX *USNPS:* Storms off the coast of Kenai Fjords resulted in damage to booms at James Lagoon and McCarty Lagoon.

1030 *McCLINTOCK:* The Seldovia Oil Recovery Team left the community in about nine fishing vessels and several skiffs and went to Port Graham to test their oil recovery equipment and work with locals on ideas for their oil spill response.

1600-1715 *USCG POLREP FIFTY-SIX:* The Navy vessel Juneau was greeted at Valdez City Pier at 1600 and arrived at Valdez City Dock at 1715.

XXXX *ADES:* The City of Seward noted absorbent boom material was ineffective in collecting oil ribbons, mousse, and tarballs. Alternatives such as seining or netting were being discussed with Exxon.

XXXX *USCG POLREP FIFTY-SIX:* Determining the daily amount of oil recovered was difficult. Exxon only reported oil recovered from skimmers to barges and was not including WAK recovery. An estimated total of 43,000 barrels of oil had been recovered in PWS.

XXPM *USCG POLREP FIFTY-SIX:* The ACOE dredge Yaquina was operating with a USCG barrier skimmer in south Knight Island Passage and Mummy Bay while the ACOE dredge Essayons was deployed in Agnes Cove of Resurrection Bay.

Skimming efforts in the PWS area were limited and in the WAK area of the spill no skimmer operations were conducted due to adverse weather. Eight fishing vessels with herring nets were deployed to Port Graham with an "OSV Husky" and a skimmer to protect against any mousse patches approaching Seldovia, Port Graham, and Kachemak Bay.

DOD assets  
XXXX

*USCG POLREP FIFTY-SIX:* An inventory of USDOD assets deployed included an Army CH-47 at Fort Richardson Army Base; an Army UH-1, a USAF HH-3, a USAF UH-60, a USAF C-130, and a USAF C-12 at Elmendorf AFB; an Army UH-1H at Homer; a USAF URC-110 at Valdez. Additional DOD equipment included Army air traffic control at Valdez, a USAF Air A/E decontamination apparatus at Valdez, a USAF K-10 loader at Kodiak, 20 Navy Class V (MARCO) skimmers and two Navy Class XI (MARCO) skimmers, an Army recreation camp at Seward, ten Navy tow boats, 11 Navy 2,000-foot boom vans, 20 Navy mooring systems, two Navy shop vans,

DAY THIRTY-TWO (Monday, April 24)

two Navy rigging vans, two Navy cleaning vans, four Navy inflatable boats, and one Navy pollutant pump system.

Beach cleanup

XXXX *NRT/USCG*: Two hundred feet of shoreline were cleaned during the last two days.

1200 *ADEC*: Beach cleanup operations closed due to weather.

XXXX *ADEC*: ADEC and Exxon shoreline cleanup staff met to discuss field organization, personnel, and evaluation issues.

XXXX *HORTON*: An Exxon press release said Exxon was ahead of schedule on the shoreline cleanup.

Studies

XXXX *USEPA*: USEPA was readying its memo on Corexit 7664 for Tuesday's ARRT meeting. The initial conclusion was that shoreline cleaning with the dispersant might work if it was allowed to sit for a period of time and then given a high-pressure wash. Within the Agency, there were reservations about even this use. EPA was to caution that dispersants other than just Exxon products should be considered. One of these, which was being investigated, was Topsall, a less toxic dispersant. It was thought that Exxon had purchased something from France.

Salvage

XXXX *NRT/USCG*: Cutting of hangars from the EXXON VALDEZ was completed. Drilling of stopper holes at end of fractures continued. The stripping of forepeak and No. 1C tanks was to be completed. Oil in No. 1C tank was to be boomed to reduce oil leaks. ADEC personnel were on a contract vessel alongside the EXXON VALDEZ.

Hazardous-waste disposal

XXXX *USEPA*: Exxon's waste management plan was to be submitted on May 1. In the meantime, storage of wastes continued at the AMT. The incinerator there had a one-ton a-day capacity compared to the six-tons a-day which could be handled by the Whittier incinerator.

Day-to-day operations/management, local

XXXX *ADES*: Seward noted it's facsimile machine was being deluged with information. Instead of coordinated information, it was now getting separate reports from each agency.

The Homer EOC organization was changing as a result of Exxon transferring \$2 million to the Kenai Peninsula Borough for use in projects to protect Kachemak Bay. How these projects would be administered remained unclear pending clarification of the availability of a formal Incident Command Team.

XXXX *McCLINTOCK*: The village of English Bay was mobilized. VECO was renting the Community Center as its base of operations. Seventy people from the village, or one-third its population, were at work in either beach cleanup or vessel charters. Another dozen villagers were babysitters who had received state certification for daycare services and were paid the same \$16.69 hourly wage as the oil spill workers. Lacking safety training classes and shovels, people were developing their own beach cleaning methods.

Air operations

1900

*USCG POLREP FIFTY-FOUR*: FAA controllers aboard the USCGC Rush were to be airlifted to Valdez Airport.

XXXX

*USCG POLREP FIFTY-SIX*: FAA special air-space regulations out of Valdez went into effect.

Costs

XXXX

*ADFG*: The State Division of Commercial Fisheries announced that no miscellaneous shellfish permits would be issued to harvest those species in PWS and the Lower Cook Inlet's Outer and Eastern Districts until the danger of oil contamination had passed. No permits were expected to be issued before April 1, 1990. To date no requests had been received for permits to harvest miscellaneous shellfish in PWS.

XXXX

*USCG POLREP FIFTY-SIX*: 311(k) expenditures totaled \$13,770,112 to date.

Damage assessment

XXXX

*USEPA*: In Juneau, the Natural Resources Trustees held their first meeting.

Wildlife

XXXX

*USFWS*: Due to bad weather, no live or dead animals were brought into the rehabilitation centers.



# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

TUESDAY, APRIL 25, 1989

DAY THIRTY-THREE

## Approximate Alaska Local Time

XXAM      The *Anchorage Daily News* released text from radio conversations on March 24 between the EXXON VALDEZ and the USCG Valdez Vessel Traffic Center after the vessel ran aground. The tapes were obtained under a Freedom of Information Act request by the newspaper.

XXXX      *NRT/USCG*: Four major networks gave coverage to existence of USCG tapes of radio conversations with EXXON VALDEZ at the time of grounding.

## Operations oversight/review

0830      *USEPA*: The ISCC met at its usual time and continued to discuss the training of beach-cleanup evaluators and the shoreline use of dispersants.

XXXX      *USCG POLREP FIFTY-SEVEN*: FOSC VADM Robbins established teams of field representatives to represent him and monitor activities at shoreline cleanup sites. Monitoring teams were supervised by a deployed coordinator. Training of monitoring teams began aboard the USCGC Rush. Monitors were assigned as follows: USCGC Rush-two, USNOAA Rainier-one, ACOE Yaquina-one, ACOE Essayons-one, M/V Aurora-one. M/V Vaydaghubsky-one, M/V Clean Seas III-one, M/V Arctic Salvor-one.

1910      *NRT/USCG*: FOSC attended evening operations meeting with Exxon personnel onboard the USN vessel Juneau.

## Oil tracking

XXXX      *USNPS*: Oil was reported on the Katmai coast as far south as Missak Bay.

XXXX      *ADEC*: Weather prevented surveillance overflights at PWS, Homer, and Kodiak, and permitted only a limited morning reconnaissance at Seward. State EOC-scheduled flights were non-existent due to bad weather. The main body of oil remained well away from Kodiak Island.

XXXX      *USFWS*: General southeast winds to 35-40 knots and up to 20-foot seas in the Barren Islands, which had prevailed for three days, subsided in the afternoon, thus allowing boats to venture from sheltered areas to view the storm's effects on the weathering oil. Continuing low visibility prevented overflights. The last overflight on Sunday afternoon showed mousse fingers in the lower Cook Inlet along the Kenai Peninsula shoreline from Port Graham south to Barren Islands.

## Oil recovery/defenses

0800      *ADEC*: The recovery of oil was much reduced due to heavy winds and inclement weather. During the 24-hour period just ending, only 76 barrels were reported recovered. Cleanup activities remained concentrated in the area of Nuka Island, Gore Point, Port Dick, and the vicinity of the Chugach Islands.

DAY THIRTY-THREE (Tuesday, April 25)

1030 *McCLINTOCK*: The Seldovia Oil Recovery Team went on to Port Chatham to assist in the oil recovery.

XXXX *USNPS*: A ship at Aniakchak and two at Katmai continued shore work. The USCG deployed 35 fishing vessels out of Kodiak to spot and attempt to catch oil approaching Kodiak and Katmai.

XXXX *NRT/USCG*: Adverse weather conditions continued to hamper skimming. All WAK skimmers, except for Mister Clean II, attempted to get to Division Bay, Nuka Passage, to skim oil and mousse concentrated in that area. Approximately 15,000 feet of boom had arrived in Homer and was to be distributed as needed in that area by the MAC Group. A total of 58 vessels continued to be in operation, but 42 of these were now skimmers.

XXXX *USCG POLREP FIFTY-EIGHT*: Recovery estimated from skimming operations in PWS was 100 barrels and in WAK eight barrels. In PWS, skimming was conducted in Northwest Bay, Eshamy Bay, Main Bay, lower Knight Island Passage, Latouche Passage, south of Point Helen area, and between Smith and Eleanor Islands. In WAK, all skimmers secured operations and remained anchored in various sheltered positions of Port Dick and Nuka Bay due to adverse weather.

Beach cleanup  
XXXX *NRT/USCG*: Three hundred feet of shoreline had been cleaned in Northwest Bay by April 25.

Studies  
XXXX *USEPA*: The water-quality monitoring team found the western arm of Northwest Bay overwhelmed with cleanup crew and decided the area was too disturbed to sample. The eastern arm of the Bay was also viewed but the substrate was not correct for shellfish. The crew anchored for the night at Northwest Bay and were to look for another site in the morning.

Salvage  
XXXX *NRT/USCG*: Drilling of stopper holes continued on the EXXON VALDEZ. Booming of oil in tank No. 1C was in progress.

Day-to-day operations/management WAK  
XXXX *ADES*: The ADES representative left Kodiak to monitor the situation from Wasilla. The Kodiak DAC completed its final day, giving a three-day total of 44 walk-ins.

Communications  
XXXX *NRT/USCG*: The JCC was operational. Phone-patch capability of the system allowed total interconnections among all deployed units whether ashore or afloat.

Air operations  
0600 *USCG POLREP FIFTY-FOUR*: FAA revisions to existing air-space rules for PWS, Valdez Arm, and Port Valdez were scheduled to be activated.

XXXX *NOAA*: To protect the spring migration of otters and waterfowl, FAA and the USCG were restricting air space in the Copper River Delta area, as well as the Montague shoreline and upper Kachemak Bay, from April 25 to May 15.

DAY THIRTY-THREE (Tuesday, April 25)

Costs  
XXXX

*USCG POLREP FIFTY-EIGHT:* 311(k) expenditures reached \$14,906,153, payable to the fund by the spiller.

Damage assessment

XXXX

*USFWS:* An informal meeting of the CERCLA Trustees Council and USFWS staff was held in Juneau April 24-25. The Trustees were four: USDA (Forest Service lands), State of Alaska (fishes/terrestrial animals/beaches/water), USDOC (whales/seals/sea lions), USDOJ (migratory birds/sea otters/National Wildlife Refuge lands).

XXXX

*ADEC:* ADEC's Division of Environmental Health met in Seattle with the Federal Food and Drug Administration (FDA) USNMFS to discuss and agree upon the respective responsibilities of these agencies in the fish inspection program in impacted areas. ADEC was designated as lead agency; NMFS was to inspect processing operations beyond the three-mile limit.

ADEC also met with processors in Seattle to explain the inspection program.

XXXX

*ADN:* State AG Baily wrote to Exxon asking the company to ante up a \$14 million down payment on the civil penalties the AG said would likely be imposed on the company because of the oil spill. Baily said state law called for fines ranging from \$1 to \$10 per gallon of spilled oil, with a credit for recovered oil. Baily's calculations used \$2.50 a gallon for the 10 million gallons estimated spilled. In his letter, Baily said that paying the downpayment now would signal Exxon's seriousness about accepting responsibility for the spill and would save them some interest costs down the road.

XXXX

*USEPA:* The Natural Resources Trustees wound up their two-day meeting in Juneau.

Wildlife  
XXXX

*USFWS:* The Kenai Peninsula Borough mayor announced he would use part of the \$2 million given to the Borough by Exxon to build a full-care otter facility at Homer. Animals there were currently airlifted to Seward or Valdez.

Exxon also agreed to provide logistic support in collecting oil-killed birds from the Seward area to prevent eagles and bears from scavenging.

USFWS's workforce numbered 38 on response and assessment: seven in Valdez, six in Homer, six in Kodiak, and the rest on boats in survey or rescue work.

The total dead birds at all centers numbered 4,365 and dead otters 466.

DAY THIRTY-THREE (*Tuesday, April 25*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

WEDNESDAY, APRIL 26, 1989  
DAY THIRTY-FOUR

## Approximate Alaska Local Time

### Operations oversight/review

1330 *USEPA:* The ARRT agreed that shoreline-cleaning decisions could be made on site as long as they were within the guidelines. Other topics of the ARRT were the status of cleanup operations, vessel deployment, and the movement of the oil.

XXXX *NRT/USCG:* A multi-agency monitoring program was established to ensure that all shoreline segments would be cleaned in the presence of a federal and a state monitor.

XXXX *ADEC:* Exxon advised it anticipated fielding 44 cleanup crews. ADEC was developing an action plan to monitor and evaluate Exxon's initial cleaning phase of shorelines in PWS, addressing optimum removal of oil from heavily oiled segments of shoreline before inclement fall or winter weather. This program was developed in coordination with USGS, USFS, USFWS, and ADFG.

### Washington review

XXXX *USNPS:* Senator Stevens visited the Seward MAC Group.

XXXX *ADES:* U.S. Sen. Conrad Burns from Montana visited Cordova along with aides to Alaska Senator Murkowski. While newly elected to the Senate, Burns served on three committees affecting Alaska residents: Energy and Natural Resources, Commerce and Transportation, and Small Business Administration. In Alaska for hearings on the Tongass National Forest, Burns said he wanted to "take a look first hand" at the oil spill.

### Oil tracking

XXXX *USNPS:* Oil was found in Kashvik Bay, southernmost bay in Katmai National Park. Oiled gulls were observed. Oil spots were every four to five feet from the waterline to high-tide mark along two and one-half miles of beach.  
Weather grounded air operations out of Seward.

XXXX *ADN:* Low clouds and heavy snow had grounded aircraft in Valdez since Sunday.

XXXX *ADEC:* Seward - Sheen moved closer to Seward. Areas east appeared clean. In Latouche Passage, streamers of very light sheen were noted in the areas where the surface of the water was changing. Observers on the overflight noted this characteristic in similar waters with distinct sheen and mousse balls farther north towards Sawmill Bay. They extrapolated and concluded that the sheen extended out into the GOA.

### Oil recovery/defenses

XXXX *ADEC:* The boom at Eshamy Lagoon was repaired. In the most recent observations, oil was not spotted inside the boomed area.

XXXX *USNPS:* The ACOE dredge had success along the Aialik Peninsula, off the coast of KFNP.

DAY THIRTY-FOUR (Wednesday, April 26)

XXXX *NRT/USCG*: Cleanup operations in western GOA continued to be hindered by adverse weather. Due to debris-laden, weathered condition of recovered oil, offloading in both western GOA and PWS was slow and difficult. Various super-suction devices had been tried with limited success. The operation was enhanced by heating the oil with steam coils, but it took two to two and one-half hours to heat approximately 32 barrels.

Fifty-eight vessels remained in the cleanup operation: 42 were skimmers.

XXXX *USCG POLREP FIFTY-EIGHT*: The USNOAA vessel *Rainier* was reassigned to PWS to bottom survey in support of USS *Juneau* anchorages.

Redistribution of boom utilized by vessels and new tactics with boom were occurring in order to increase opportunities for the collection of oil. The USCGC *Morgenthau* was to redistribute larger sections of boom among larger fishing vessels. Various modifications were being made on other CG cutters to affect the way boom was deployed.

An attempt was being made to rig boom on the ACOE dredge *Essayons* to make oil recovery operations simpler. Fishing vessels with oil in booms would maneuver ahead of the *Essayons* and release oil from their booms so it could be collected in the *Essayon's* boom and concentrated in the area of its suction head. Oil snares attached to float lines were deployed in tidal flats at upper end of Resurrection Bay.

Offloading heavy oil mixed with seaweed, kelp, and debris in both PWS and WAK was slow and difficult. All pumping systems used were very slow. The "Super Vac" (vane-driven air mover designed to move grain and modified for this operation), "Super Sucker" (high-volume air conveyor), "Hydevac" (air mover used in moving fish), Archimedes screw-driven pumps (included GT-185s, Desmi 250s, Desmi 250As), and the "Vac-All" (both trucks and portable units similar to "Super Sucker" but lower volume) all worked, but not at high volume due to the debris mixed in with the oil.

Exxon had employed mud pumps and gear pumps and had used cutting tools in an attempt to alleviate the pumping problems without much effect on speed of removal from the sumps of skimmers. The operation was enhanced by heating the mixture with steam (steam boilers with spiral coils in conjunction with a CCN 153 pump). However, it took two to two and one-half hours to heat a full 32-barrel load of oily debris recovered by a Class V MARCO skimmer.

XXXX *ADES*: Seward was to try Exxon's new methods for picking up strings of mousse and tarballs -- an experimental absorbent blanket wrapped around sausage booms and dragged behind a boat, and snares to be tied to a line that was capable of holding up to 60 pounds of debris.

Out of Seward, oil corralling operations continued in the area of the mouth of Resurrection Bay. Two booms in the area of Agnes Cove contained oiled debris.

XXXX *USCG POLREP FIFTY-NINE*: Skimmer operations recovered 752 barrels in PWS and 23.8 in WAK. The number of monitors increased to 16 with seven aboard the USCGC *Rush* and three aboard the M/V *Aurora*.

In the WAK area, the USCGC *Morgenthau* divided responsibility for secondary supervision of resources among the Cutters *Storis* and *Yocona* but retained overall control of both skimming operations. The *Storis* was to monitor resources in Nuka Bay/Nuka Passage/Port Dick including Mr. Clean II, USN skimmers, and fishing vessels. The *Yocona* was to monitor Chugach Islands area including the Vaydaghubsky.

XXXX *USFWS:* The start of cleanup on Applegate Rocks, which was to have begun today, was delayed because of bad weather. The target completion date was still April 30.

Fish hatcheries/wild-stock areas

XXXX *ADES:* Releases of salmon fry continued at the Esther Island Hatchery and was also in progress at the AFK hatchery in Sawmill Bay. Boom systems were holding well at both hatcheries, although oil was observed against the outermost deflection boom at Sawmill Bay. Release of sockeye smolts being raised at the Main Bay Hatchery was not anticipated until May 15.

XXXX *USEPA:* At the Science Committee meeting, ADFG and USNMFS representatives voiced concern over the use of dispersants on beaches adjacent to anadromous fishery streams

Beach cleanup

XXXX *HORTON:* An Exxon press release said deployment of shoreline crews to clean PWS was proceeding more rapidly than planned.

Beach surveys

XXXX *McCLINTOCK:* VECO came to Larsen Bay, a fishing village of about 170 people on the west side of Kodiak Island, with six skiffs and 12 workers from outside of the community to conduct beach surveys. Four boats were sent out to conduct reconnaissance surveys on the Shelikof side, while two boats were sent to conduct surveys in Uyak Bay.

No oil had yet hit the community which was fortunate as it had no cleanup equipment.

Studies

XXXX *USEPA:* Water-quality sampling on Block Island, another area considered to be heavily oiled, was successful and by nightfall the USEPA assessment team had returned to Valdez.

Salvage

XXXX *NRT/USCG:* Tank cleaning and repair activities on the EXXON VALDEZ continued.

XXXX *ADEC:* Salvage work on the EXXON VALDEZ continued. ADEC had a vessel positioned near the tanker to do water sampling in order to determine the sources of oil sheens that became visible from time to time. No oil, other than a light sheen rising from diving activities, was observed from the tanker.

1730 *NRT/USCG:* CAPT Calhoun, USCG, commander of the MSO, Portland, Ore., arrived on scene to survey the EXXON VALDEZ condition and damage.

XXXX *USCG POLREP FIFTY-NINE:* Salvage operations continued on the EXXON VALDEZ. Divers continued to drill crack-stopper holes. Tanks Nos. 1C and 2C and forepeak were ready for stripping. Helicopter operations to the vessel resumed.

Day-to-day operations/management

XXXX *ADEC:* ADEC refined its organization as follows: management services (spill tracking and data management, accounting and controls, office management, personnel, procurement/logistics), public information, response command (logistics, operations, PWSDO, community operation, science (water quality, damage

DAY THIRTY-FOUR (Wednesday, April 26)

assessment), surveillance, technical support, documentation, shoreline (shoreline survey, shoreline cleanup)].

Day-to-day operations/management, local

XXXX

ADES: A USBLM ICT of eight was due in Homer to assist the Kenai Peninsula Borough and Alaska state agencies with projects undertaken with the \$2 million Exxon grant.

Communications/vessel tracking

XXXX

ADES: The Joint Communications Center published a new organization/operations chart. The JCC had contact with all frequencies and now handled USCG oil-spill related traffic. Separate communications operations included the USCG Communications Center (non oil-spill related traffic), ADEC Dispatch (state Division of Forestry VHF radio system to/from ADEC field personnel), Exxon Dispatch (Exxon UHF to/from field coordination point to/from vessels, skiffs, ground, and crews on marine VHF and Exxon UHF; FCP), Seward Communications Center and Homer Communications Center. The three emergency/alternate systems were HF SSB 2509, USFS VHF, and URC-110 satellite system.

XXXX

USCG POLREP FIFTY-EIGHT: Communications capabilities continued to be increased at the JCC. The FOSC established a full-time watch position at the JCC. Equipment was to be delivered to add Kodiak to the satellite net. The USS Juneau sailed with OSCAR aboard.

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ADN: At Elmendorf AFB, a computer designed to help war-time military commanders deploy troops, aircraft, and armor on the battlefield was being enlisted to assist Exxon and state and federal agencies in the war against oil. It was one of the results of President Bush's decision to employ the military in the cleanup.

The so-called Oil Spill Computer Automation Reporting System, also known as OSCAR, was being billed as a tool to efficiently manage the spill operation. When fully operational, any user was to be able to pull up on OSCAR the latest reports of spreading oil and its cleanup.

Military and Exxon computer programmers had spent the last few weeks plugging in the location of environmentally sensitive areas, bird rookeries, hatcheries, monitoring stations, and oiled beaches. They planned now to enter the location of skimmers, fishing boats, and cleanup crews. Some time in the future, they hoped, the system would be able to tell them, instantaneously, how to most efficiently deploy workers and equipment throughout the Sound.

The Alaskan Air Command was already using the system to give morning briefings to its commander, LT GEN McNerny, coordinator of the Joint Forces efforts in the cleanup.

ADEC and Exxon officials were concerned about the accuracy and completeness of the information going into the computer. The quality of that information would determine OSCAR's effectiveness at any given time.

Every agency involved in the cleanup had had a difficult time tracking the dozens of skimmers and fishing boats wending their way among the islands and bays of PWS and the coast of the Kenai Peninsula. Exxon today reportedly had 465 vessels and 2,144 workers in the field.

"How do you keep track of it all," asked ADEC's on-scene coordinator, Lamoreaux. The radio reports were jamming the airwaves, he said.

Visitors

XXXX

USNPS: Visitation to KFNH headquarters was above average.

DAY THIRTY-FOUR (Wednesday, April 26)



Costs

XXXX *USCG POLREP FIFTY-NINE*: 311(k) expenditures increased to \$15,335,854.

Damage assessment

XXXX *ADES*: USFDA and USNMFS were developing methodology to test commercially caught halibut for oil contamination. The FDA had not been requested at this time to provide assistance in subsistence food areas. The Subsistence Division of ADFG was taking the lead in developing a program to work with and advise subsistence communities. Physicians from the Alaska Native Medical Health Center were taking the lead for advising villages of Tatitlek and Chenequa Bay regarding potential health problems.

XXXX *USEPA*: USDOJ established a cost recovery and liability group. Agencies were asked not to enter into side agreements with Exxon so as not to compromise claims.

Wildlife

XXXX *EXXON*: 109 boats and 14 aircraft were involved in collection of wildlife which were brought to rehabilitation centers in Valdez, Seward, Homer and Kodiak.

XXXX *ADES*: Local efforts continued to establish an otter facility in Homer.

Alaska Legislature

XXXX *ADES*: Cordova City staff testified before the Alaska House Resources Committee. They recommended that oil spill-related legislation be deferred because the city was too busy to evaluate it this session.

DAY THIRTY-FOUR (*Wednesday, April 26*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

THURSDAY, APRIL 27, 1989

DAY THIRTY-FIVE

## Approximate Alaska Local Time

### Operations oversight/review

XXXX ADES: Harrison remained Exxon's OSC in Valdez.

XXXX ADES: Wuerpel, ADES's state coordinating officer, met with Ulyesse J. LeGrange, senior vice president for finance and administrative services, Exxon Company, U.S.A., Houston, Tex. LeGrange had been in Alaska for the last three weeks working on Exxon financial systems, including Exxon claims.

LeGrange agreed to Exxon corporate in-house staffing to address state/community/business/ individual issues of cleanup, commitment to post-recovery operations/reclamations of the areas used as staging points for oil spill response, and improved direct communications from the company with Alaskans. Further meetings were scheduled with FOSC VADM Robbins and Exxon leadership.

XXXX ADES: The panel at a public meeting in Cordova included Exxon's LeGrange; FOSC VADM Robbins; ADEC Commissioner Kelso; Don Moore, Cordova city manager; and representatives from PWSAC, CDFU, and others.

### Washington review

XXXX GOV'S OFFICE: Governor Cowper of Alaska designated Alaska Power Authority (APA) head Bob LeResche to represent the state before NTSB hearings scheduled for May 16-19 in Anchorage. LeResche was to conduct the state's questioning of witnesses and speak on behalf of the state.

Since shortly after the spill, Alaska's representative on the NTSB investigative team had been Capt. Kelly Mitchell, port captain with the State of Alaska. Mitchell was to continue to serve as a technical advisor.

### Oil tracking

XXXX ADES: Overflights conducted out of Seward the last few days revealed no new floating oil east of Cape Resurrection on inside Resurrection Bay. From Seward to East Cape Puget, very light spotty sheen was observed. From Seward out to Granite Cape, some light sheen mixed with debris was seen and small amounts of moussé were noted in Agnes Cove, Pony Cove, and Bear Glacier area.

XXXX ADEC: PWS - On the morning overflight, the PWS surveillance crew observed oil sheens through Knight Island Passage, Port Nellie Juan, Wells Passage, Whale Bay, and Knight Passage. They observed various colored sheens northwest of Perry Island and south of the island. Oil sheens floated at the mouth of Port Nellie Juan, on the north and south coast of Main Bay, the mouth of Eshamy Bay, and at Chenega Point. Knight Island contained the heaviest concentrations of floating oil. Herring Bay contained about 30 percent coverage, Northwest Bay about 40 percent coverage.

The afternoon flight revealed medium sheens and streamers in the Eleanor Island-Upper Passage Area, sheens along the eastern coast of Point Evans, and light oil coverage along the shoreline of Bainbridge Passage. Stringers were prevalent throughout the Seal Island and Smith Island areas. Offshore of the northern coast of

DAY THIRTY-FIVE (Thursday, April 27)

Smith Island, adjacent to shoreline cleanup activities, the surveillance crew noted the heaviest concentrations of oil; the oil from the beach did not appear to be contained.

XXXX *USNPS*: Reports from Katmai added additional detail about the oiling of Cape Douglas. Oil to a depth of two-four inches was in a 6,000 square foot area of beach. The beach team also found 108 dead murrelets on a small area of beach. Ships working Aniakchak and Katmai were to return to Homer in the next two days.

The USCG reported that 80 percent of the shoreline in Nuka Passage in Kenai Fjords was affected by oil.

#### Oil-spill numbers

XXXX *ADEC*: An independent gauging firm supplied ADEC with figures regarding the amount of oil originally spilled by the EXXON VALDEZ. According to the firm, 261,086 barrels (10,965,612 gallons) were lost from the tanker's gross standard volume of 1,263,018 barrels.

XXXX *ADN*: The *Anchorage Daily News* discussed the quality of numbers with regard to the oil spill. It said, for one, the initial estimate of the spill was 11.3 million gallons. Exxon had revised that figure to 10.1 million. Now the state had gone back to the 11.3 million figure.

Recently, an Exxon vice president said that 70 percent of the oil spilled by the EXXON VALDEZ had evaporated. The source of this figure was computer modeling. However, scientists who had tested ANS crude in a wave tank in 1984 concluded that the break up of that oil was too complex, even for sophisticated computers.

A USNOAA oceanographer, citing scientific literature, estimated that 40 percent had evaporated and otherwise been shed from the water's surface and that 20-30 percent might be on beaches. The rest was floating around and getting harder to find.

Figures on oil recovered also tended to be unreliable. As pointed out by ADEC's Lamoreaux, the oil picked up now was bonded with water and as much as 80 percent of each gallon collected could be water.

Another figure which Lamoreaux called attention to was Exxon's estimate of how much oil was burned in the one successful oil-burning test after the spill. Exxon had been claiming that 19,000 barrels had been burned. Instead, the figure was somewhere between 15,000 and 30,000 gallons.

#### Oil recovery

0800 *ADEC*: During the 24-hour period just ending, 752 barrels of oil were reported recovered from PWS and 24 barrels from the GOA.

XXXX *USCG POLREP SIXTY*: Skimming operations in PWS recovered 1,767 barrels while in WAK 38 barrels were recovered.

XXXX *ADES*: The USCG Cutter Rush was in Valdez receiving a transfer of personnel and was to return to PWS to provide support for USCG and USN helicopters and resume monitoring shoreline cleanup and vessel status. The Iris had assumed command, control, and communications for monitor teams while the Rush was in port and, after rendezvousing with the Rush for a transfer of personnel, was to go into Valdez itself for a logistics stop.

The Sweetbrier was underway at Eshamy Bay for boom monitoring activities. The Morgenthau was anchored one-half mile west of East Chugach Island next to the Vaydaghubsky which was performing skimming operations. The Morgenthau was to

return to Nuka Bay to join the Storis in coordinating skimmer operations with oil sightings from aircraft. The Planetree was underway for a logistical stop in Homer.

The Yocona was operating in Chugach Island in search of oil. It was to resume fishing vessel monitoring as directed by the Asst. FOSC WAK. Its next planned activity was to survey the area between Perl Island and Port Dick for concentrations of oil and then to conduct surveys of Rocky Bay, Windy Bay, Chugach Bay, and the area of East Chugach and Perl Islands.

The USS Juneau was anchored north of Smith Island where Exxon began its full-scale shoreline cleaning efforts this morning.

The ACOE dredge Yaquina was underway east of Eleanor Island searching for oil while the dredge Essayons was continuing oil spill operations in Taylor Bay. USNOAA's Rainier was on scene in Northwest Bay to survey anchorages for the Juneau.

XXXX **USFWS:** Exxon was arranging for front-end loaders and deck barges to be used in removing oiled debris, that could not be removed otherwise, from booms.

#### Beach cleanup

XXXX **ADEC:** With today's good weather, cleanup activity in all areas was back on track. ADEC staff observed the startup of shoreline cleanup on the north shore of Smith Island. Cold water flooding and flushing were primarily used. These techniques did not appear to readily remove the oil as it was well settled between the cobbles and boulder beach.

-- **USFWS:** Exxon deployed 400 employees on the northern shore of Smith Island for cleanup.

-- **USEPA:** The USS Juneau anchored off the east end of Smith Island to support cleanup efforts in the area. Representatives from ADEC and USEPA observed cleanup operations on Smith Island. Landing craft were grounded on the beach and had to wait for the tide before proceeding with setting the necessary boom. A hot-water pressure wash was to have been used but Exxon requested that its contractor use cold water instead.

#### Day-to-day operations/management

XXXX **ADES:** A state team with representatives from ADES, ADEC, ADOL, ADCRA, ADCED, ADFG, and ADHSS conducted a town meeting in Whittier. Main concerns of the audience were effects of oil on cleanup workers, pollution from burning oil booms, effects of spill on subsistence, lack of local hire, and the feeling of being left out of the mainstream.

ADCRA held an evening panel discussion in Cordova.

XXXX **ADES:** An earlier report the ADCED would be developing an economic assistance plan for communities affected by the spill was incorrect. Instead, it was an economic assessment.

The Division of Investments of ADCED announced that it would once again make loans on fishing permits in the PWS area. The division had temporarily suspended the issuance of new loans on such permits on March 30 because of difficulty in determining the value of permits after the March 24 oil spill. For lending purposes, the PWS permit was to be valued at 80 percent of the purchase price or 50 percent of the Commercial Fisheries Entry Commission appraised value, whichever was lower.

#### Communications

XXXX *ADEC:* A primary service of the JCC was placing phone patches to marine vessels. This traffic was expected to increase when the Reef Island Satellite Station was removed around April 28. ADES directed that Exxon operational patches should be placed through the Exxon Command Center while other agencies should utilize the JCC.

#### Costs

XXXX *ADES:* Daycare was a problem in Seward and elsewhere where workers from daycare facilities had joined the oil spill cleanup.  
Valdez Community Hospital was seeking services of an additional physician and lab technician to handle the medical demands created by the increased population of Valdez.

XXXX *ADN:* Exxon had not yet responded to the State of Alaska's week-old request for \$14 million to fund a tourism campaign. Meanwhile, tourism operations were affected. According to industry individuals, the state was experiencing hundreds of cancellations and slow bookings, not only in PWS but also in other parts of the state.  
The state's assistance proposal was put together by the Alaska Tourism Marketing Council and approved by the Governor.

#### Wildlife

XXXX *USFWS:* USFWS wrote Don Cornett of Exxon directing the company to develop a long-term eagle rehabilitation facility in Anchorage and a similar facility for other migratory birds in Seward as soon as possible.

Exxon and the City of Seward both signed a lease agreement for the otter facility at Seward. The modules were being moved on-site and the facility was to be functional in three days.

Exxon reported that the sea otter survival rate after cleanup increased if the otters were kept outside instead of inside.

A USCG helicopter investigated a report of three whales playing in oil mousse and found the "mousse" to be krill (the whale's food).

An overflight of marine mammal haulout areas which were oiled and located outside of PWS, organized by USNOAA, had been repeatedly postponed due to poor weather and unavailability of proper aircraft.

#### Conservation

XXXX *GOV'S OFFICE:* The Alaska Conservation Foundation established a national hotline on which callers could receive an updated report on public and private cleanup efforts and be automatically billed for a \$10 contribution to the Prince William Sound Cleanup Rehabilitation Fund. The Alaska Governor's Office, which announced the hotline, said the state itself was unable to accept donations. Persons specifically interested in supporting animal rescue efforts were referred to the rehabilitation centers in Valdez.

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

FRIDAY, APRIL 28, 1989

DAY THIRTY-SIX

## Approximate Alaska Local Time

XXXX ADEC: Daylight and two-tug escort transit restrictions still applied for loaded tankers. Empty tankers, however, were now being allowed to enter the Port of Valdez at night.

## Operations oversight/review

XXXX USEPA: Exxon scientist Maki made presentations at both the morning ISCC meeting and the evening Science Committee meeting concerning the company's proposed use of the dispersant Corexit 7664 for beach cleanup. At its afternoon session, the ISCC approved work on Green Island. The ISCC was concerned with Exxon's lack of cleanup efforts to date, particularly in regard to pupping and pinniped haulout areas, the poor ability of skimmers to recover free oil in PWS, the effects of various cleanup techniques on resources, and the proposed USEPA biodegradation study.

XXXX PWSCA/ADEC and ADN: Governor Cowper reacted to repeated statements by Exxon Chairman Rawl in newspapers, magazines, television, and, in particular, a story in *Fortune Magazine* this week that the State of Alaska delayed Exxon's cleanup efforts by refusing to approve the use of chemical dispersant in a timely manner. The Governor "FAXed" a letter of objection to the Exxon executive to "set the record straight."

In the letter, Governor Cowper pointed out that in the first few days following the spill, the slick was in the Zone One pre-approval area. "Dispersants were used several times during the early days of the spill, but these attempts simply did not work very well," he said.

When the state did receive a request for use of dispersants in Zone Three, the state acted within an hour to approve the test. However, no dispersants were applied. He said it was only after Exxon had trouble hitting the target, and instead sprayed the tanker and USCG personnel, that the state declined to approve the use of chemicals in the most sensitive areas.

Cowper went on to say that the state supported the use of dispersants in the right circumstances. Because dispersants do not remove oil from the water but distribute it to greater depths and increase the oil's toxic effects, the state reviewed the use of chemical dispersants in the actual conditions present. The governor also pointed out that under Exxon's recommended application rate of 20:1, about 500,000 gallons of dispersants would have been required to treat the spill. Less than 5,000 gallons were in Valdez the day of the spill and only 110,000 gallons were available six days later, he stated.

"I urge you to repudiate the inaccurate statements you and other Exxon officials have made regarding the state's action on dispersant use," the governor continued. "If your company decides instead to cling to its story, I think the public is entitled to see some proof," the governor said.

Rawl sent a letter back to the governor which did not repeat the charge that the state prohibited dispersants but did say that the state and the USCG were in discussions during the first three days on whether dispersants should be used. Rawl called it "regrettable" that the governor would go public on the matter without first discussing these questions directly with Exxon.

DAY THIRTY-SIX (Friday, April 28)

In his letter, Rawl said that the widely tested and used dispersants worked extremely well March 25 and effectively March 26. He also disputed the governor on the application ratio, availability of dispersants, and the claim that dispersants increased the oil's toxic effects. He said an average application was five to 10 gallons an acre. On March 25, the spill was estimated to cover about 2,500 acres. Thus, the 20,000 gallons of dispersants in inventory plus the 25,000 gallons that arrived on Sunday would have been adequate to contain the spill and significantly mitigate the impact of the oil on the shoreline. He also said California and other jurisdictions including Alaska would not have approved the use of Corexit 9527 if it increased the oil's toxic effects.

Washington review

XXXX *USNPS*: The U.S. Senate Energy Committee was to visit Kenai Fjords.

Oil tracking

XXXX *ADES*: Low ceilings made overflying difficult out of Valdez and Seward and impossible out of Homer and Kodiak. There had been no surveillance flights from Homer in four days.

Oil recovery/defenses

XXXX *USCG POLREP SIXTY*: Fifty-nine vessels were operating recovery or support activities. These included 42 skimmers, one MARCO support, six berthing/support, two boom-support, and eight barges. Three vacuum trucks were deployed on vessels.

XXXX *USEPA*: Cleanup efforts were slower due to storms and the weathering of oil and USEPA expected a further steady decline. Exxon was considering sending the small skimmers back to the cleanup cooperatives.

2100 *USCG*: The USCGC Morgenthau was released by the FOSC.

Fish hatcheries/wild-stock areas

XXXX *ADEC*: The boom at Eshamy Lagoon continued to need constant maintenance and occasional repairs to keep it serviceable. However, the effort to keep oil out of the sensitive hatchery areas remained successful.

Beach surveys

XXXX *ADEC*: ADEC had surveyed approximately 1,100 miles of shoreline. The data showed 314.4 miles of impacted shoreline in PWS and 85.6 miles in the GOA.

Beach cleanup

XXXX *ADES*: Cleanup operations resumed to a limited degree as weather conditions permitted.

Health and safety training sessions were continuing. To date 3,920 had been through sessions in Valdez, Cordova, Kodiak, Seward, Homer, Whittier, or elsewhere.

Day-to-day operations/management

XXXX *ADES*: An ICT from Colorado arrived in Homer to train Exxon representatives, implement projects which Exxon had not completed, and fill interagency gaps in communications, operations, finance, logistics, public affairs, etc. There was some concern that the EOC might not be properly staffed by the time the team left in two-three weeks.

This was the last day ADCRA representatives were at the Cordova, Seward, and Homer EOCs. Future support was to be through Valdez.

DAY THIRTY-SIX (Friday, April 28)



The Logistics Section set up a twice-daily courier route between agencies in Valdez.

The USCG Rescue Coordination Center in Juneau was contacted to discuss disaster planning and response and units available in PWS.

#### Communications/air operations

XXXX *USCG POLREP SIXTY:* The JCC shifted to a 24-hour watch schedule to support the increased level of activity on the beaches. Additional terminals were added to permit data access, one each at ADEC, USNOAA's center, and the USCG air operations office at the airport. The flight-following communications net was active with marginal coverage in the southern half of PWS. OSCAR's primary purpose continued to be in support of the operational units deployed in the recovery efforts. The USCGC Rush was providing temporary coverage until the fixed site became operational.

-- *ADES:* The aircraft flight-following system to remote aircraft transceivers at Knight Island and Naked Island was being installed. Equipment failure, mostly problems with new off-the-shelf equipment, had slowed deployment. The state had offered an air-to-ground radio to augment the system but it first had to be recrystallized. The system was, hopefully, to be operational in the next few days. Until implementation, the USCGC Rush was to continue to control airspace.

Local communications needs at Seward and Homer were addressed with HF, UHF-local, and marine-VHF systems in operation. Wide-area repeater coverage was still in the planning stages but was expected to proceed quickly when the weather allowed access.

#### Damage assessment

XXXX *ADEC:* ADEC reported that the state and federal cooperative fish-inspection program being initiated would ensure that no oil-contaminated product reached the marketplace.

#### Visitors

XXXX *ADES:* Fifteen members of a National Academy of Sciences committee spent the day in Cordova learning about the area and hearing concerns about the future impacts of the EXXON VALDEZ oil spill. The scientists, who represented both physical and social sciences, were serving as volunteers on a committee to review environmental study programs on outer-continental shelf leasing of the federal USBLM-MMS.

#### Miscellaneous

XXXX *ADN:* New York attorney Michael Chalos, who was working for EXXON VALDEZ Capt. Joseph Hazelwood, provided to the *Anchorage Daily News* an account of the events of March 24 that Chalos said were based on an automatic computer printout of the power settings on the vessel's engines around the time of the grounding and interviews with sources.

According to the Chalos version, Captain Hazelwood used the ship's engines, sometimes at full power, to hold the ship on the reef against the incoming tide to keep it from capsizing, not to "extract her off the shoal," as Hazelwood radioed to CDR McCall. Chalos's account also put the time of the grounding at 0016.

Chalos would not share his documentation and sources with the *Anchorage Daily News* during his interview so his accounting remained unverified.

DAY THIRTY-SIX (*Friday, April 28*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

SATURDAY, APRIL 29, 1989

DAY THIRTY-SEVEN

## Approximate Alaska Local Time

### Operations oversight/review

XXXX *USCG POLREP SIXTY ONE:* The assistant FOSC WAK awaited Exxon's action on efforts to conduct shoreline cleanup operations. The Exxon representative in Homer indicated equipment was being prepared for staging.

### Oil tracking

XXXX *ADEC:* Surveillance overflights continued out of Valdez and Seward.

### Oil recovery/defenses

XXXX *USCG POLREP SIXTY-TWO:* Approximately 472 barrels were recovered in skimming operations in PWS. In GOA operations, the total oil recovered to date by the Vaydaghubsky was approximately 1,500 barrels, by the ACOE dredge Essayons approximately 1,608 barrels, and by the ACOE dredge Yaquina approximately 963 barrels.

XXXX *ADES:* The Soviet skimmer Vaydaghubsky was off Kodiak in the vicinity of Shelikof Strait to work tarballs and patches. The vessel had an auxiliary boat to tend boom. Over 900 barrels was recovered today by the skimmer in the heavy concentration of oil in Kukak Bay.

Oil Recovered today: PWS, 472 barrels; GOA, 84 barrels. Vessels deployed: 454. Skimmers deployed: PWS, 31; GOA, 16. Boom deployed: PWS, 220,000 feet; GOA, 144,000 feet. Boom available: 128,000 feet. Aircraft deployed: 27.

XXXX *ADEC:* M/V Aurora personnel wanted to know what to do with containment boom that had been used in cleanup operations. It appeared to be of mixed ownership, including ADEC, VRCA (???), and Exxon. The Aurora also requested an early morning overflight from 0630-0700 to identify oil for recovery operations.

### Beach surveys

XXXX *ADEC:* Good weather facilitated shoreline surveys. Teams were out in the southwestern portion of PWS, mainly along the Montague and Evans Islands area, and in Kodiak on three of the Barren Islands.

### Beach cleanup

XXXX *ADEC:* ADEC staff observed shoreline cleanup operations on Seal and Smith Islands. On Seal Island, only cold-water flooding and flushing was used, while Smith Island had a large operation with a crew from the USS Juneau utilizing both cold and warm water. A general consensus was developing in the Multi-Agency Quality-Assessment and Quality-Control Groups that there was a definite need to expand cleanup methods and develop and field-test new and more aggressive cleanup techniques on heavily oiled areas.

XXXX *USCG POLREP SIXTY-ONE:* USCG monitors reported 150 yards cleaned in haulout areas on heavily impacted Smith Island with the first hot-water wash using 213 shore workers and eight LCV platforms. The FOSC was on-scene and authorized 180-

DAY THIRTY-SEVEN (Saturday, April 29)

degree water on this heavily oiled section. Seven more work days were estimated to complete this segment of shoreline which had to be finished before pinniped pupping occurred in mid-May.

In addition to eight cleanup teams on Smith Island, Exxon mobilized eight more teams with six LCV platforms and one maxi-barge on Seal Rock, another haulout area. Removing heavy concentrations from northeast Seal Island would remove the threat of re-oiling shorelines to the southwest.

Green Island was to be cleaned after Seal Island or during foul weather. Warm-water wash could not be used on South Applegate Rocks due to residual swells from the storm.

XXXX *ADES:* Shoreline cleaned today: PWS, 200 yards. Shoreline operations: PWS, 14 LCVs, 1 barge, 8 support vessels, 4 berthing vessels. The USS Juneau deployed 310 personnel who worked shoreline.

XXXX *ADN:* In Seward, VECO, Exxon's contractor, put about 100 cleanup workers on a rotating schedule that required them to work one week with pay and take the next week off without pay. VECO also said it would no longer pay for standby workers and would require renegotiation of all its contracts to rent skiffs, Zodiacs, and other small craft at the Seward dock.

#### Studies

XXXX *USEPA:* A USEPA team assembled from around the country arrived in Valdez to begin bioremediation experiments on beaches that had been "cleaned."

#### Day-to-day operations/management

XXXX *ADES:* Dr. Donald Hudson of Anchorage became the medical director for the emergency medical system being developed in PWS. Dr. Hudson intended to establish a clinic aboard a vessel in PWS.

A lease was secured on land across the street from the Valdez EOC for future temporary state-agency office space. ATCO trailers were to be placed on the property for office space.

#### Communications

XXXX *USCG POLREP SIXTY-ONE:* Three hundred vessels were being tracked by the OSCAR communications system. The workload at the JCC had increased significantly since adding the PWS remote sites. Watchstanders included three USCG radiomen, two Exxon personnel, and three from the state.

#### Costs

XXXX *USCG POLREP SIXTY-ONE:* Amount payable by Exxon to the 311(k) fund increased to \$16,926,441.

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

SUNDAY, APRIL 30, 1989

DAY THIRTY-EIGHT

## Approximate Alaska Local Time

### Operations oversight/review

XXXX *USCG POLREP SIXTY-TWO*: The Exxon representative in Homer provided the Asst. FOSC WAK with the equipment mobilization for beginning shoreline cleanup in that area.

XXXX *USEPA*: The issue of "how clean is clean" continued to be discussed by the ISCC. Exxon indicated that its shoreline cleanup assessment teams were already noting natural cleansing. Exxon proposed that such areas be skipped in order to concentrate on heavily oiled shorelines.

The shoreline cleanup monitoring plan was in its fifth draft.

1630 *USCG POLREP SIXTY-TWO*: The FOSC attended a briefing by the USCG and representatives from USEPA, USNOAA, USFWS, and USFS.

1900 *USCG POLREP SIXTY-TWO*: The FOSC attended an evening meeting with Exxon and agency representatives.

### Oil tracking

XXXX *ADEC*: The oil had hit Afognak Island. Its farthest reach, as confirmed by visual observations from today's overflights, was now 280 miles southwest of Bligh Reef.

### Oil tracking, PWS

XXXX *USCG POLREP SIXTY-TWO*: Overflight in PWS observed skimmable amounts of sheen and isolated patches of mousse in Northwest Bay, Upper and Lower Passages, Herring Bay, and Snug Harbor. Some minor sheening was sighted from shorelines along Port Wells, Cochrane Bay, and from middle area of Ross Island. Some sheen was seen in the vicinity of Grafton Island, Granite Bay, Junction Island, and north of Chenega Point.

XXXX *ADEC*: PWS - The morning overflight observed sheens south of Esther Island and east of Perry Island and at Applegate Island, Crafton Island, Granite Point, and Dangerous Passage. Sheens flanked Bainbridge Point and Knight Passage. Silver sheens were observed east of Knight Island from Squire Island to Herring Point. During a water landing northwest of Squirrel Island, sheens associated with kelp masses in Knight Island Passage were confirmed. Extensive sheens were located from Herring Bay to Point Eleanor. Dull sheens were floating south and east of Eleanor Island and surrounding Smith Island.

The afternoon overflight saw dark-colored heavy sheens off Smith Island and crews washing the beach. Numerous dull, brown, and silver sheens were observed between Smith Island and Seal Island. Oil sheens were floating between Latouche and Erlington Islands. Knight Passage, north of Evans and Latouche Islands, had silver sheens and kelp with sheens. Mummy and Squire Islands had sheens on all sides. The eastern coast of Knight Island had silver sheens from Hogan Bay north to Bay of Isles.

DAY THIRTY-EIGHT (Sunday, April 30)

Seward - The morning overflight saw heavy mousse in Agnes Cove, oil in Tonsina Bay and the Pye Islands, and sheens still coming out of Latouche Passage and Montague Strait.

Oil tracking, WAK

XXXX *USCG POLREP SIXTY-TWO*: No morning USCG overflight information was available for the WAK area of the spill.

XXXX *USCG WAK POLREP TWENTY-EIGHT*: WAK - All USCG aircraft were involved in search and rescue and the Exxon-chartered aircraft were grounded by weather. A transit of USCGC Planetree from Homer to Nuka Passage revealed some spots of mousse and sheen in Chugach Passage being worked by fishing vessels but no other oil located. Seward area overflight showed some sheens and mousse around Pye Islands and McArthur Pass.

XXXX *ADEC*: Homer - The overflight saw mousse and tarballs in Kamishak Bay and down into Shelikof Strait.

Kodiak - The Kodiak overflight saw that oil had hit beaches along Kodiak Island from Cape Chiniak to Kachemak Bay. The surveillance crew saw many otters which seemed distressed.

XXXX *ADES*: Homer - USNOAA overflights showed a significant decrease in oil in the bays and around the Chugach Islands on the southern tip of the Kenai Peninsula. The bulk appeared to have moved across and was hovering north of Shelikof Straits off of Cape Douglas and passing down through the Straits. No new oil was seen moving out of Montague Straits. Gore Point continued to hold heavy concentration of oil which was difficult to recover due to heavy surf.

Fish hatchery/wild-stock area booming

XXXX *USCG POLREP SIXTY-TWO*: Overflight of PWS showed areas were still boomed-off around hatcheries on Esther Island, Eshamy, McClure, Main, and Sawmill Bays.

XXXX *ADES*: Hatchery Boom: Sawmill Bay - Outside triple deflection boom was continually tended. Two main containment booms were in place in the Bay, followed by internal containment boom and hatchery protection booms. Internal booms were free of oil.

Esther - Secured and protected by double outside boom, followed by triple boom in front of the hatchery. No oil present; boom protection was satisfactory.

Main Bay - Outside deflection boom and two inside containment booms were intact. Containment boom protected hatchery; inside area was free of oil.

Eshamy Bay - Both deflection booms as well as outside containment boom were intact.

McClure Bay - Main containment boom and hatchery protection boom effectively protected the bay. No oil was present in hatchery.

Oil recovery/defenses

XXXX *ADEC*: The morning overflight of Seward revealed approximately 15 boats and a barge with the "Super Sucker" aboard in Agnes Cove. A lot of the heavier mousse in Agnes Cove had been encircled with boom and was ready to be picked up. Boats were also in Nuka Passage, Gore Point, and Tonsina Bay. The oil in Tonsina Bay and the Pye Islands was not recoverable with the skimmers in the area. The USCGC Storis

requested assistance from Seward Command to obtain shovels, drums, and buckets to pick up the non-skimmable mousse.

The Kodiak overflight observed the Soviet skimmer working in the area near Kinak Bay.

XXXX *USCG POLREP SIXTY-TWO:* Residual patches of mousse sighted in the areas of Port Dick/Nuka Bay/Nuka Passage and Tonsina Bay had to be removed manually by grabbing with shovels and buckets as conventional skimming did not work. Skimming by the Vaydaghubsky continued to be productive in Shelikof Strait. Plans were to divert the ACOE dredges to Shelikof Strait to assist in removing the mousse and oil corralled by fishing vessels towing booms in the vicinity of the Soviet skimmer.

XXXX *ADES:* Homer - Oil recovery remained concentrated in areas of Nuka Island, Gore Point, Point Dick, and the Chugach Islands. Now that oil had been driven ashore, the focus had changed from surface skimming to corraling.

Seldovia - Skimming operations mounted this week from Seldovia were successful using shovels, buckets, and skiffs towing boom. Oil thus contained was subsequently sucked up by fish pumps on accompanying skiffs.

XXXX *USCG WAK POLREP TWENTY-EIGHT:* The Vaydaghubsky recovered an estimated 1,261 barrels after working all night. A tugboat arrived this morning to begin rigging long boom to increase the recovery swath.

#### Vessel deployment summaries

XXXX *ADES:* 454 vessels total deployed: six tank barges (total capacity 175,000 barrels), two support barges, eight berthing vessels, 14 tugs, 11 LCMs, 15 LCA/LCVs, 398 other vessels (20-feet to 195-feet). Enroute: Bering Trader (200 beds) USS McHenry (400 beds), two oil barges, one sectional barge.

-- *USCG:* The USS Fort McHenry was enroute to Valdez. ETA was May 4. The ship was carrying 10 LCM assault craft, two additional boat crews, 2,000 feet of oil containment boom, and one CH-46 helicopter.

XXXX *USCG WAK POLREP TWENTY-EIGHT:* In WAK, Exxon had 79 contract fishing vessels deployed. Of these, 38 were at Gore Point/Nuka Bay/Port Dick booming and providing skimmer, EMT, and supply support; seven at Port Graham/Flat Island in herring-net booming and collection operations; eight at Resurrection Bay tending 84-inch boom; 21 at Kodiak Island/Shuyak Island/Afognak Island/Shelikof Strait/Cape Douglas providing skimmer support, boom tending, carrying sorbent boom and nets to intercept any mousse or oil approaching critical areas, and tending boat-cleaning station; six at Shelikof Strait working with the Vaydaghubsky in deflection booming.

XXXX *ADES:* Zone Two - Two skimmers and Yaquina dredge were deployed to Upper Passage, three skimmers deployed to Herring Bay. Two Navy skimmers were reassigned to shoreline operation at Smith Island. Zone Three/Four - Barge moved to Mummy Bay for offload. Zone Five - Soviet skimmer repositioned to Shelikof Strait along with fishing vessel and the USCG Cutter Yocona.

XXXX *USCG:* USCGC Rush was in vicinity of Smith Bay monitoring shoreline cleanup and surveying vessel status with aircraft and the ship's boats as well as providing support for CG and USN helicopters. USCGC Sweetbrier was in vicinity of Smith Island to monitor shoreline cleanup. CGC Storis was conducting oil spill cleanup operations in

Morning Cove and surveying Windy Bay and Rock Bay for oil deposits. The CGC Yocona was diverted to search and rescue for an overturned fishing vessel. When done, it was to redirect to Shelikof Strait. The CGC Planetree operating in Nuka Passage.

ACOE dredge Yaquina was skimming an oil slick in vicinity of Smith Island. ACOE dredge Essayons continued oil spill operations in Nuka Passage. USNOAA research vessel Rainier was on scene at Northwest Bay to continue conducting surveys for potential anchor sites for the USS Juneau. The USS Juneau was anchored north of Smith Island where it was recovering oil from the skimmer. The USS Fort McHenry was enroute to Valdez, ETA May 4.

The Soviet skimmer Vaydaghubsky was working in Kukak Bay in Shelikof Strait. Two to three more days of work were anticipated at this location.

XXXX

*ADES:* Beach Cleanup Task Force One Vessel deployment: 10 LCVs, one maxi-barge, three berthing vessels were on station at north side of Green Island. State Ferry Columbia arrived Valdez to enter service as berthing vessel. In the morning, it was loading VECO cleaning crew and rigging communications and gear for deployment later today or tomorrow to Task Force One.

Task Force Two Vessel deployment: USS Juneau with 12 LCVs was on station at Smith Island. New water washing vessel, LCV-15, was enroute to Smith Island.

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*USCG POLREP SIXTY-TWO:* In PWS, two Navy MARCO V skimmers were on scene for beach cleanup on Smith and Seal Islands to recover amounts washed back into water. The USCG Cutter Rush was command vessel for Seal Island, Green Island, and Applegate Rocks. The Cutter Sweetbrier was command vessel for Smith and Little Smith Islands. A U.S. Marine Corps contingent on the USS Juneau provided survey work for Exxon to find and lay-out route for cleaning vessels to approach Applegate Rocks.

XXXX

*USFWS:* A deck barge sank in Montague Strait, southwest of Montague Island. Approximately 40,000 gallons of fuel, gas and diesel, were aboard. No information received about whether the fuel escaped.

USDOD assets summary

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*USCG POLREP SIXTY-TWO:* U.S. Army assets included two CH-47s and three UH-60s at Fort Richardson, two UH-1Vs at Elmendorf, one OH-58 at Homer, three KY-57s on the USS Juneau, the recreation camp at Seward, and three air traffic controllers in Valdez.

U.S. Air Force assets included four HH-3s, eight C-130s, and three C-12s at Elmendorf; nine A/E decontamination apparatus at Valdez; 11 URC-110s at Valdez; one K-10 loader at Kodiak; one set of furnishings at Valdez; and three air traffic controllers at Valdez.

U.S. Marine Corps assets included two CH-46s on the USS Juneau, one CH-46 on the USS Ft. McHenry, and eight inflatable boats on scene.

U.S. Navy assets included 20 MARCO Class V skimmers at PWS, two MARCO Class XI skimmers at PWS, nine LCM-6s on the Juneau, 11 boom vans, 10 tow boats, 20 mooring systems, two shop vans, two rigging vans, two cleaning vans, and one pollution pump system on-scene.

Aircraft deployment summary

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*ADES:* Twenty-seven total aircraft were deployed: one Aerostar spotter plane, 15 helicopters for spotting and observation (one enroute Kodiak, one enroute Homer), one King Air, two Beaver float planes, two Twin Otters (one float, one wheels), two

DAY THIRTY-EIGHT (Sunday, April 30)



Single Otter amphibians, one Conquest 441 Twin turbo-prop, one Sikorsky S-61, one Cessna Citation jet (standby), one Cessna Chief (standby).

#### Beach-cleanup

XXXX

**ADES:** Cleanup Task Force One - Objective was to clean pinniped haulout areas on Applegate Rocks and Seal Island. Cleanup crews had completed first pass on 800 linear feet (85-foot average width) of moderately oiled shoreline on northeast corner of Seal Island.

Task Force Two - Objective was to clean pinniped haulout areas on north shore of Smith Island. Cleanup crews had completed one-two passes on 400 linear feet (60-foot average width) of heavily oiled beach.

-- **USFWS:** Strong seas cleaned a large quantity of oil off Applegate Rocks; however, Exxon crews discovered heavy oil still in rocky crevices. Northwest Bay was re-oiled after cleanup as a result of a storm. Green Island was to be cleaned after Seal Island or during foul weather.

-- **USCG POLREP SIXTY-TWO:** In PWS, cleanup continued on Smith and Seal Islands. Several methods were employed to remove heavy deposits of oil from shoreline. Methods used included washing and flooding with warm water and hot water. Moderate-pressure water and steam cleaning were used on cobble areas of shoreline. Two Navy MARCO V skimmers were also on scene to recover amounts washed back into water. Estimated time to complete Seal Island was 10 days; to complete Smith Island five days.

-- **USCG:** Mousse was reported up to one foot thick on Smith Island beach.

-- **USEPA:** After observing cleaning operations at Seal and Smith Islands from the air, a representative from the Governor's Office walked the beach at Seal Island with one of the USEPA staff. Crews there were using a cold-water wash/flush technique. They had used a warm-water wash of about 100 degrees F, which they felt was more effective, but were limited in their capacity to heat water by the availability of heaters and fuel.

XXXX

**ADES:** Five ADEC field representatives were out evaluating alternatives to cold-water flushing.

-- **USFWS:** ADEC representatives in the field believed that more severe action was needed to clean the beaches as water originally heated to 480 degrees F. was discharged at the end of the hose onto the beach at only 140 degrees F.

#### Studies

XXXX

**USFWS:** Exxon said it might want to test *in-situ* burning of oil on heavily oiled beaches. Also, that an effort to enhance recolonization of beaches by fertilizing with nitrogen and phosphorus would begin as a demonstration project in about two weeks. USEPA stated it wanted all Exxon tests to be quantitative.

#### Aircraft operations

XXXX

**VALDEZ:** Valdez Airport ended the month with 8,417 total operations, an average of 281.6 operations per day. On only 11 days were there under 300 operations per day. The high of the month was 613 on April 1; the second high was 606 on April 6. The low was three on April 25; the second low was 55 on April 24. As the month ended, traffic was above average with 392 operations on April 29 and 345 on April 30.

DAY THIRTY-EIGHT (Sunday, April 30)

Salvage  
XXXX

*ADES:* On the EXXON VALDEZ, drilling continued to dead-end fractures. Skimming of holed tanks continued; approximately 2,500 barrels was gathered in the slop tank. Diver inspection of two center tanks revealed no free oil captured under structural members. Inspection was continuing for all holed tanks. Minimal sheens were noted in the area.

Day-to-day operations/management  
XXXX

*ADEC:* ADEC continued to refine its spill response organization and to add staff. Under the Commissioner was management services (spill tracking and data management, accounting and controls, office management, personnel, procurement/logistics), response command [public information, logistics, operations, PWSDO, technical support, documentation, science (damage assessment, water quality) community operations (Homer, Seward, Kodiak), surveillance, and shoreline team (survey, cleanup)].

XXXX

*ADES:* The Rocky-Mountain Interagency ICT, led by Bob Miller, had arrived Homer at the request of Governor Cowper. The team was working with agencies already in place to increase coordination and communication in response to needs evoked by the oil spill.

Costs  
XXXX

*USCG POLREP SIXTY-TWO:* Amount payable to the 311(k) fund by Exxon: \$17,349,528.

1200

*ADFG:* The pot shrimp fishery in the Outer District of the Lower Cook Inlet was closed at noon because of the presence of oil. (It did not reopen until noon on July 7.)

The groundfish fishery in the Outer and Eastern Districts of the Lower Cook Inlet was closed at noon because of oil. (It reopened to all species except sablefish June 12 in connection with the 24-hour halibut period. Sablefish was not reopened because the GOA sablefish quota had been filled.)

Smelt was closed along with groundfish in the Outer and Eastern districts at noon. (When groundfish reopened, smelt fishing remained closed.)

The Northern Area dungeness crab fishery of PWS closed at noon due to effects of the oil spill. It was scheduled to reopen on Jan. 1, 1990.

XXXX

*VALDEZ:* The Valdez Public Safety Department made 81 arrests in April 1989 vs. 15 in April 1988. There were 551 officer responses compared to 366, 88 traffic citations compared to 10, 1,245 overtime hours compared to 130, and 179 jail days compared to 121.

902 patients were seen in April 1989 at the Valdez health clinic compared to 642 in April 1988. Average daily highway traffic continued to increase. The 7,099 cars per day in April 1989 compared to 3,236 in March 1989 and 2,898 in April 1988.

The Valdez Small Boat Harbor provided 1,519 days of temporary boat quarantine in April 1989 compared to 287 in April 1988.

Wildlife  
XXXX

*USFWS:* The total of dead birds in freezer storage numbered 5,235 while otters numbered 539. 197 live birds and 65 live otters were currently at rehabilitation in Valdez, Seward, Homer, and Kodiak. USFWS was investigating a report that approximately 630 dead birds were burned on April 28 at Gore Point by a fishing vessel without authorization.

*[AOSC NOTE: According to the ADFG chronology, the number of dead animals must be understood in context. Because of the broad area covered by the spill, the rugged terrain, bad weather, and fast ocean currents, most dead animals would never be recovered. Dead animal bodies sink, are washed away by currents, are scavenged, or can be hidden in wooded areas where they have crawled away to die. Also, the appearance of oiled animals is inconspicuous; they are often indistinguishable from rocks. Thus, many will never be spotted, let alone recovered.]*

DAY THIRTY-EIGHT (*Sunday, April 30*)

# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

MONDAY, MAY 1, 1989

DAY THIRTY-NINE

## Approximate Alaska Local Time

### Operations oversight/review

0810 *USCG WAK POLREP TWENTY-NINE:* The Asst. FOSC WAK conducted a teleconference with command posts in Seward, Kodiak, and Homer. The boundary for shoreline-cleanup assessment affecting Homer and Kodiak was changed: Homer would now handle the Barren Islands.

XXXX *USEPA:* A brief workshop by Exxon on various cleanup techniques and equipment at the morning ISCC was well received although most of the equipment discussed was on order rather than available.

1400 *USCG POLREP SIXTY-TWO:* Exxon was scheduled to submit its shoreline scheduling plan to the FOSC.

1430 *USCG POLREP SIXTY-THREE:* Exxon presented its shoreline restoration-plan to VADM Robbins. It had the priorities of pinniped haulouts, heavily oiled, moderately oiled, and lightly oiled. Copies were "FAXed" to JTF, CAC (???), and MSO Anchorage.

-- *EXXON:* Exxon submitted a revised shoreline-cleanup plan incorporating new data on impacted shorelines. The plan called for cleanup of 364 miles of shoreline.  
(EXXON NOTE: The Coast Guard subsequently reviewed the May 1 plan and requested several changes, which Exxon made.)

-- *ADEC:* Exxon delivered to the USCG and ADEC a shoreline-restoration plan as well as a waste-management plan for oily waste in the oil spill area. The shoreline plan addressed areas impacted as of April 21, assumed a 30-foot average width for beaches to be cleaned, and generally assumed that three passes with cold-water flushing would be sufficient to clean beaches, except for warm-water flushing in limited areas. Areas impacted since April 21 remained to be addressed. A brief section addressed some new cleanup techniques, including adding small amounts of dispersants to water used for flushing beach areas.

-- *ADN:* Exxon submitted its cleanup proposal, filling out a sketch of beach cleanup ideas released two weeks ago with technical data, place names, and a time-line showing how fast the work should be completed. Exxon also addressed cleanup in the GOA, something omitted in its earlier plan. However, of the 86 miles of oiled shoreline in the GOA that Exxon added to its plan, it envisioned cleaning only 15.7 miles. On the rest, which Exxon called lightly-oiled, it said natural forces such as wave action would produce a better result than mechanical processes.

ADEC spill coordinator Lamoreaux said that it was probably reasonable to put lightly oiled beaches on the end of the priorities but unreasonable to write them off. If a lightly oiled beach can be made better, then it should be, Lamoreaux said.

Exxon's plan set the goal of cleaning three miles of shore by May 10 and 20 miles by June 1 on the beaches hardest hit, including those beaches it had already committed to cleaning by May 10.

DAY THIRTY-NINE (Monday, May 1)

The 191 miles of lightly oiled beaches that Exxon said it would work on, it scheduled for cleaning from August 1 to September 15, at a rate of more than four miles a day.

In addition to the shoreline listed, Exxon said it expected to add another 55 miles not yet surveyed, a potentially low figure according to State EOC Coordinator Wuerpel.

Exxon also proposed the testing of the dispersant chemical Corexit 7664 to help remove oil from beaches. Lamoreaux said he was not opposed to the test.

Exxon also presented a plan for dealing with the waste created by the oil spill. It proposed setting up a large floating incinerator and using smaller medical incinerators in Whittier and at the AMT in Valdez to burn oily rags, clothing, and 20 tons of dead animals. The USCG asked for other agencies to review the waste disposal plan and submit comments by noon Wednesday.

-- *USEPA: Exxon's waste-management plan, submitted with its shoreline-cleanup plan, proposed the use of three hospital incinerators: a unit at Whittier, one owned by Alyeska at Valdez, and a silo barge incinerator in Washington state. Another barge-mounted incinerator -- a rotary kiln unit, elsewhere in the United States -- was also available. All units had had difficulty meeting ADEC air quality standards.*

1630 *USCG POLREP SIXTY-THREE: The FOSC (VADM Robbins) departed Valdez for Elmendorf AFB.*

1730 *USCG POLREP SIXTY-THREE: VADM Robbins arrived Elmendorf AFB, Anchorage, for a briefing by the USCG and representatives from USEPA, USNOAA, USFWS, and USFS.*

-- *AOSC NOTE: According to a note attached to a press release from the FOSC, ADM Yost was in Anchorage this day though it was not announced.*

1900 *USCG POLREP SIXTY-THREE: VADM Robbins met with Exxon and agency representatives.*

#### Washington review

XXXX *USCG POLREP SIXTY-FOUR: USCG public affairs was coordinating advance planning for visits by Vice President Quayle and Secretary of Transportation Skinner on May 4. A meeting was held with a White House Advance Team, USN RADM Baker, and others. The CG was searching for heavily oiled shoreline accessible by helicopter for the visiting VIPs.*

#### Oil tracking

XXXX *USCG: PWS - Morning overflight of Bay of Isles, Eshamy Bay, Main Bay, and McClure Bay showed little to no sheen. Port Nellie Juan had a patch of heavy sheen at its entrance. The east sides of Perry Island and Lone Island had minor amounts of sheen visible. The vicinity of the EXXON VALDEZ looked clean. There were some light patches of sheen visible between Naked and Eleanor Islands.*

*WAK - A USCG C-130 overflight Friday had showed large patches of mousse/sheen in the Shelikof Strait. Sunday, the flight had observed three large fingers of mousse outside Kukak Bay. The current overflight by an Army helicopter from Homer showed small mousse patches in Tonsina Bay, Wildcat Pass near Nuka Passage, and Windy Bay. Some beach impact was reported on Pye Island, Yalik Point, and Gore Point. An overflight from Seward showed light sheen in Agnes Cove and McArthur Pass.*

DAY THIRTY-NINE (Monday, May 1)

XXXX *ADES:* WAK - Overflights confirmed the leading front of the oil spill as it related to the Kenai Peninsula remained in the vicinity of Flat Island. Puale Bay and Wide Bay on the Shelikof Strait were described as plugged with sheen and mousse. The major impact area of the spill appeared to be concentrated on the west coast of the Shelikof Strait, south of Cape Douglas. A finger of sheen and mousse 10-15 miles long was reported south of Augustine Island, with additional areas of sheen identified north of Augustine, as far north as Iniskin Bay. The Barren Islands were described as painted with oil on their windward (eastern) sides, to heights of five or six feet.

Although all agencies acknowledged the limitations of relying solely on aerial observation, to date no significant efforts had been made to address the possibility of submerged or subsurface oil in these waters.

XXXX *USFWS:* Staff from the Alaska Peninsula/Becharof National Wildlife Refuge were conducting extensive pre-spill surveys along the coastline (Chignik Lagoon, Kujulik Bay). They reported portions of the coast hit by oil sheen and mousse.

XXXX *ADFG:* Oil was found at Alinchak Bay, an area parallel with the south end of Kodiak Island and approximately 500 miles southwest of the spill at Bligh Reef.

#### Oil recovery/defenses

XXXX *USCG POLREP SIXTY-THREE:* The USCGC Rush had moved to the vicinity of Seal Island but was performing its same monitoring and support tasks. The Yocona was enroute to Kukak Bay, Shelikof Strait, where there was a major combined undertaking to recover heavy concentrations of oil. The Planetree was enroute to Shelikof Strait to perform boom towing operations. The Storis was now conducting oil spill cleanup operations in Gore point and continuing to survey the vicinity for oil deposits. The Sweetbrier was still performing cleanup monitoring and support in the vicinity of Smith Island.

The ACOE dredge Yaquina was enroute to Kukak Bay to perform boom towing operations. The NOAA ship Rainier was on scene the west side of Knight Island and would continue to survey for anchorages for the USS Juneau, a task scheduled to be completed in one more week. The Soviet skimmer was working in Shelikof Strait near Wide Bay. New equipment was brought by tug to extend the booms and increase skimming capacity dramatically.

XXXX *ADN:* Exxon announced that the Soviet skimmer would be sent back on May 11, although the vessel had recovered more oil from the ocean than any other skimmer, because Exxon was having trouble finding floating oil in thick enough concentrations to keep it working.

XXXX *USCG POLREP SIXTY-FOUR:* PWS - The mixture recovered in PWS was 20 percent oil, 80 percent popweed and water. The adjusted figure for oil recovered May 1 was 166 barrels of oil. Skimmers worked areas in Northwest Bay, Upper Passage, Lower Passage, Hogan Bay, and between Eleanor and Smith Islands.

WAK - No comparable figure on recovered oil was available for WAK where oily-water and debris mixture was recovered using small skimmers in near shore operations at Gore Point, Tonsina Bay, Kitten Pass, and Morning Cove. ACOE dredges Essayons and Yaquina found no oil vicinity of Kukak Bay in Shelikof Straits. The Vaydaghubsky found no oil in Wide Bay and was being redirected to Portage Bay. Productivity was limited by factors including high viscosity, debris, distances between oil patches, and low visibility that prevented aerial spotting of skimmers.

XXXX *USCG POLREP SIXTY-FIVE:* WAK - Approximately 200 barrels of mousse and debris was recovered using small skimmers in near shore operations at Chiswell Island, Tonsina Bay, Kitten Pass, and Morning Cove/Ragged Island. The mousse was very viscous, the consistency of pizza dough. The most notable concentration of contained mousse remaining to be recovered was at Wildcat Cove, Ragged Island. It was estimated that the M/V Westward with "Super Sucker" might be able to recover 2,000 barrels.

XXXX *McCLINTOCK:* Tarballs and mousse were spotted drifting into Larsen Bay. The community was concerned because requested cleanup equipment had not been received and their boats were not mobilized. The community rallied together and deployed what Kodiak-made boom was available with fishing vessels.

Beach cleanup

XXXX *USCG POLREP SIXTY-THREE:* The USS Juneau, anchored north of Smith Island, deployed 310 personnel who worked the shoreline.

Costs

XXXX *ADN:* Exxon and the state reached agreement for the company to fund a \$4 million public-relations campaign, vs. the \$14 million requested, for the Alaska tourism industry. The agreement gave the money to the Alaska Visitors Association, an industry trade group, that would finance through Bradley Advertising print and television ads in 10 major Alaska tourist markets in the Lower 48 as well as direct mail advertising to travel industry officials.

Damage assessment

XXXX *USEPA:* The Natural Resources Trustees Management Team met in Juneau to discuss damage assessment work.

Wildlife

XXXX *USFWS:* The otter cleanup facility did not open in Seward as originally scheduled. It's anticipated opening was now May 3. Otters at the Valdez cleaning center were being tested for a viral infection.



# T/V EXXON VALDEZ OIL SPILL CHRONOLOGY

TUESDAY, MAY 2, 1989  
DAY FORTY

## Approximate Alaska Local Time

### Operations versight/review

0830 *USEPA:* The ISCC discussed Exxon's shoreline-cleanup/restoration plan and approved Exxon's shoreline-cleanup assessment of Northwest Bay. Exxon was to pursue the disposal of oiled kelp in its waste management plan.

0900 *USCG POLREP SIXTY-FOUR:* USCG Commandant ADM Yost and FOSC VADM Robbins arrived Valdez after a half-hour flight from Elmendorf AFB in CG-1.

XXAM *USCG POLREP SIXTY-THREE:* The Asst. FOSC PWS (at that time CDR Rome) used the *POLREP* to enunciate the process for prioritizing shoreline cleanup. The Asst. FOSC PWS noted that, as we move into shoreline cleanup activities, there are a number of variable in describing how and when a particular shoreline will be cleaned. Continuing, he outlined the process which had evolved and which would assign cleanup priorities:

Shorelines were being prioritized according to amount of oiling (heavy, moderate or light), presence of biological or ecological resources (pinnipeds, fisheries, aquaculture), presence of social resources (historical or archaeological), possibility of reoiling a shoreline, and the type of shoreline.

A decision criteria which gave weighted value to each of these concerns resulted in the following general strategy for cleaning shorelines:

-- Priority 1. Pinniped haulouts at Agnes, Smith, Little Smith, Seal, and Green Islands, and Applegate Rocks where oil-sensitive pinnipeds (seal and sea lion pups) would be present soon after May 10, 1989.

-- Priority 2. Shorelines heavily contaminated with oil with biological resources present and social resources absent.

-- Priority 3. Shorelines moderately contaminated with oil with biological resources present and social resources absent.

-- Priority 4. Shorelines lightly oiled with biological resources present and social resources absent.

Special Zones - If social resources were found, they were to be treated as special cleanup zones and treated very carefully.

The Asst FOSC PWS also advised that there were a variety of shorelines present in PWS. Compositions ranged from small gravel through cobble to boulders; most were an aggregation and varied in length from tens of meters to hundreds of meters. Heavily oiled shorelines were inundated with oil from the beginning of the spill (like the pinniped haulouts) or were in semi-sheltered areas where storms did not scour out the oil. The latter were the most challenging, hard to get at and hard to clean.

Evaluations in terms of barrels of oil or feet of shoreline per day per work hour did not clearly measure or describe the cleaning process, he wrote. The process to clean these shorelines was normally flushing with warm or hot water during the period from one hour after slack low tide to one hour prior to slack high. Then, flush and recover from one hour after slack high tide (shoreline covered) to one hour prior to slack low tide. An entire shoreline needed to be flushed several times to turn it from heavily oiled to lightly oiled. He concluded that beach segments would be

DAY FORTY (Tuesday, May 2)

reported upon a determination by the FOSC that there would be no further federal involvement.

He said monitors reported improved cleaning using hot water (heater set to 180 degrees F.) on areas where no biological damage would result. His intention was to use those methods where possible and to use steam on sharp rock faces where no biological damage could occur. Improvements in mechanical recovery and vacuum systems were being investigated.

The number of monitors had now increased to 21.

-- *AOSC NOTE: In his discourse in USCG POLREP 63, CDR Rome made no mention of Exxon's shoreline-cleanup plan which the FOSC had received the day before. We have confirmed with CDR Rome that he was summarizing the current state of affairs and Exxon's plan had not been reviewed when these comments were issued.*

XXXX *USCG POLREP SIXTY-FOUR: Federal and state agencies began providing written comments to the FOSC on Exxon's shoreline-restoration plan. Requests for ADM Yost interviews and USCG comments on the shoreline-cleanup plan were to be addressed later in the week after the plan had been reviewed.*

-- *ADEC: ADEC Commissioner Kelso called Exxon's latest oil spill cleanup plan "a few pages of wishful thinking" that is "overly optimistic and fails to consider in any meaningful way affected areas outside Prince William Sound."*

Kelso said the plan, a revision to Exxon's April 15 shore-cleanup proposal, contained a number of major incorrect assumptions and underestimated the magnitude of the problem.

Kelso said the shoreline-cleanup plan was inadequate in the attention to beaches outside PWS and the number of water rinses required to clean the hardest-hit beaches, and that it underestimated the area affected on individual beaches. (Exxon's plan provided for only three water rinses to clean the hardest hit beaches.) Exxon's plan also assumed a 30-foot wide average beach width when, said Kelso, southcentral Alaska tides are among the highest in the world and the area of beaches affected was in excess of 30 feet.

Kelso was also critical of Exxon's proposal to leave lightly affected beaches to natural forces. He said the state would insist that Exxon focus on cleaning all affected beaches, no matter how hard hit.

The test should not be whether the oiling is heavy or light, the Commissioner said, but whether benefits to the environment exceeded the impacts of the cleaning activity. "Helping the recovery process is our goal and Exxon should do whatever is necessary to accomplish that," he said.

1100-1455 *USCG POLREP SIXTY-FOUR: ADM Yost and VADM Robbins departed Valdez in a USCG helicopter for a visit of the USS Juneau and subsequent inspection of shoreline cleanup operations on Smith Island before returning to Valdez.*

1530 *USCG POLREP SIXTY-FOUR: ADM Yost and VADM Robbins met with Exxon.*

1900 *USCG POLREP SIXTY-FOUR: VADM Robbins attended the Operations meeting.*

XXXX *USEPA: After the evening Operations meeting, USEPA's John Malek, a member of the ISCC, met with USCG CDR Ed Thompson to discuss how to improve coordination between the various players.*

DAY FORTY (Tuesday, May 2)

Washington review

XXXX *USCG POLREP SIXTY-FOUR*: In preparation for the VIP visits, 30 people flew to the USS Juneau and then went to Smith Island to view possible arrival sites for the visitors.

XXXX *USEPA*: The final draft of the *NRT Report to the President* was complete and being reviewed by USEPA, USDOT, and the White House.

Oil tracking

XXXX *USCG POLREP SIXTY-FOUR*: PWS - Heavy sheen with some recoverable amounts was sighted in Northwest Bay, Upper Passage, Lower Passage, Herring Bay, Snug Harbor, and areas between Eleanor and Smith Islands. Sheening along most heavily contaminated shoreline resulted from "bleeding" due to warmer temperatures and sunlight. Most sheening was in quantities not recoverable by skimmers.

WAK - Shelikof Strait overflight revealed five-mile long mousse/sheen patch of undetermined width at mouth of Portage Bay. A Seward sortie confirmed oil at Chiswell Islands and Pye Island. Homer sortie showed mousse/sheen in south-facing coves between Windy and Nuka Bays.

XXXX *ADES*: WAK - A composite of information gathered from ADEC, USNOAA, and the USCG, indicated that the mass of the EXXON VALDEZ oil spill at this time was making its way down the Shelikof Strait, heavily impacting the shoreline as it traveled. The leading front of this mass was reported at Wide Bay and points south. The leading front of the oil spill as it related to the Kenai Peninsula remained in the vicinity of Flat Island, the Chugach Islands, and the bays on the south of the peninsula. Most of the oil had been driven ashore in these locations, requiring that oil recovery operations shift away from mechanical to manual means, i.e., buckets and shovels. Long streamers of mousse continued to be observed in the vicinity of Nuka Bay and Nuka Passage.

XXXX *ADEC*: As observed visually from overflights this day, what remained of the slick covered an area of 3,311 square miles. Its farthest reach, which was on the eastern coast of the Alaska Peninsula, extended 470 miles southwest from Bligh Reef.

Oil recovery/defenses

XXXX *ADES*: WAK - Commercial boom was being deployed at Rocky and Nuka Bays and was designated for deployment at Stariski Creek. Log boom in place in Mud Bay was set in an ocean configuration to permit tidal current to pass through. Exxon was making pom-pom snares and sorbent boom available in Homer to anyone who requested them.

XXXX *McCLINTOCK*: In Larsen Bay, fishermen were corralling oil using a technique similar to seining fish. Private skiffs went inside the boom, then utilized bailers to scoop the oil by hand into fish totes which had been obtained from the cannery. Bailers and five-gallon buckets with holes in the bottom were used to scoop up the oil for transfer to the hold of a salmon seiner. More than 700 gallons were picked up in five hours.

Beach cleanup

XXXX *USCG POLREP SIXTY-FOUR*: Five steam generators were made available for use on Applegate Rocks. Exxon was mobilizing additional hoses and fittings as the hose lengths were insufficient to reach all areas on Applegate Rocks.

DAY FORTY (Tuesday, May 2)

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Exxon moved the M/V Columbia, a 100 person floatel, into Gibbon Anchorage on Green Island. The personnel aboard were to be used in cleaning efforts on Applegate Rocks and Green and Seal Islands. The deadline for cleanup of these remained May 10.

Seventy-80 workers were being deployed to Elizabeth Islands haulout areas for cleaning as well.

XXXX ADEC: Three cleanup sites were established on Seal Island using only cold-water flooding/flushing. Operations at low tide at some sites were hampered due to landing craft vessel grounding and lack of hose lengths sufficient to reach pumps for pressure lines.

XXXX USEPA: Exxon had two crews from NORCON and one crew from VECO working on the north side of Smith Island when the ISCC inspected in the afternoon.

#### Day-to-day operations/management

XXXX ADES: The Valdez EOC dealt with the overload of daily reports and analysis products coming in from governmental and civilian agencies by announcing that it could no longer scale down the data and print it in the daily Valdez EOC SITREP. Instead, individual reports would be transmitted to the state agencies requiring the information.

ADCRA decided not to close out its on-site participation in the Valdez EOC on Friday and to instead keep staff in Valdez through the end of May.

#### Communications

XXXX USCG POLREP SIXTY-FIVE: The entire OSCAR data base was lost at Elmendorf resulting in temporary setbacks on data collection from field operations. The data in OSCAR was typically 12-hours old due to collection, entry-time, and personnel constraints.

The MSO, Anchorage, was being added to the UHF Satcom net along with the USCG Cutter Storis or Yocona to support WAK operations. To support the VIP visitors on May 4, the SATCOM net (same as FOSC command net) was to include USCG air detachments at Cordova and Air Station Kodiak. The JCC continued to totally interconnect PWS operations.

XXXX ADEC: The JCC was equipped with a 40-channel dictaphone recorder. Tape records were to be kept of all radio links to the JCC as well as of all phone patches. The recordings were to be for legal and archival use and were not to be readily available to the dispatcher.

The Exxon UHF net was effective in coordinating operational traffic to its cleanup vessels. Exxon was utilizing commercial satellite links to sites off the state microwave. The state-established VHF system allowed excellent communications for ADEC personnel covering most of PWS and was to have even further coverage when a fourth repeater was added.

The combined efforts of Exxon, FAA, and the state resulted in excellent aircraft flight-following coverage in the Valdez Arm and PWS. Marine VHF coverage of the central Sound was also excellent. Oil spill related traffic was patched to phone lines for direct communications. Exxon utilized a commercial satellite service to set a remote transceiver on Knight Island for south Sound coverage.

The URC-110 satellite system offered by the USAF linked all major players in a backup/emergency system. Local communications had been set up for Homer and Seward operations, including Marine VHF, HF, and local UHF.



Projects planned and under construction included wide-area UHF and marine coverage for Homer and Seward, establishment of joint operations UHF system in establishment of the fourth state VHF repeater in the south Sound. Alaska director of telecommunications, and John Morrone. PWS and marine and HF remote

Projects planned and under construction included wide-area UHF and marine coverage for Homer and Seward, establishment of joint operations UHF system in Sound, and establishment of the fourth state VHF repeater in the south Sound.

Paul Monette, Alaska director of telecommunications, and John Morrone, deputy director, arrived in Valdez to view communications efforts. The good weather allowed their tour to cover UHF and VHF systems in PWS and marine and HF remote sites.

#### Air operations

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*ADES:* A single manager was now handling flight scheduling for state air operations. Air operations functions included insuring pilot briefings, passenger safety, hazardous-materials cargo handling, fueling and refueling of aircraft, contracting of vendors and airframes, and flight-following of airborne aircraft.

#### Costs

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*ADN:* The Alaska Permanent Fund Corporation decided unanimously that it would not vote its stock at the Exxon annual meeting May 18 as a way to make a responsible statement without casting aspersions, according to Fund board member Byron I. Mallott.

#### Damage assessment

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*ADEC:* Two nationally recognized toxicologists, Dr. Herbert Blumenthal, former director of toxicology for USFDA, and Dr. Anthony Guarino, chief of fishery research, division of chemical contaminants, USFDA, were to assist the state and federal cooperative fish-inspection program aimed at preventing any oil-contaminated Alaska seafood product from reaching the market.

XXXX

*USFWS:* USFWS, the USDOJ-Bureau of Indian Affairs, and USDOJ-NPS met in Juneau to discuss damage-assessment procedures.

XXXX

*USEPA:* The Natural Resources Trustees management team met in Juneau for a second day to discuss damage-assessment work. The meeting resulted in an agreement being signed that described the responsibilities of the different agencies. USEPA was not included in the agreement and the State of Alaska had not signed it.

#### Wildlife

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*USFWS:* The Kenai Borough spent \$4,000 to improve the sea otter temporary facility in Homer. Aspergillosis was detected in select seabirds at the Valdez center. Nineteen dead birds were brought into USFWS at King Salmon.

XXXX

*ADFG:* At Katmai National Park, aerial surveys gave increased evidence of damage. Large numbers of dead birds were reported as well as 15 brown bears observed feeding on oiled shorelines.

# # #



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