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ALASKA OIL SPILL COMMISSION

NOVEMBER 14, 1989

ANCHORAGE, ALASKA

OIL SPILL COMMISSION MEMBERS

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- Esther C. Wunnicke, Vice-Chairman
- Margaret J. Hayes
- Michael J. Herz
- John Sund
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- Edward Wenk, Jr.

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1 MR. HERZ: But, on the protection side, I still haven't  
2 heard a strong case made or real examples, other than the  
3 hatcheries, of the sensitive habitat information having been  
4 available, making it possible to protect habitats from severe  
5 damage or reducing the damage.

6 MR. TRASKY: Well, there were quite a few when we got  
7 out way ahead of the spill in Kodiak and Homer. There were a  
8 lot of important streams, important entries and stuff which were  
9 boomed off. Unfortunately, the equipment was not adequate and  
10 the oil got, in some cases, under it anyway. But I think the point  
11 is, I mean obviously this was a miserable failure. The people  
12 were unprepared and everything else. The equipment wasn't  
13 any good. But that isn't -- we're hopeful that this will improve in  
14 the future. If in fact the equipment would have been setting at  
15 Main Bay to begin with and in Chami Lagoon and these other  
16 places, if we had adequate equipment that actually worked and  
17 we were prepared, people were ready to move it it could have  
18 been a whole lot different story. Sure, it would've still been a  
19 mess, but a lot of these areas we wouldn't be trying to take the  
20 oil out of four feet of gravel and stuff. It would -- you know, we  
21 would have dealt with it much better. Hopefully we could've  
22 contained a lot of it at the sight and burned it or whatever. But,  
23 yeah, we had some, there were limited success and some of the  
24 stuff was actually implemented and information was used. You  
25 know, we knew where the oil was gonna go. I mean.....

1 MR. HERZ: But you're underscoring what we've heard,  
2 not having to do with living resources and habitats before, but  
3 just overall, once the oil is out there, the problem is either the  
4 weather doesn't cooperate and the equipment doesn't work, the  
5 technology doesn't work, that the response side, even if  
6 everything were optimal is pretty weak and pretty ineffective.  
7 The Coast Guard says that. Exxon says that. You people say that.  
8 I'm trying to merely get a sense of whether the anticipatory  
9 activity really can do anything. And you've essentially said no, but  
10 if the equipment had been there. There's always these ifs, it  
11 seems to me, that the response side.

12 MR. RUE: Mr. Chair.....

13 MR. HERZ: .....the more we hear.....

14 MR. RUE: .....they're -- Mr. Chairman, we have said, and  
15 I've said it I think, -- Commissioner Wunnicke and I were at a  
16 panel the other day and one of the points I made there was the  
17 old saying, an ounce -- I didn't make it. This could have been  
18 the one Alyeska made. An ounce of prevention is worth a pound  
19 of cure. I think that's absolutely true. Everyone agrees that  
20 preventing is what we oughta really focus on. I think we all also  
21 agree that if you're gonna have a inves -- a problem, inevitably  
22 you oughta be as best prepared as you can be given the risk at  
23 stake to deal with it.

24 MR. HERZ: Yet its.....

25 MR. RUE: .....It's about that simple. And then.....

1 MR. HERZ: And in your example, here or Norway or any  
2 of the testimony that we have heard where this response side  
3 preparedness and equipment response has markedly reduced  
4 the damage, prevented damage. I guess I, today, hearing what  
5 you people are saying am struck even more strongly than I was  
6 ever before that the emphasis has got to be prevention. Because,  
7 on the response side, that side of very few examples any place in  
8 the world where there has been a successful intervention or a  
9 clean up that has picked up a major portion of a major oil spills.

10 MR. TRASKY: What your saying is exactly true. There's  
11 never been a major marine oil spill that's ever been successfully  
12 contained and clean up. The Coast Guard told the Congress that  
13 about 10 years. But, I think the point is that nobody ever really  
14 tried; nobody's every had any equipment; nobody ever planned  
15 for it -- probably the North Sea, the Norwegians were probably  
16 the best prepared. At this point in time, you can be assured the  
17 prevention is what we oughta focus on. That oughta be very  
18 important. But with human beings running this equipment and  
19 these tankers are 14 or 16 years old. I mean the only thing that  
20 gets better with age is wine. You know, it isn't old pickup trucks  
21 or tankers or anything else. So, I think that we need to be able  
22 to, you know -- don't put all your eggs in one basket. Let's be  
23 prepared to deal with eventuality. Say an accident does happen  
24 that we're not able to prevent or that we can't immediately deal  
25 with, let's get the equipment out on site. Let's pick the most

1 important areas. Let's have a plan. Let's think about it. Let's  
2 have the people there to deliver it. And let's do it. I mean, you  
3 know, we identified this for Cook Inlet in 1979, which was quite  
4 a few -- 10 years ago. We identified the sites where this  
5 equipment should be located; that there should be equipment  
6 there and the conditions under which it should be operated. I  
7 mean, this is not a mystery to anybody what needs to be done. I  
8 don't -- I mean, I agree. We should focus on prevention, but let's  
9 not give up on the other thing and say, hey, nobody's ever done  
10 it before. Because nobody tried. Nobody ever needed it and it  
11 jumped at us. Here's our opportunity. We know what can  
12 happen. Let's prepare for it.

13 MR. HERZ: Do you feel confident that had the staging  
14 occurred and we had boom available or containment and clean  
15 up equipment available at these pre-determined locations, that  
16 there is a high probably that you could have had major impacts  
17 on that spill and made major changes in the amount of  
18 protection of the habitats?

19 MR. TRASKY: Yeah, I think it would've been significant.  
20 They're had been a lot less of a mess than what it is right now.  
21 I'm.....

22 MR. PARKER: And you made, you know, you made the one  
23 point earlier in that spill technology has not advanced  
24 significantly in 20 years 'cause nobody spent a dime on it. So, if  
25 you do spend a dime on it, you'll probably have an incomparably

1 better system.

2 MR. TRASKY: This is a real critical point that we  
3 identified in our comments on the Alyeska Plan. And what we  
4 learned is basically what we knew. The equipment doesn't work  
5 over three foot waves, one knot currents and 50 knot winds.  
6 And, I think they tested everything in the world in there. Some  
7 of it worked better than others. What we need to do is have  
8 some kind of a program to advance the technology. Let's have  
9 some -- let's get some of the good boom here. And dispersants  
10 didn't work, you know -- we're not totally opposed to using  
11 dispersants. Let's get some better dispersants that actually do  
12 work. Let's test them before hand, so that people actually know  
13 how to use them and stuff. I don't think it's -- I think that the  
14 idea that you're gonna have a tanker break in half and it's all  
15 gonna spread over 200 miles and you're gonna pick it up; that  
16 isn't gonna happen, but you can certainly lessen the damage that  
17 you would incur and the amount of time.....

18 MR. PARKER: In your discussions, did you ever get into  
19 discussing the navy's coagulants and the possible use of them?

20 MR. TRASKY: We've look at all the stuff over the time. We  
21 have -- Fish and Game has quite a library built up on this stuff  
22 over the last 15 years.

23 MS. SLATER: And actually.....

24 MR. TRASKY: The herding agents.....

25 MS. SLATER: One of the things that the RRT work was

1 gonna do after we had just finished the Prince William Sound  
2 Dispersant guidelines just a week or so prior to the spill, one of  
3 our next tasks was to take a look at that burning agents, the  
4 coagulants and that type of thing and see what we could come up  
5 with, if anything, in the way of guidelines and recommendations  
6 or use of those products and then we got involved in he probe of  
7 this incident that we haven't done anything on that since that  
8 time. But we do, we did collect quite a significant stack of  
9 literature on those products and I expect that we will go back  
10 and look at those elements.

11 MR. RUE: Mr. Chairman, one other.....

12 MR. PARKER: Found out a major oil spills no time to do  
13 R&D, so let's remember to do it in between.

14 MR. RUE: That's what we're trying to do. Mr. Chairman,  
15 if I might. That's exa -- that's a critical point is we are extremely  
16 frustrated when we were testing potentially lethal chemicals  
17 during a crisis and we're gonna be working on that over the  
18 winter. There will be research and development program, but  
19 that needs to be a continuing effort as well.

20 One other point about the information, I think. It is  
21 important. I agree with what you're saying about the difficulty in  
22 the clean up or in the response, but this kind of information also  
23 is useful in prioritizing clean up effort as well, So that, you  
24 know, we tried to direct any efforts in cleaning it up to the most  
25 sensitive areas and that kind of thing. So, this kind of data is

1 important to factor into that other phase of this whole problem.

2 MR. PARKER: John

3 MR. SUND: I have a simple question. How big a spill?  
4 How big a spill are we prepared to handle right now.

5 MR. RUE: A hundred gallons. Well, I'm not sure that  
6 we're the best prepared at this point, since I'm not sure we  
7 know all the equipment that's out there.

8 MR. SUND: Well, I don't know, you've been out there  
9 working on this thing for a long time. Obviously zero is nice, 11  
10 million gallons is too big. Right, that's the side boards? Where  
11 are we now, I mean.....

12 MR. TRASKY: Actually, we probably been involved in what,  
13 15 spills of various kinds, maybe in he last two years. Glacier Bay  
14 Tepithela. We've never seen anybody do anything successfully on  
15 any of 'em and some of them, of course, were much smaller.  
16 How big was the Glacier Bay?

17 MS. SLATER: Well, it never did get between 54,000 and  
18 150,000 barrels. We never did get it clear estimate of exactly  
19 what spilled there. But, certainly it would be less than that spill,  
20 depending upon.....

21 MR. SUND: Less than 50,000 gallons?

22 MS. SLATER: Yeah. According to the U.S. Coast Guard  
23 estimate, if you assume the lower amount on the range that was  
24 spilled, I think they got, they still got less than 25% recovered  
25 or something like that.

1 MR. TRASKY: That was after, though it went wherever in  
2 the rips and was so.....

3 MR. SUND: Well, I'm just getting a feel of where we're at.  
4 You know, everybody's getting excited about responding here.  
5 Today's technology, today, this is November 14th. What are we  
6 prepared to handle. If we had another tanker accident, today or  
7 in the next few months, what size of spill are we prepared to  
8 contain, handle, pickup or at least prevent. Or maybe get easy --  
9 prevent from hitting the beach.

10 MR. BARKER: You have to really break that down,  
11 Commissioner, by time of year, the kind of weather conditions  
12 you're facing, under ice or open water. Those have.....

13 MR. SUND: Take your pick. I don't care. Take your best  
14 case, give me a number.

15 MR. RUE: I don't think we can give you a number. I think  
16 we oughta take a look at the -- Mr. Commissioner, we oughta  
17 take a look at the Alyeska contingency plan, for instance and see  
18 what that does. That'd be a good question to ask DEC with their  
19 estimate is.

20 MR. SUND: Oh, I ask if to everybody. I get the same  
21 answer.

22 MR. PARKER: Well, J O's estimate was that under the  
23 best conditions, the present Alyeska plan would get 35-40% of  
24 it, which is a lot better.....

25 MR. SUND: Nobody's ever gotten over 20% on any pickup

1 in any history of oil spill in the world, so I don't know why they  
2 think they can do better.

3 MR. TRASKY: What are you talking about now; actually  
4 cleaning it off the beaches or actually preventing it from doing  
5 damage?

6 MR. SUND: Oh, I gave it an easy one; just keeping it off  
7 the beaches. I mean, we had, what, 1700 barrels that came out  
8 of the Thompson Pass while it was sitting at the dock. I guess  
9 they contained and picked that up.

10 MR. PARKER: Meg.

11 MS. HAYES: Do you, does habitat division have access to  
12 the information that's being collected under CERKLA?

13 MR. RUE: Commissioner Hayes, we will. Right now a lot  
14 of it's -- there isn't any that's been produced in a form that we've  
15 got easy access to at this point.

16 MS. HAYES: Do you -- are you going to have to wait until  
17 the resolution of the litigation before you have access to it?

18 MR. RUE: I don't believe so. I may let Greg, do you know  
19 anything specific that the attorney told us we can't have -- I  
20 thought they said we could.

21 MR. ERICKSON: Well, maybe there's some  
22 misunderstanding here. The habitat division, along with other  
23 division in the department of fish and game and other federal  
24 agencies are producing information for the CERKLA process, so  
25 (indiscernible) his staff the screen (indiscernible) investigations

1 are providing information to the CERKLA process, so maybe we  
2 can clarify that.

3 MR. TRASKY: In fact, we're -- we're anticipating getting  
4 this information and using it in the decisions of what should be  
5 cleaned up next spring.

6 MS. HAYES: The reason I wondered is that we've heard  
7 from various other people, other agency people that, for  
8 instance, the maps that DNR is working on is mapping CERKLA  
9 information is not allowed to be seen by the people who are  
10 making management decisions. I'm just wondering if that's also  
11 true within Fish and Game?

12 MR. TRASKY: We weren't aware of it. I think early on  
13 there was some question, but I think it was.....

14 MR. ERICKSON: The specific question on those maps  
15 have been held publicly to members of the habitat division. I  
16 don't know if they're involved or not in using them, but it is a  
17 process (indiscernible).

18 MS. HAYES: So, essentially, from your perspective, that  
19 would be public information?

20 MR. ERICKSON: No, I did not say that.

21 MR. TRASKY: In fact I think a great deal of information,  
22 since a lot of it came out of the habitat guide and a lot of it's  
23 come from our field crew, we have a pretty good knowledge of  
24 what's in there and never felt that we didn't have access to it  
25 when the time, you know, when we need it. I know Tim has

1 been working with them on it. He's on one of the biggest  
2 studies in the whole thing. So, no, I wasn't -- I hadn't heard  
3 that and it hadn't worked that way.

4 MR. PARKER: I'll make a brief announcement. We're  
5 going to obviously have a very late lunch, but we will take some  
6 time to eat after we finish with Fish and Game, for the benefit of  
7 the rest of the audience so they can adjust themselves. And then  
8 resume with our consultant's briefing after we grab a bite to eat.  
9 Ed?

10 MR. WENK: I'll be very brief. In response to the Chair's  
11 question number six on statutory regulatory change  
12 recommendations in your written testimony, you say consistent  
13 with Governor Cowper's recommendations to Congress. My  
14 recollection here is a little fuzzy and I'd appreciate your helping  
15 in terms of when those recommendations were made and how.

16 MR. RUE: They were made when -- this spring and  
17 summer definitely had a position on a lot of these issues. I  
18 believe a letter was written by the Governor. I'm trying to  
19 remember who it was addressed. I know it's been expressed  
20 most -- very recently by the Governor's office in Washington, D.C.  
21 during deliberations on House -- Senate and House legislation. I  
22 saw a summary that was put out within a week, saying we  
23 support this part of the House Bill 16, number 85, 84. So it's  
24 sort of been an ongoing thing and I think it was initially this  
25 summer. Do you have a date, specific date, Bruce, that you

1 recall?

2 MR. PARKER: Is that the Governor's letter to Secretary  
3 Skinner?

4 MR. RUE: I believe that's where -- I think Mr. Chairman  
5 that all the recommendations here -- I think that all the  
6 recommendations are here were in one of two sets of testimony  
7 given either by the Governor or Commissioner Kelso before  
8 Congress this spring and this rendition we just don't have the  
9 citation at the bottom, but we have it at the office. If you'd like  
10 us, we can get it to your staff. Would you like that?

11 MR. WENK: It would be appreciated. It leads to a second  
12 and last question. You just made reference to representatives of  
13 the Governor having testified before, I think you said the House.  
14 Is there fairly recent testimony that's been offered by the State  
15 to the House -- by recent I mean say September on and was  
16 similar testimony offered by the senate which I realize passed  
17 it's bill before the House did. It may be a little unfair asking you  
18 folks for answers to this question, but only because you cited it  
19 so conspicuously here. I don't believe the Commission so far has  
20 been copies of this testimony. At least I must confess I haven't  
21 seen it. And, we have it? I don't think I've seen it.

22 MS. WUNNICKE: At least I've seen a printed statement of  
23 the Governor.

24 MR. SUND: I think, Mr. Chairman, what I ran into back  
25 there in Katz's office was they had a lot of responses to issues

1 that were coming up on an ongoing basis on the legislation and  
2 somebody proposed an amendment. The Governor had to  
3 respond to the amendment. And they had two or three letters  
4 running that way, that eventually coalesced in the governor's  
5 positions.

6 MR. WENK: Well, rather than put you guys on the spot,  
7 which isn't fair and time's running out anyway, could I simply  
8 ask staff to furnish copies of this materials to members of the  
9 Commission please.

10 MR. PARKER: Mike.

11 MR. HERZ: One quick question. My understanding that  
12 Alyeska or contractors for them are preparing a habitat  
13 protection portion of their contingency plan. My question is  
14 have they been beating on your door for guidance and have you  
15 interacted with them on what they're generating for those  
16 protection strategies that go in the plan?

17 MR. RUE: Mr. Chairman, I'll have Lance Trasky respond  
18 to that.

19 MR. TRASKY: Yes. In fact, we've met with them on a  
20 couple of occasions. One of their staff members has spent a  
21 considerable amount of time over our office. They're using  
22 primarily the Nadum Swatters catalogue, the habitat guide, a lot  
23 are based in our library, you know and the information we have  
24 on fish and wildlife resources. I don't -- we haven't reviewed  
25 that section. Well, yes we have. The stuff's that's in the current

1 plan is totally out of date. It's inadequate. It doesn't -- but we  
2 understand that they are updating that and we'll certainly take a  
3 real careful look at that.....

4 MR. HERZ: Relative to the earlier question, what I'm  
5 interested in is seeing the degree to which they are  
6 recommending strategies that seem reasonable in terms of  
7 protection. I mean I asked you -- I pushed to get indications of  
8 whether protection strategies work with the Exxon Valdez  
9 incident and I didn't get a strong positive answer and with that  
10 as the perspective, I want to get a sense of what Alyeska's on-  
11 paper plan says and how much protection they are going to be  
12 think -- you know, stating that they could get from.

13 MS. SLATER: Much of that document isn't done yet and  
14 their coastal habitat manual portion or whatever is not done.  
15 Like Lance said, what we've done so far is direct Alyeska to the  
16 best available information in preparing that information. They  
17 did include, in their most recent submittal, they identified a  
18 136, 139 sites that they felt were priority areas. And they had  
19 little maps and statements about 800 feet of X boom being  
20 deployed at this site, you know, in such and such configuration.  
21 And basically, our comment on that was I don't know whether  
22 any of those response strategies have been field tested. Whether  
23 it's just been a paper exercise or whether they've actually gone  
24 out and taken a look at the currents at those locations and  
25 decided whether the capabilities of the boom could effectively

1 operate under those current conditions and that type of thing.  
2 And basically, that's what we spoke to in our comments was, has  
3 that been done. And if it hasn't been done, it should be done up  
4 front so that when you actually get in a spill response situation,  
5 you're not deploying booms in locations only to find out after you  
6 get the boat and equipment out there that you have a four knot  
7 current and you can't use the material. So, that is one thing that  
8 we identified as a question and asked to be addressed in our  
9 comments on Alyeska's plan.

10 Another thing that they have done thus far is to basically  
11 using a lot of the prioritization that was worked out during the  
12 Exxon Valdez as a proposed template for future action. I think  
13 that's a real good starting point, but I guess my concern there is  
14 that there's going to be information gained from this spill  
15 response and from the damage assessment that I would like to  
16 evaluated and stacked within a long term plan, along those lines.  
17 And to be frank, a lot of decisions were made very quickly and  
18 under to gun during the Exxon Valdez response and I'm not  
19 convinced that, under a calmer atmosphere with some more  
20 thought and reflection, that we couldn't refine some of that  
21 material as well. So those are all of the type of points that we  
22 raised and recommend that be looked at in reviewing the plan  
23 and the Alyeska response.

24 MR. PARKER: Counsel.

25 MR. HAVELOCK: Just, what's the size of the professional

1 work force that you had in the field at Prince William Sound  
2 after the spill and after the first -- when it stabilized, if it ever  
3 stabilized. I'm just thinking a comparison with DEC or  
4 whatever?

5 MR. RUE: The total, we had about 25. We got  
6 authorization for 29 positions, but we had about 25 at the high  
7 point.

8 MR. TRASKY: Are you just talking about the clean up  
9 aspects of it because there were people who were working on  
10 commercial fisheries management and damage assessment. So  
11 probably, if you add everybody in there was probably in excess of  
12 100 people I would guess, if you count Kodiak, Homer,  
13 Anchorage, you know. There's I would say in excess of 100. If  
14 you count the commercial fisheries management, the  
15 subsistence human health studies, the damage assessment and  
16 cleanup you probably have over 100.

17 MR. HAVELOCK: How would that compare with DEC's  
18 professional staff?

19 MR. RUE: I'm not sure. Lance do you know?

20 MR. TRASKY: Bruce?

21 MR. BARKER: I don't -- bigger, smaller.

22 MS. SLATER: Smaller I think.

23 MR. BARKER: Yeah, the commercial.

24 MR. TRASKY: In Homer, in Kodiak I suspect we probably  
25 had more people and I don't know about Valdez. I know, you

1 know, -- I don't know about Prince William Sound. I know in  
2 Valdez they had a lot more staff than we did, but as far if you add  
3 our comm fish people and damage assessment, I don't know. I  
4 think they probably had more people.

5 MR. HAVELOCK: I noticed the considerable overlap in  
6 terms of concerns with DEC. Do you have some working  
7 protocol as to how you divide work where you have a common  
8 interest. Or is there any friction or confusion between what you  
9 and DEC do?

10 MS. SLATER: I think that needs to be more thoroughly  
11 articulated.

12 MR. RUE: Mr. Chair, I had a question on what -- are you  
13 talking about spill response, on contingency planning -- on  
14 which aspect.....

15 MR. HAVELOCK: I'm talking the work. I mean it struck  
16 me when you were talking about your extensive library, for  
17 example, and the work you do on chemical response. They're  
18 doing the same stuff.

19 MR. TRASKY: I think it's a very important point that in  
20 the state of Alaska, the types of things that are managed by oil  
21 spills primarily fish and wildlife resources, fish and wildlife  
22 habitats, industry are based on. Like the commercial fisheries,  
23 birds, marine mammals, fish. The Department of Fish and Game  
24 has that responsibility. That's our area of expertise. And  
25 impacts of various activities on those develops a good response

1 on the Department of Fish and Game. DEC's primarily  
2 responsibility is pollution, prevention, clean up. And I don't  
3 think that there really is any overlap. It is complementary.  
4 We've taken our job very seriously. You can't make decisions,  
5 complex decisions, without having good information. That's why  
6 we have that information. And you can't make 'em without  
7 having that information in hand. And that's why people within  
8 Fish and Game spend a lot of time determining what kind -- you  
9 know, dispersants -- we don't know a lot about dispersants, but  
10 if you put it in the water, other than ruining the water quality,  
11 the other things that are gonna be harmed are the fish and  
12 wildlife that are there. So, that's arbitrary.

13 MR. RUE: I think as we've suggested here, we need to  
14 develop a response organization that has clearly defined roles. I  
15 think yes there has been confusion as you would expect in this  
16 kind of a thing. But I think we should learn from the problems  
17 we've had this last time in communication, in decision make,  
18 inter-agency coordination and set up a system that provided  
19 better for that. And we don't run into the same kind of  
20 problems where there're a lot of adhoc things going on and it's  
21 very hard to get your point of view across. And we feel  
22 particularly strongly because of what Lance just said. The  
23 responsibilities that we have are the things that are getting hit.  
24 And we feel we need to have a strong role in the decisions about  
25 those resources. And so I think developing a better system for

1 inter-agency coordination, a clear definition of roles is  
2 important, 'cause there were problems, definitely.

3 MR. HAVELOCK: I guess it's still not clear to me. First of  
4 all, do you have any protocols that are now in effect between you  
5 and DEC on role management in response to a spill?

6 MR. RUE: I'm not aware of any. Are you, Lance or Claudia.

7 MS. SLATER: Not really.

8 MR. RUE:: Other than RRT, the Regional Response  
9 Teams that we talked about.

10 MR. TRASKY: Yeah, DEC's not the heavy develop that sort  
11 of thing. We don't have that, but I mean DEC is the state's -- you  
12 know, has primary state response. It's only one person tops the  
13 Coast Guard, that's DEC. And everybody falls in through there. I  
14 mean, there that, everybody understands on that one.

15 MR. HAVELOCK: What kind of a budget do you have for  
16 contingency planning with respect to critical habitat areas.

17 MR. RUE: Well, our -- very little. Claudia does it some.  
18 She's only partially -- that's only part of her responsibility. She  
19 has many others. She reviews lease sales and all sorts of things.  
20 And that's it. We're trying to get a position through DEC. One  
21 person work on the statewide and regional contingency  
22 planning. And, as I said, I think we're gonna have to look in  
23 future budget to have part of a person responsible for  
24 maintaining those things in a good shape. But, part of a person,  
25 a whole person, I don't know. I think that may come out of the

1 contingency planning effort itself.

2 MS. SLATER: For contingency planning per se, we've  
3 never really had any specific funding devoted to that. We've had  
4 funding devoted to these particular projects, but frankly a lot of  
5 what the department has done over the past has just been  
6 through initiative of the regional office in making time to  
7 participate. I'd sure like to see that change because off the way  
8 it's been in the past.

9 MR. RUE: I'm looking to the contingency plan that DEC is  
10 gonna come up with as a way to establish a budget. I don't think  
11 we'll be very successful as an agency going in and saying, we  
12 need two, three, one people to do this. I think DEC needs to  
13 take the lead and say, here's what's needed out there. Here's  
14 what DNR oughta be doing. Here's what DEC oughta be doing.  
15 Here's what Fish and Game oughta be doing. And here's what  
16 they need to do a good job of it. And that might be successful  
17 because it's a program.

18 MR. PARKER: John.

19 MR. SUND: I'll just put it in perspective. Fish and Games  
20 budget from the general fund, I think is about \$33 million a year  
21 out of a \$1.8 billion a year state budget. And that doesn't include  
22 federal funds. I think that's just the state general funds.

23 MR. RUE: Our division is 2.7 or 2.9 and of that, very little  
24 of it is available for contingency.

25 MR. SUND: We spent a hundred million dollars on the

1 Division of Corrections to keep people in jail, just to keep a state  
2 perspective of what we think bout this issue.

3 MR. PARKER: That's why I didn't want to create that  
4 division, department, I mean. I didn't want to make that  
5 department, it was a division.

6 MS. WUNNICKE: Question, Mr. Chairman. I'm a little  
7 unclear. When you're talking about the special projects, do you  
8 have the same level of information for Cook Inlet that you have  
9 for Prince William Sound? You do?

10 MR. RUE: Yes.

11 MS. SLATER: There are some areas of the state where we  
12 have real, I think, real good information and there are other  
13 areas of the state (indiscernible - fading). Cook Inlet and Prince  
14 William Sound, I think are two of the better known areas in  
15 Alaska as far as fish and wildlife values go. The further afield you  
16 get from that, the bigger gaps you're gonna encounter.

17 MR. RUE: I think Norton Sound we have pretty good  
18 information on that.

19 MS. SLATER: Norton is good and the Beaufort is pretty  
20 good because all of the attention up there. But Chuckchi is left  
21 so.....

22 MR. TRASKY: For a private lease, no. Probably the most  
23 risk and least known. Actually one place where we could use  
24 this kind of information -- well we have a lot already, but to be  
25 really good and do the kind of job that we do in Cook Inlet and

1 Norton Sound and now in Prince William Sound would be in the  
2 southeastern Bering Sea, Bristol Bay, Golden Triangle and I  
3 think that'd be new development. But again, those funding --  
4 that was the old Coastal management energy impact program  
5 which allowed us to do that kind of thing. It's no longer there.

6 MR. HAVELOCK: I have a couple of questions for Greg.  
7 The -- you've been involved now in the CERKLA process. I  
8 suppose in some senses we take those hat in hand to this  
9 federally mandated process. Would it make sense for the state  
10 to have it's own equivalent of a damage assessment process?

11 MR. ERICKSON: Mr. Chairman, Mr. Havelock, I think  
12 there's two aspects to that question -- to the answer to that  
13 question. First of all, it's clearly, in part at least and maybe a  
14 major part, a legal issue, a question of our obligations under  
15 various laws that we operate under and it's also a question of  
16 litigation strategy, whether it makes sense to sort of split the  
17 sheets on this and go our separate ways. It is, I think probably  
18 more than anything else, a question of litigation strategy and our  
19 obligations under those laws. And those ar legal questions that  
20 I'm not gonna try to address. They should be addressed to the  
21 attorney general's office, as I'm sure they've been thinking a  
22 great deal about them. I know they have.

23 There are also practical and political factors involved  
24 though. The Clean Water Act, which is a federal law, says that  
25 injury, damage assessment, and recovery and restoration will be

1 accomplished by trustees that will be appointed for the various  
2 resources. And the state is a trustee in this case, and is -- I  
3 should say the Governor has appointed Commissioner  
4 Collingsworth as the state's trustee in this case. Commissioner  
5 Wunnicke raised a question about the balance on that  
6 trusteeship, in that trustee ship forum, which I might return to  
7 in just a moment.

8 But, that process, the process that's been undertaken by  
9 the trustees, is going to go forward whether we are playing a  
10 part in the process or not. As a political matter, I think it's  
11 unlikely that we're going to want to crawl out from under that  
12 tent as confining or as uncomfortable as we may be inside it, and  
13 just let the Feds wander off on their own. There's also a  
14 practical matter. If we were to undertake these assessments on  
15 our own, and it's a practical matter of expertise and resources. I  
16 think that it's fair to say that the resources that are available  
17 from Exxon, which is partially funding the assessment and  
18 impact assessment process right now and from the federal  
19 government, would be there for us if we were on our own.  
20 That's probably not a major factor. More important, however,  
21 though is the a fact that expertise is limited in these areas.  
22 Migratory waterfowl, under the current assessment program,  
23 most of that work is being done by the federal government  
24 because they have the expertise in the Fish and Wildlife Service  
25 and their other agencies. Similarly, they've counted on us to do

1 most of the work with regard to salmon, because we have the  
2 expertise in that.

3 I doubt if the public would be very sympathetic to  
4 duplication of these efforts, even if it was required for litigation  
5 and recovery. I think they're other, many important legal points  
6 and I've heard sort of discussions on them, but I'm not going to  
7 get into those. That's my answer to your question, Mr. Havelock.  
8 I'd like to respond to Ms. Wunnicke's point as well.

9 MR. PARKER: Go ahead.

10 MR. ERICKSON: You expressed some concern, as others  
11 have, over the apparent imbalance between the one, state  
12 trustee, Commissioner Collingsworth, and the three federal  
13 trustees, secretaries of the Departments of Agriculture,  
14 Commerce and Interior. And I think it's natural that people  
15 would see that as sort of an inappropriate kind of balancing and  
16 in a sense it hasn't worked that well in some respects. But the  
17 reason -- if there are problems with the process, it hasn't been a  
18 consequence of the imbalance. Decisions in the trusteeship  
19 forums where we participate with the federal government have  
20 been made in practice on the basis of each member of that  
21 forum having a veto power. And, as a consequence, the problem  
22 has not been that we don't have as much power as anybody else.  
23 We would much prefer, I think, to go into those forums with the  
24 federal government speaking as one voice. But, I don't think  
25 that's likely to happen. I think the -- this is my personal

1 opinion, I believe the federal agencies, however, feel that they  
2 have responsibilities under the act for specific resources and  
3 that it's not likely that they're going to abandon those unless  
4 events happen at the federal level that just don't seem to be in  
5 the cards. I happen to know, 'cause I spoke to Commissioner  
6 Collingsworth about this very question a number of times.  
7 Commissioner Collingsworth does not believe that the imbalance  
8 has been a problem. There may be problems with the process,  
9 but that's not one of them in his view.

10 MR. HAVELOCK: There's been some -- some people have  
11 suggested that the litigation tail has wagged the rehabilitation  
12 dog with respect to the CERKLA process. Do you just want to  
13 comment on that?

14 MR. ERICKSON: Well, there's been suggestions on the  
15 other side, too. That the resource agencies haven't been  
16 sufficiently sensitive to the litigation requirements. I believe  
17 that there are necessarily going to have to be balancing between  
18 the exigencies and requirements of litigation and resource  
19 management and resource responsibilities that the trustees have  
20 as managers, trustees for these resources. Those aren't -- those  
21 tensions and difficulties aren't going to go away because of some  
22 re-organization or anything. They've just -- management passed  
23 some challenges that we're going to have to deal with. And I  
24 think good progress is being made on that. I don't think it  
25 would be correct to characterize the litigation tail as waving the

1 resource dog.

2 MR. PARKER: In line with that, at a meeting with the  
3 Arctic Research Commission, they expressed concern -- this was  
4 mostly University Fairbanks types and their colleagues in  
5 Washington working at those levels of science of an inhibition of  
6 the blow of scientific knowledge, either the litigation process.  
7 Does that appear to be a problem now.

8 MR. ERICKSON: Well, it's a problem to those folks who  
9 are talking to you. And there's no question the attorney's who  
10 are accustom to running litigation have, want to stamp  
11 everything litigation-sensitive, you know, confidential. And the  
12 maps that Commissioner Hayes was talking about are stamped  
13 litigation-sensitive, confidential and I think -- I mean, that's a  
14 good example. Those maps are probably -- I don't know that  
15 they've actually been used as a management tool, but if the  
16 department -- divisions within the department needed to use  
17 them, we would find a way to get that information to them. So I  
18 don't think it's been a problem in terms of managing the  
19 resources. Scientists are -- a major part of their ethic involves  
20 free exchange and that's important in science and it's important  
21 in litigation that to be sure the other side doesn't have your  
22 game plan. Now, as a practical matter, we printed 60 copies of  
23 some of these reports and each one is stamped litigation  
24 sensitive. Frankly, I don't think any copy, any report that you've  
25 put 60 copies out is gonna stay out of the other side's hands for

1 very long. My guess is maybe two weeks, but who knows. It's a  
2 management task to balance those differing needs of the  
3 differing partners.

4 MR. HAVELOCK: i just have one last question. I'm calling  
5 on what I know about your past expertise. You were talking  
6 about an ounce of prevention and I wanta know, is there a  
7 formula available to measure the cost of an ounce of prevention  
8 as measured against wellhead benefit to the state.

9 MR. ERICKSON: I'm sure that with appropriate money for  
10 economic consulting contracts we could come up with as many  
11 formulas on that as you'd like.

12 MR. HAVELOCK: So, you're saying there's not a particular  
13 formula that you can use for saying what a million.....

14 MR. ERICKSON: No sir, not.....

15 MR. HAVELOCK: .....dollars in investment is gonna cost  
16 the state in terms of it's wellhead return.

17 MR. ERICKSON: The relationship between the cost of  
18 prevention in this case, and the state's well head value are  
19 subject to calculation, but are subject to differences depending  
20 on what kind of investment, who makes it, whether it's  
21 recovered through taxes or prices and so I'd guess I'd hesitate to  
22 apine (ph) off the top of my head. But I guess we could say that  
23 as in general, the state participates with quotes around it, in  
24 about 20% of, perhaps as much as 25% of the wellhead values,  
25 depending on which field, severance tax rates for the

1 (indiscernible). And to the extent that that shows up as a  
2 reduced net fact value, we will pay, or not receive, that fraction  
3 less.

4 MR. HAVELOCK: Thank you Mr. Chairman.

5 MR. SUND: Seeing as that line of question is now open,  
6 what is the tanker tariff? What did we settle on in that  
7 litigation?

8 MR. ERICKSON: The current tanker tariff is  
9 approximately -- I haven't seen -- I have not seen, since I've  
10 taken over my new responsibilities, I haven't been involved with  
11 that. But my understanding is the new tariff is in the  
12 neighborhood of -- it's not the tanker tariff, but the pipeline  
13 tariff, is in the neighborhood of three dollars -- it's in the  
14 neighborhood of four dollars a barrel.

15 MR. SUND: And that includes the tanker portion.

16 MR. ERICKSON: No. I'm not aware that the tanker  
17 portions have risen, but it's inevitable that they will as the  
18 consequence of those.

19 MR. SUND: That's what I'm trying to get a feel for.

20 MR. PARKER: Yeah, tankers are a buck to the Coast and  
21 240 to the gulf now.

22 MR. SUND: We asked the wrong gentleman.

23 MS. WUNNICKE: At one time, I think about \$6 total.

24 MR. HAVELOCK: I don't have any further questions.

25 MR. PARKER: Anyone else? Well, Greg, obviously, we're

1 in the assessment for the long haul, since we've created a new  
2 division and new over to head it. How long do you think it's  
3 gonna run, the whole process?

4 MR. ERICKSON: The assessment phase, I hope, will not  
5 be a career.

6 MR. PARKER: Uh, hum.

7 MR. ERICKSON: But I think the restoration in particular  
8 is going to be a long undertaking.

9 MR. PARKER: Uh, hum. Any other questions? Thank you  
10 very much. We will probably be contacting you in the next six  
11 weeks for a good deal more information, but you certainly  
12 conveyed a lot today.

13 MR. ERICKSON: Thank you Mr. Chairman. Thank you for  
14 the opportunity to be somewhat democratic in our presentation  
15 and informal.

16 MS. WUNNICKE: Thank you.

17 MR. RUE: It's a means and method that fish and game  
18 used at other meetings within it.

19 MR. PARKER: We're gonna grab a sandwich. Let's go and  
20 reconvene here at 2:30.

21 (Off the record)

22 (On the record)

23 MR. PARKER: Presentations are going to be by our  
24 consultants on oil tankers, contingency planning, risk  
25 assessment, hazard assessment, etc. engineering computer op,

1 technomics, Inc. of Annapolis, Maryland, Virgil Keith, Dan  
2 North, Joe Pourchelli behind him, Bob Schultz, and Dick Willis,  
3 over here. And Virgil, take it away.

4 MR. KEITH: Thank you Mr. Chairman.....

5 MR. PARKER: Oh, one more announcement. They're  
6 going to, in the interest of saving us some time, we're going to  
7 spend, be spending all day tomorrow here on the technical side  
8 of this and expand a lot of what will be heard here today,  
9 tomorrow. So this is going to be a very short version of the  
10 whole package.

11 MS. HAYES: Mr. Chairman, I would like to note that in  
12 your list of figures on the Exxon Valdez oil spill re-assessment of  
13 oil spill clean up technologies. I was quite excited by figure 9-  
14 general arrangements of the cosmos. I thought we had finally  
15 picked the right consultant company. I was disappointed to find  
16 it was only a ship.

17 MR. KEITH: Chairman Parker, Vice-Chairman Wunnicke,  
18 Commissioner Hayes, Commissioner Sund, Mr. Havelock, let me,  
19 once again, introduce the team. First, my right hand man, Joe  
20 Pourchelli's going to be taking the hazard assessment. Joe  
21 helped me a great deal on the tanker design too, so the two of us  
22 will take the flak on that together. Then he'll be followed by Dan  
23 North. Dan did the risk analysis. And then Bob Schultz will do  
24 the contingency planning and, of course, the author of another  
25 report that Commissioner Hayes is talking about that's been

1 presented to the commission earlier. And then I will take the  
2 tanker design and then Dick Willis will follow with the cost,  
3 doing the cost benefit analysis. Without further ado, and again in  
4 interest of time, we're gonna start with Joe on the hazard  
5 assessment and I guess I'm just gonna switch things with you  
6 now, Joe.

7 MR. POURCHELLI: Very quickly, the slide that's up there  
8 now is a very brief summary of exactly what our hazard  
9 assessment chapter discusses. One thing I might add to Virgil's  
10 introduction, the report is set in six chapters. The first one  
11 being an introduction and chapter two is what you see before you  
12 at the moment, is the hazard assessment and so on and so forth  
13 as the rest of our speakers will talk to you about very briefly.

14 So, within the hazard assessment, we conducted an  
15 identification of hazards within the operating environment. In  
16 other words, the hazards to shipping which are present in Cook  
17 Inlet and Prince William Sound. We did a quantification of  
18 marine traffic for a reason which will become obvious as I go  
19 along here. We determined the spill location, where the spills  
20 are likely to occur. And then the hazard assessment goes on to  
21 develop spill incident rates and spill volumes. And lastly, the  
22 hazard assessment calculates spill probabilities and their  
23 recurrent intervals. Next slide please, Dick.

24 Again, very briefly, the hazards in Prince William Sound  
25 are not not dissimilar, though they have different effects on the

1 level of safety in each of these two areas. Your basic hazard's  
2 navigation, if there is such a thing as a basic hazard. But the  
3 hazards in Cook Inlet and Prince William Sound are the  
4 currents, the wave action, seasonal ice, wind, limited visibility,  
5 storms, obviously other marine traffic, an unforgiving bottom.  
6 And that I might just take one second on. It's rock. And you run  
7 aground in Prince William Sound and Cook Inlet, the likelihood  
8 of rupturing your outer hull is very, very high. And then there  
9 are numerous detached rocks, shoals, reefs in both areas, and  
10 then within Cook Inlet there is, as you're all aware, offshore  
11 drilling activities and facilities which present a hazard to  
12 shipping operations. Next, please, Dick.

13 In Cook Inlet, these were the three spill locations for a  
14 variety of reasons which are explained in detail in the report  
15 that we identified as being the high risk, or the areas where the  
16 spills are most likely to occur. And as you can see, there's one in  
17 the vicinity of the docks up at Nikiski, one at the entrance to  
18 Kachemak Bay and one within the Kennedy Entrance as you  
19 come in between the Baron Islands and the Chugach Islands.  
20 Likewise, in Prince William Sound, the three locations; there's  
21 one in the vicinity of the terminal in Valdez, one within Valdez  
22 arm itself at the southern extremity in the vicinity of the now  
23 infamous Bligh Reef, and lastly one at the entrance to the  
24 Hinchinbrook in the vicinity of Seal Rocks.

25 Within each of the two areas, Cook Inlet and Prince

1 William Sound, based on a combination of worldwide tanker  
2 accident data and spill data that we maintain within house, and  
3 have done so since 1969 in combination with local data that we  
4 again maintain ourselves and other people do, namely the Coast  
5 Guard, we determined that the three spill ranges that would  
6 typify Cook Inlet are the ones that you see before you. That's one  
7 of from 300 to a million gallons. And then one, the second one  
8 from one to nine million gallons. And the third from nine  
9 million to 21 million.

10 Very quickly, why the 300 gallons. 300 gallons is, in very  
11 approximate terms, a ton of oil. And below that the majority of  
12 the spills come in what I call onesies and twosies, gallons that is,  
13 and are the ones that are more typical from oil transfer  
14 operations while the ship's out of dock. And in an attempt to  
15 weed those out of the major spill analysis that we were doing, we  
16 picked the 300 limit. The one million gallons represents the  
17 size of one wing tank on a typical 70,000 dead weight tanker,  
18 which is about the limit of the size tanker you will get in Cook  
19 Inlet. The 1-9 million gallons represents approximately half of  
20 the tanks in such a ship. And then the 21 million gallons is the  
21 total loss of the ship and obviously that's the biggest you can go  
22 with that being the size of the biggest ship. Next one, please,  
23 Dick.

24 This is the same sort of presentation for Prince William  
25 Sound and they just run at cutoff points at three million gallons,

1 11 million and 75 million gallons. Same rationale. We've  
2 obviously got a larger size ship in Prince William Sound. We use  
3 a 250,000 deadweight tanker and it's wing tank, single wing  
4 tank contents it the three million gallons. The 11 million  
5 gallons is a combination of a pair of wing tanks and a center or  
6 two center tanks, and very closely approximates the estimate, of  
7 course, which came from Exxon Valdez, and then the 75 million  
8 gallons is the total contents of a 250,000 ton tanker. Next  
9 please, Dick.

10 We went through a process, after determining locations,  
11 ranges for the volumes, to determine spill incidence, spill  
12 probability and spill recurrent intervals. We use, again, the same  
13 data I refer to before. It's a -- one of the problems I should say,  
14 before I go on here, with spill data, is especially spills of this  
15 size, you very quickly come into -- you can get into small data  
16 sets. And therefore have the problem of statistical liability. And  
17 it's for that reason and that reason primarily that we have to deal  
18 with a data set that is largely than that you would find just in the  
19 local area (ie: the Cook Inlet or Prince William Sound). From  
20 that we go through a plason (ph) probability distribution to get  
21 probabilities and from there recurrence intervals for each of  
22 these three spill sizes. And as you see before you, in those three  
23 spill ranges, we project them with the 95% -- with variance at  
24 95% confidence levels at approximately three years, 25 years,  
25 and 66 years for Cook Inlet. In Prince William Sound, which is

1 the next and the last slide, for the comparable ranges, they're at  
2 two years, 14 years and 41 years. These are rounded off  
3 numbers from the exact numbers that appear in the report.

4 In closing, there are two things that the report points out  
5 on these recurrent intervals. On an individual basis, on a  
6 individual exposure basis, Cook Inlet is more hazardous than  
7 Prince William Sound. However, because of the higher level of  
8 traffic, and therefore the greater exposure over a time period  
9 that you have in Prince William Sound, your probability of a spill  
10 is higher there and therefore your recurrent intervals lower.

11 Now we're gonna move off to Dan North who kinda takes  
12 the second half of the total risk assessment package. And he'll  
13 be talking about risk analysis.

14 MR. NORTH: Thank you Joe. Dick, could you hold off on  
15 that first slide for just a second. When we first became involved  
16 in this project, it was decided from our start that the primary  
17 focus of the risk analysis would be to expand on the results of  
18 the hazard assessment, which Joe just discussed. And what we  
19 did was determine what geographic areas would be at risk from  
20 those hazards, which Joe identified. We did this by creating  
21 projections of oil slicks, using our proprietary computer model.  
22 The program predicts the movement of slicks based on a  
23 number of variables, which I'll discuss in a minute. So, my  
24 intent here is to briefly explain the mechanism of how oil slicks  
25 grow and move and then show you a few examples of some of our

1 projections. Okay, first slide. Thanks.

2 The movement of oil slicks is determined, broadly  
3 determined by a combination of two types of forces. And those  
4 are the spreading forces and transport forces. Briefly, the  
5 spreading forces have been described by professor Fay in a three  
6 phase spreading model, where he identifies three separate time  
7 phases: the gravity inertia phase; the gravity viscus phase; and  
8 the viscus surface tension phase. These are what I have just  
9 called the spreading forces. These are acting without the  
10 transport forces, which we see next.

11 The transport forces are the environmental forces, if you  
12 will, which are composed of the vector sum of wind and current.  
13 The wind transports an oil slick at a certain fraction of the wind  
14 spee, in the same direction as the wind. And current transports  
15 an oil slick at the local current speed. That is the current speed  
16 that part of the slick is seeing at that time. The graphics I'm  
17 gonna show you are some results of our computer model run,  
18 and it's important to keep these points in mind when we look at  
19 these graphics. The graphics show every where the oil slick has  
20 been up to and including the time shown. It's not an  
21 instantaneous snapshot of the extent or shape of the slick at the  
22 time shot. It shows where it's been at every point up in time to  
23 that point. Also, the black area shown may not be continuous.  
24 The oil may be broken up into patches. And lastly, it's also  
25 important to bear in mind that the models run under typical

1 conditions. I think it's important to emphasize that. We, as Joe  
2 mentioned briefly, we've broken that up into typical summer and  
3 typical winter conditions. That includes wind, current,  
4 temperature, because they all change from summer to winter.  
5 And, any real actual spill, such as the Exxon Valdez spill may  
6 certainly give a different result in these typical conditions.  
7 Typical conditions are the best we can come up with as far as  
8 environmental, wind and current conditions. Okay, next one.

9 This is a spill that's originating at Nikiski. It's 168 hours  
10 after the spill, which is one week. It's a spill size of nine million  
11 gallons and the typical summer wind and current conditions.  
12 You can see that it extends in the north all the way up to  
13 Anchorage, but not quite into Turnagain or Knik Arms. It goes  
14 across Cook Inlet to Drift River, all the way south into Kachemak  
15 Bay, impacting the shorelines near Homer and Seldovia and  
16 around the tip of the Kenai Peninsula actually, over on the back  
17 side. Okay, next one.

18 This is a same size spill, after one week, originating right  
19 off the mouth of Kachemak Bay. You can see it doesn't go quite  
20 as far north. It goes somewhat past Nikiski. It goes all the way  
21 to the west, across Cook Inlet, over to Drift River, covering  
22 virtually all of the western shore of Cook Inlet, not quite all the  
23 way into Kamishak Bay, down to Cape Douglas, just starting to  
24 impact Shudiak (ph) Island. It's surrounded the Barren Islands.  
25 It's going into Kachemak Bay, again, impacted the shores around

1 Homer and Seldovia and around the other side of the Kenai  
2 Peninsula. Next please.

3 Same size spill, again. This is the intermediate size spill  
4 for Cook Inlet. This is spilled at Kennedy entrance, again, under  
5 typical summer conditions. We don't go quite as far north again.  
6 We go just past Nikiski. However, virtually the whole western  
7 shore of Cook Inlet, down past Cape Douglas to Ashugiak (ph)  
8 and Afognak Islands, covering all the Kennedy Entrance and the  
9 Barren Islands there and all the eastern shore of Cook inlet from  
10 Nikiski down to Homer, Kachemak Bay, Seldovia and around  
11 again the back of the Kenai Peninsula. Next please.

12 Now we're going to the group of spills in Prince William  
13 Sound. This was, again, the intermediate size spill after one  
14 week, 11 million gallons spilled right at the Valdez terminal.  
15 You can see that it pretty much fills in all of Port Valdez and it  
16 started to make it's way out through the narrows and is not quite  
17 gotten down to Bligh Island.

18 MR. KEITH: Maybe on that one, if I can just interject. I  
19 know you heard Fish and Game bring up the point it's not only  
20 the size of the spill, in this case it's the Exxon Valdez size of 11  
21 million, but where it occurs. In this particular case, it would  
22 make a lot of sense not to give up on the spill equipment, the  
23 contingency. Perhaps through the narrows itself, you could  
24 block that off and basically attack the spill from the south  
25 through the narrows. So, it makes a big point of not only the

1 amount of spill, but where it occurs. So I think this graphic is  
2 extremely important.

3 MR. NORTH: This is, to give a little bit of contrast here,  
4 is the largest spill we modelled, 75 million gallons. And this is  
5 after 28 days, 672 hours. Originating at Bligh Reef, and you can  
6 see it covers virtually all of Prince William Sound, has come out  
7 through the passages in the southwest part of Prince William  
8 Sound, through Hinchinbrook Entrance, completing surrounded  
9 Montague Island, has impacted Hinchinbrook Island and then  
10 has been carried along the shore of the Kenai Peninsula, up into  
11 Cook Inlet, into Kachemak Bay and has just started to impact  
12 Chudiak Island.

13 MR. KEITH: Again, I think I'd like to add, again, the  
14 Exxon Valdez, the total contents was 50 million gallons. You'll  
15 note that this is 75 million. So this is what Joe talked earlier --  
16 this is the largest vessel we looked at, a 250,000 ton vessel  
17 loosing it's entire content. So, the 75 million gallons again  
18 equates to a 250,000 tonner, which does run into Port Valdez  
19 and then loosing the entire contents in the cargo.

20 MR. NORTH: And this is back to the intermediate size  
21 spill, spilling off Hinchinbrook Entrance, again, 28 days later.  
22 Since we start further south, we get out into the offshore  
23 currents and into those currents in the southwest passage of  
24 Prince William Sound pretty quickly. Transporting the oil again  
25 down the Kenai Peninsula and around through the Kennedy

1 Entrance, up all the way into Cook Inlet. You can see that after  
2 28 days, virtually all of Cook Inlet all the way up to Anchorage  
3 has been impacted at some point or another. We have oil also  
4 down to Chudiak (ph) and Afongak Islands.

5 And this is the last slide, I believe. The same size spill,  
6 the same location after one week. You see we surrounded  
7 Montague Island and are starting to make our way southwest,  
8 along the bottom of the Kenai Peninsula. And that's all I have  
9 and I've forgotten who's next.

10 MR. HAVELOCK: Are you taking questions in between or  
11 do you wanta wait until the end.

12 MR. KEITH: I think we'd rather wait until the end, but  
13 we can do that either way, however the Commission would want  
14 to do it. Perhaps right now, if you've got a quick one, Counsel,  
15 we can take that.

16 MR. HAVELOCK: Well, I have two questions about those  
17 projections you're just showing. One, it puzzles me when you're  
18 showing a projection of a major spill off Hinchinbrook Entrance  
19 and you have the whole thing moving up and covering Cook Inlet.  
20 Yet, with the -- and flowing to a lot of areas that Exxon Valdez  
21 went through. Yet, Exxon Valdez, at the same time, was all over  
22 Shelikoff Strait and down -- for also a summer, a late summer  
23 spill, or pardon me, an early summer spill and yet you seem to  
24 show, you know, in that type of thing that Shelikof Strait without  
25 Kodiak is free. Now, that puzzles me.

1 MR. NORTH: Well, after a certain period of time, we --  
2 our data we got it was about 35 days before oil from the Exxon  
3 Valdez impacted.....

4 MR. HAVELOCK: I was mis-reading maybe the number of  
5 days.

6 MR. NORTH: Right. This particular one is just seven  
7 days, but the large one we showed before was only 28 days. And  
8 indeed, our model does show that after a certain period of time,  
9 oil does continue down in the Shelikof Strait there.

10 MR. HAVELOCK: You have it up at the top of Turnagain  
11 Arm before it reaches south Kodiak Island?

12 MR. NORTH: Yes, that's correct. You have quite strong  
13 currents in Cook Inlet that transport it up there. Whereas, the  
14 currents offshore are somewhat more diminished.

15 MR. DOOLEY: They, for the Commission's benefit, when  
16 they developed this model, they went ahead and produced their  
17 product. Post the development of their model, we then gave  
18 them the logs of the spread from the Exxon Valdez to calibrate  
19 against. And as you pointed out, Kodiak was 35 days before it  
20 was hit. We also had two unusual storms during the Exxon  
21 Valdez incidents and this has been used, using the normalized  
22 summer and winter current and wind data. So, it's a model, but  
23 it's not to be an extrapolation of how the Exxon Valdez oil was  
24 transport. Is that.....

25 MR. NORTH: That's correct. That's the emphasis on

1 typical condition. We're not trying to replicate that spill or any  
2 other. We're just trying to do a generalized.

3 MR. POURCHELLI: If I'm correct and it's through an  
4 Exxon Valdez, after it got down past Kenai, there was a storm, I  
5 though, coming out of the northeast, which explains why we got  
6 the more skew down at the Shelikof Strait, where this under, as  
7 it says on top, typical summer condition where you don't have --  
8 the wind actually is, probably went in the other direction. Am I  
9 correct on that.

10 MR. NORTH: That's correct, heading out of the  
11 southwest.

12 MR. POURCHELLI: It's coming out of the southwest and  
13 then you've got a strong current running up and down the axis of  
14 Cook Inlet, dominating it.

15 MR. HAVELOCK: I think I rearrange my second question,  
16 which was whether you're taking a -- whether there is such a  
17 thing as a typical day when you have as many variables as you do.  
18 Or is a typical a misleading (indiscernible -coughing) for  
19 projecting where the spill is gonna be. For example, I was think  
20 if you laid a projection for each days of the summer, you could  
21 presumably end up with a multi-colored, or different shaded  
22 area to show some sort of a probability factor here. You've got a  
23 spill for one day and we don't know how many days suit that day  
24 and we don't know how many days would vary, very substantially  
25 from it. So, I'm wondering if there's a probability factor that you

1 can build into those projections to give a better idea how likely it  
2 is on the summer that you're going to get North Kodiak Island or  
3 whether it's gonna go up and fill up the upper part of Cook Inlet  
4 and so on.

5 MR. PARKER: I think, Counsel, typical -- the dividing line  
6 is when you have gale force winds. Gale force winds are not  
7 typical because that's why we call them storms. And, you know,  
8 they -- so when you have a storm, you're going to have to adjust  
9 to that. So, I think with a model like this you can crank the  
10 storm in easily enough, but typical does have a definition in  
11 meteorology.

12 MR. NORTH: For the purposes of this report, our model  
13 could replicate any sort of environmental condition. But, for the  
14 purposes of this report, we felt the best condition to depict  
15 would be those typical conditions that we have -- the typical  
16 wind and current conditions that we pulled out of the coast pilot  
17 and the current tidal tables. Over the course of a week or so, the  
18 winds do vary considerably and we've taken into account the  
19 percentage of how often the wind blows out of certain direction,  
20 at what strength. However, again, we don't take into account a  
21 storm, a freak storm. We didn't think that for the purposes here  
22 that would be enlightening. We wanted to show what is most  
23 likely to happen even though.....

24 MR. HAVELOCK: Well, that's my question. Is it most  
25 likely for that theoretical typical day, during the summer may

1 occur not at all, or maybe once or twice.

2 MR. POURCHELLI: But this is not a typical day, Mr.  
3 Havelock. What it is, sir, is this represents the distribution,  
4 correct me if I'm wrong Daniel, the distribution of average wind  
5 directions and average wind speeds over a time period. So, that,  
6 if you wanta call that probability distribution that's in there. The  
7 only thing it does not do, as you have correctly identified, sir, is  
8 if you put in an abnormality in the form of a storm, which is an --  
9 is not typical.

10 MR. NORTH: I might also add that the wind data we used  
11 is meteorological data that's been accumulated over a number of  
12 years that includes calm periods and storms. So, in a sense,  
13 they are included in there, but the typical average conditions  
14 over a period of time won't -- the storm conditions are included  
15 in there, but they're averaged out with the calm conditions and  
16 the fact that the wind blows from all different directions over a  
17 period of time.

18 MR. KEITH: I think one thing that has to be pointed out  
19 and the point is on the Exxon Valdez spill, that spill spread  
20 faster into a growing area that what we have on here. So if you're  
21 saying in the Exxon Valdez spill that hit Kodiak is more severe  
22 than what you're shown here, you're 100% right. And primarily  
23 that storm that started on, I think, the following Tuesday and  
24 ran for about a week and we had winds of 70 mph. So, those  
25 conditions are worse, what you really saw than what you see

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here.

MR. NORTH: Yeah. There were two storms actually. When the spill first occurred, it was calm for a period of about three days, I recall and there was a storm for about 12 hours where the winds blew about 70 knots. Then later on, as the oil got around the bottom of the Kenai Peninsula, there was another storm out of the northeast. Again, for the purpose of the report, I don't know -- I'm not sure what bearing unpredictable storms would have on it. The best we thought would be to get the representative, typical conditions, which includes storms and calm conditions.

MR. PARKER: I think to expand it to its ultimate level of sophistication, we do it on a monthly basis through the year and have 12 cycles. That also then take your 10 year storm, your 20 year storm and your 50 year storm and crank those in if you wanted to do your, you know.....

MR. HAVELOCK: Well, I.....

MR. PARKER: .....exactly what your whole range in spill probabilities might be.

MR. HAVELOCK: I suppose what I'm looking at is the use of this type of projection and I assume that the use has something to do with location of spill containment supplies, personnel and so on. And that's my question is to -- is that a correct assumption? Is that -- that is the use of this sort of thing. It's not just a pretty picture, but it is a method of figuring

1 out where you might put a containment resources. And if so,  
2 how many days a year would your placement of your  
3 containment resources be wildly inappropriate to the  
4 dimensions of the spill?

5 MR. SUND: Mr. Chairman, I would propose a second use  
6 of this is to say that in general sense of a large quantity oil spill  
7 in the water is gonna cause large damage. And whether it goes  
8 halfway down Kodiak Island or the whole way down, it doesn't  
9 really totally matter, but it is also useful to justify the  
10 expenditure of some time or money to try to prevent it from  
11 happening.

12 MR. WENK: Do you think it would be possible in your final  
13 report to include the actual Exxon Valdez spill coverage or  
14 compare it.

15 MR. KEITH: We sent that up to the Commission for  
16 validation. We'd be delighted to include that. Like we said, we  
17 had to adjust the model for those actual wind conditions and,  
18 indeed that was the worst case. We'd be happy to put that  
19 Valdez model there.

20 MR. WENK: I think it would be useful to have it.

21 MR. KEITH: We will do that.

22 MR. POURCHELLI: Any further questions?

23 MR. PARKER: i think another interesting point is the  
24 wind which put the oil in Shelikof Straits saved upper Cook Inlet  
25 to a large degree. How far the oil would've come up the Inlet

1 we'll never know since the wind started blowing at the right  
2 time.

3 MR. SUND: Kodiak would say it started blowing at the  
4 wrong time.

5 MR. KEITH: Next, Bob Schultz and Dick Willis will team  
6 up on the contingency planning.

7 (Tape Changed)

8 (Tape Number 89-11-14-3)

9 MR. WILLIS: First slide, please. Response capability  
10 depends on what sort of mechanical recovery systems you have  
11 available. The effectiveness of these systems in Cook Inlet and  
12 Cook Inlet Sound, which are the two areas considered here, and  
13 the effectiveness or possible use of other response methods,  
14 such as dispersants and burning and the effectiveness of  
15 command and control and planning procedures. Next slide.

16 MR. SCHULTZ: Joe, I think you're off one. It should be in  
17 Cook Inlet.

18 MR. POURCHELLI: This one, Bob?

19 MR. SCHULTZ: It says, uhm, no. On the idea of  
20 mechanical recovery systems and I will -- Prince William Sound.  
21 That's several ahead, but we're okay, I think. When you consider  
22 mechanical recovery systems, when you look at such things as  
23 contingency plans, current and new contingency plan for Valdez,  
24 the equipment is generally rated in terms of pumping capacity.  
25 one must be very careful in looking at these kinds of figures to

1 to determine true capability. The pumping capacity, that is the  
2 name plate capacity is generally pumping capacity of a skimmer  
3 with, perhaps with water and with no head, which is very, very  
4 optimistic. Skimming capacity would be considerably less than  
5 that. In some cases, we've gone to tested skimming capacities  
6 and in most cases these are not available. So, as a general rule of  
7 thumb and based on experience, our actual skimming capacity  
8 would be reduced to a factor of about a third. And actually, that's  
9 probably a bit optimistic. In my experience, very often  
10 skimming capacity, in these cases, may be -- that's the right one  
11 -- may be as little as 20%. That's based on both oil spill  
12 skimmers and industrial skimmers that are simply picking up  
13 waste oil on a routine basis every day.

14 The other thing that's very, very important there is  
15 encounter rate. Let me take time to give a very quick example.  
16 You may have a manufacturer of high capacity skimmers come to  
17 you and say that with a half a dozen of his skimmers at Valdez,  
18 he could have recovered 60% of the oil that was spilled, after it  
19 was on the water. This is something you must examine very  
20 carefully because generally the problem with the data is that he  
21 doesn't have sufficient encounter rate. In other words, he has  
22 six skimmers that have extremely high internal capacity to pick  
23 up oil, but he can't get to it fast enough. So you see that he can  
24 only go, perhaps at the very fastest, a knot and a half. He can't  
25 get around to get to this oil that's all over the place fast enough

1 to recover that sort of thing. So, that's one of the very important  
2 points about considering skimmer effectiveness.

3 Are we ready for another one there

4 MR. POURCHELLI: Yes, for connecting oil pumps.

5 MR. SCHULTZ: Okay. Let me, before I go to this one --  
6 you can just leave that up there for a minute -- discuss some of  
7 the factors that we have to consider particularly in Cook Inlet,  
8 when you determine how effective your skimmers are going to  
9 be.

10 First of all, the environmental conditions. Many people  
11 already have mentioned the extreme ranges of tides and  
12 currents in Cook Inlet. That is, say, 30 feet of tide and currents  
13 up to eight knots. This makes spill recovery very, very difficult.  
14 Containment boom generally fails, and by fails I mean oil will  
15 start to go under it when the component of the current  
16 perpendicular to the fact of the boom is about three-quarters of a  
17 knot. When you have a situation where you have six, seven, eight  
18 knots great periods of time, the containment boom will not  
19 really contain the oil. This does not mean that you cannot use  
20 containment boom at all. You just can't use it for all purposes  
21 that you use it in other places. In fact, the plan in Cook Inlet  
22 would be to deploy the boom in a U or a J formation and proceed  
23 down current with the oil and if the current is going seven  
24 knots, you go about seven and a half, or eight or so and still are  
25 able to recover oil. But, of course you understand that that limits

1 your options and the kinds of things you can do tremendously.  
2 For example, if you have high currents like that, you're probably  
3 not going to be able to boom off a great many sensitive areas,  
4 where the currents are running. One of two things will either  
5 happen. one is that the oil will go under the boom where you've  
6 put it there or the other thing is that the boom may fail entirely.  
7 I mean physically fail, come apart. So, that's one of the things  
8 that's very important in Cook Inlet. Another thing that is very  
9 important is that Cook Inlet is -- generally has considerable  
10 amount of ice in it all winter and everybody can see that right  
11 down here in Anchorage from the restaurants along the water  
12 front there. There's a lot of ice there. People tell me that ships  
13 continue to operate in Cook Inlet, almost all year, but there's  
14 always ice there. There's rafted ice and all sorts of, kinds of ice.  
15 Even though the large tankers can operate in there, and perhaps  
16 some of the very large supply ships that might be used for spill  
17 response, a great many other smaller boats and smaller craft  
18 cannot be used at all and that would limit your capability to  
19 respond. Okay, and, let's see here. The.....

20 MR. POURCHELLI: Still want that one? I'm sorry.

21 MR. SCHULTZ: That's okay. Why don't you just put up the  
22 one that shows -- just show the graph there is you would.

23 MR. POURCHELLI: Cook Inlet?

24 MR. SCHULTZ: Yeah. We've done some work and analysis  
25 in determining how much area that was covered by spill, could

1 be covered by mechanical recovery devices. If everything was  
2 going properly and under extremely ideal conditions, you could  
3 perhaps cover as much as -- well, it looks like maybe 18% of it  
4 using CIRO equipment only in Cook Inlet. As the oil spreads  
5 more than that, your capability goes down. One of the big  
6 problems here in equipment is that currently in Cook Inlet they  
7 have almost no place to store the recovered oil. So, if you were  
8 in fact recovering oil at that rate or covering an area at that rate,  
9 your storage capacity would be gone in a very short period of  
10 time, probably a few hours, certainly not more than a day. We'll  
11 put whatever else you have up there.

12 MR. POURCHELLI: You want Prince William Sound?

13 MR. SCHULTZ: Yeah. Okay. In Prince William Sound,  
14 their capability has improved tremendously since the spill. They  
15 have many large vessels, large supply vessels, barges and things  
16 like that so their capability has increased tremendously. That  
17 shows what could be done there under fairly ideal conditions  
18 and that is in the event that you respond very, very quickly.  
19 These facilities are available, which they are now since the laden  
20 vessels are escorted all the way up to the harbor.

21 MR. HERZ: Can I ask a question?

22 MR. SCHULTZ: Certainly.

23 MR. HERZ: It suddenly struck me again, seeing these  
24 figures for the third or fourth time looking at them. What  
25 assumptions do these make about the skimming capacity. This

1 is labelled name plate capacity?

2 MR. SCHULTZ: No, we were reducing that to about a  
3 third of name plate, 'cause in experience that's about what these  
4 things can do.

5 MR. HERZ: So that's taking the existing capacity, with  
6 the expanded Alyeska armada.....

7 MR. SCHULTZ: Yes.

8 MR. HERZ: .....and taking about 30% of their name plate  
9 capacity over time?

10 MR. SCHULTZ: Yes.

11 MR. HERZ: Thank you.

12 MR. KEITH: Let me add on to that. One of the things and  
13 I think -- Joe can you put the other graphic on very quickly,  
14 'cause I think it something the Commission can do a work.  
15 We're showing that it's important. You've got these oil spill  
16 resources in Prince William Sound, as well as Cook Inlet to have,  
17 especially in Cook Inlet, to make those resources at Alyeska  
18 available for a spill at Cook Inlet. Keeping in mind that these  
19 large spills -- the one we're seeing here is a million gallons or  
20 the Exxon Valdez at 10 million gallons, have a recurrence  
21 interval of 5-10 years. It would make sense to see what you  
22 could do -- we think as technicians for you, to make all the  
23 resources available you can in a very short period of time. And  
24 again, that has to be done very quickly. If something would  
25 happen at Cook Inlet, that those resources could come around

1 from Prince William Sound in numbers like 8-12 hours. Then  
2 that would be something to set in advance and perhaps at that  
3 time the Coast Guard would have to use their vessels or  
4 helicopters to escort the vessel, to free up those vessels in  
5 Alyeska. We think this is something very important, something  
6 that could be done fast, and I think that graphic really points it  
7 out.

8 MR. WENK: Quick question. When you site percent of oil  
9 spill area, is it easy to convert that to percent of oil spill volume?

10 MR. SCHULTZ: It's area covered -- not too easy, but we  
11 could probably do something like that. These things are based  
12 on encounter rate which helps a lot. Your -- the oil spill is likely  
13 to be broken extensively and how much of this you will  
14 encounter -- it may be very thick in some places and it may be  
15 almost non-existent in some places.

16 MR. WENK: Would the trimatic (ph) question be more  
17 one of the percent of spilled volume, rather than spill area?  
18 Because it's the uncollected part that does does ya dirt? I'm just  
19 asking a dumb question because I'm thinking about the part that  
20 you don't collect that is.....

21 MR. KEITH: Let me try to answer that.

22 MR. WENK: Against the environmental problem.

23 MR. KEITH: I think one looks at oil spills real quick and  
24 you see the area covered. You've gotta remember that it's not a  
25 uniform patch, especially down in Cook Inlet. That perhaps

1 80% of that oil would be in 20% of the area. So it's hard to tell -  
2 - it's basically a search and rescue type thing to find that. So  
3 when you look at where the spill, the transport model is, it  
4 doesn't mean because you covered that much area that you're  
5 necessarily gonna get the thick area.

6 MR. WENK: I understand that completely. But that  
7 doesn't answer the question.

8 MR. KEITH: Alright.

9 MR. POURCHELLI: Well, you have to get to the area to get  
10 the volume. (Indiscernible - simultaneous talking) you don't  
11 know where the volume is within that whole area, it's a little bit  
12 difficult to be able to tell you -- convert area to volume for you.

13 MR. WENK: But is it not from the point of view of  
14 potential damage to the environment and wildlife and habitat, is  
15 it not the volume of oil that is uncollected that's relevant?

16 MR. PARKER: John, maybe you can explain.

17 MR. KEITH: That's correct. I don't know what.

18 MR. SUND: I think it's probably both things Ed, because  
19 the potential damage to the environment also has to do with the  
20 quantity of oil that attacks or hits any one beach. So you have the  
21 same problem there if you have a million gallon spill and you can  
22 only recover 100,000 gallons of it, you've got 900,000 gallons  
23 floating around. The damage that would cause the environment  
24 also has to correlate with all that goes on one beach or on a  
25 hundred beaches.

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MR. WENK: Oh, absolutely.

MR. SUND: So I -- my assumption here, 'er internally, maybe I'm wrong, is that we're using given technology, technology available in the world today and the best recovery of any oil spill anyone's ever reported is 20% and this may say you can get into 18% of the area, but I don't think you're gonna get more than 10% of the oil picked up because my.....

MR. SCHULTZ: And we agree that Commissioner.

MR. KEITH: One of the things I think has to be said is Alaska's the most difficult spot and we looked at spots worldwide to pick up oil. So, it really says the prevention is key.

MR. PARKER: Well I think you pretty well nailed it in that area doesn't equate with volume, and volume recovered is always going to be less than the area you sweep. But you can only deal with area, because that's how the oil presents itself.

MR. SCHULTZ: That's right. You probably would like a better answer. This area is related to volume, but it's very difficult to determine exactly how. We could say this oil that we have here at a certain period of time, if it were -- if it spread out uniformly and it as a millimeter or a half a millimeter or something like and then we would show you this area and we could say okay this is the volume of oil that we will pick up. But, it doesn't work that way. In some places it's quite thick and it's in patches and wind rows and all sorts of things like that. And in some cases you may have a skimmer that is able to pick up a

1 very large volume of oil, very quickly because he's in an area  
2 where this stuff is really heavy. And at the same time, in other  
3 places, there may be very little and so you're maybe covering  
4 area without recovering a whole lot of oil. But I think these are  
5 fairly closely related.

6 MR. WALLIS: The answer to your question is no.

7 MR. PARKER: On this graph, does the peak of the total  
8 CIRO, Alyeska and clean seas, is that the mobilization.....

9 MR. SCHULTZ: Yes.

10 MR. PARKER: .....time when they're all there.

11 MR. SCHULTZ: Yes, that's shows -- CIRO, the Cook Inlet  
12 capability is perhaps the least of any in the area. And the help  
13 that they would get if it were available or made available by  
14 agreement from Alaska Clean Seas and Alyeska would be a  
15 tremendous help, particularly Alyeska because they have so  
16 much and, particularly, they have so much in storage capacity in  
17 these new barges they have there. CIRO is very, very short of  
18 storage capacity, in addition to other things.

19 MR. PARKER: What about the 48 hour mobilization time  
20 out of Valdez to Cook Inlet then as you show it there.

21 MR. HERZ: Doesn't that assume though that both the  
22 weather is very cooperative in terms of what you're able to skim,  
23 number one, and then number two that the weather is very  
24 cooperative in terms of letting you move equipment from  
25 Alyeska to Cook?

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MR. SCHULTZ: Yes.

MR. HERZ: And so, for winter, the probability of being able to do that is relatively low.

MR. SCHULTZ: Put your money on prevention.

MR. KEITH: In winter, the -- of course the oil will be contained by the ice to a certain extent, but the other thing is you won't be able to skim very much of it and the oil would also be transported by the ice and released in the summer time.

MR. SUND: We already know that we don't recover oil in the winter, especially after September 15th. That's not a factor.

RICHARD: I'm gonna spend a couple minutes talking about the contingency plans that are in place right now for combating oil. The -- and rather than talk directly about each one, I'd like to talk first about the fact about what we feel is inadequate about them, for the large spill. Now we are talking about the large spill of basically a million gallon pop. And the basic problems that we see is that the present contingency planning uses existing organizations with existing people and attempts to fight an oil spill in that manner. The second part is that they do not use what we feel is a credible scenario for planning. They are based on low volume, high probability spill events, whereby cleaning up the oil is not much different than what the norm -- what you would normally do for -- you're doing it for a short period of time. And the contingency plans are information based and there's very few action guidelines.

1 There's a lot of information in them that you would love to have  
2 in an oil spill, but there's very few guidelines from which to act  
3 upon.

4 MS. WUNNICKE: Will you accept questions? When you  
5 say present contingency plans, have you reviewed the Alyeska  
6 contingency plan.

7 RICHARD: Yes I have.

8 MS. WUNNICKE: Do you have the same comment with  
9 respect to that?

10 RICHARD: Uh, well we're looking forward to -- we may  
11 not be right up to date. I was looking forward to some of the  
12 scenario development that they're doing and some of their  
13 decision guides they talk about building. But until that happens I  
14 still think it's, in my opinion, is still a guideline, a bunch of  
15 information you can work from.

16 MR. HERZ: Did you review the state plan, the federal  
17 plan, the Alyeska plan, and the Coast Guard plan?

18 MR. SCHULTZ: The problem with the local plan is they  
19 forget some things about -- that happens in the large spill that  
20 we found in the Exxon Valdez. One, there's an increased  
21 complexity in terms of resources, management and manpower.  
22 There's an increased complexity in terms of duration, area  
23 covered, and environmental sensitivity. And the third and  
24 probably the most important one we've seen which you've heard  
25 about all day, there's a compressed time frame in which

1 decisions must be made and resources utilized. That time frame  
2 is a whole lot different when you're talking about 11 million  
3 gallons as when you're talking about 200 million -- 200 gallons.  
4 200 gallons, you have some time to figure out exactly what you're  
5 gonna do. In 11 million gallons, your decision today or this hour  
6 is gonna effect what you're gonna do the rest of the week. The --  
7 in the contingency plans that you all are going to be developing,  
8 we feel that they should have -- be based on credible scenarios of  
9 what might happen. The million gallon spill in the Yukon River,  
10 for instance, that Mr. Parker talked about this morning. And  
11 they should have credible solutions, what you expect that  
12 credible scenario to degrade to. Decisions should be anticipated  
13 on the basis of specific goals. What are your -- what are we  
14 trying to do? What are we trying to protect, which comes to the  
15 next point.

16 A complete prioritization of environmental and economic  
17 sensitivities in the area. What's the most important thing you  
18 have to do first and then to allocate your resources based on both  
19 that prioritization and the anticipated decisions that you've  
20 already done by creating the credible scenarios and credible  
21 conclusions.

22 Lastly, instead of as we saw before when the contingency  
23 plan was based on existing organizations, the last thing that  
24 happens in the contingency planning process is creating the  
25 organization as an outcome of those anticipated decisions and

1 the demands based on the credible scenario. I think Virg  
2 Keith's gonna talk about tankers here for awhile.

3 MR. WENK: Is this a good time to ask questions about the  
4 (indiscernible - fading). Let me just ask one because it's come  
5 up several times in presentations before the Commission and it  
6 has to do with constraints on contingency response. To be  
7 specific, there has been some observations that there was a  
8 reluctance to contain oil around a damaged tanker because of the  
9 potential hazard of the fumes being subject to accidental ignition  
10 and creating an explosion that would be a hazard to people and  
11 to the ship and so on and so on. There's also a tradeoff that the  
12 shippers have in terms of whether or not containment of the  
13 spill, in order to limit environmental damage, is given priority  
14 over safety for the ship. Did you look into these constraints.

15 MR. SCHULTZ: Yeah, I think that they have been part of  
16 an ongoing view of ours since the spill occurred itself. The  
17 question of whether it's the safety of the ship and your talking  
18 about the safety of the steel and the engine and everything else, I  
19 think that was completely secondary. I think the saving of the  
20 other 40 million gallons of oil that was on the ship.....

21 MR. WENK: Oil and the ship both.

22 MR. SCHULTZ: Well.....

23 MR. WENK: Sorry, I'm.....

24 MR. SCHULTZ: No, one is -- I think you can separate  
25 them. But I don't -- I think we feel that burning is one of those

1 issues that you have to bring out very early in the contingency  
2 planning process as you create your scenario. If you were gonna  
3 create a scenario of 11 million gallons off Bligh Reef that costs  
4 two billion dollars to clean up and we still have the damage that  
5 we have, I think that we might have made the decision of  
6 burning that thing very quickly. And I think that's where -- how  
7 you have to put that decision of the Exxon -- of burning that  
8 ship. You have to look at the conclusion of that and then say,  
9 what would you have done in that particular case. I think there's  
10 been a lot of people that said that if anybody had their druthers,  
11 they would have lit it off very quickly to try to get rid of that -- of  
12 the spill situation.

13 MR. PARKER: The -- I think we can get into this  
14 tomorrow, 'cause the staff has had intensive discussions on  
15 accomplishing both at once and creating in effect the dual  
16 response. One aimed at saving ship and cargo, the other at  
17 containing oil, which tend to be both loaded on the shipper at  
18 this time, under present rules and regulations. So, I think, you  
19 know, it's an intensive argument that I think we should probably  
20 save for tomorrow.

21 MR. KEITH: Alright, next I'm going to take the improved  
22 tanker design, and again Mr. Chairman we'll talk about -- I'm just  
23 going to tell you the areas that we looked at and we will save the  
24 details of it tomorrow if that's acceptable with the  
25 Commissioners.

1 First of all, now I think it's important that we get into this  
2 group here. So, thanks to your staff and the Commissioners  
3 themselves, we went through 2,000 pages of testimony from  
4 Cordova, Kenai, here in anchorage. We went through everything  
5 on the risk assessment, the risk assessment, the hazard  
6 assessment, all the contingency planning to come up with these  
7 ideas.

8 MR. PARKER: Excuse me, Virg, you don't wanta say  
9 anything about double bottoms, today?

10 MR. KEITH: I am, I'm getting into that.

11 MR. PARKER: Okay.

12 MR. KEITH: I just want to introduce this before we come  
13 on the tanker design. Alright. So we get into the various groups.  
14 So now, and you can see the third group is improve tanker  
15 design and then we'll work from the bottom up to just expedite  
16 this.

17 So the first thing that we come up with is this mandatory  
18 drug and alcohol testing. And the next is emergency and high  
19 risk training. And I think Capt. Elsonson (ph) talked to you  
20 about that before. Capt. Murphy testified to that effect down at  
21 Kenai. The next is the port closure system and I know  
22 Commissioner Sund recommended that. Possibly that could be  
23 done with a state agency as well as the Coast Guard agency -- a  
24 dual relationship, I'm thinking almost like the Federal State  
25 Land Use Planning Commission that we're used to. The other

1 one is the two person watch standing requirement. Now the  
2 two person watch standing requirement, that came from, again,  
3 Capt. Murphy and the NTSB on the reports on the Exxon Valdez  
4 where there was only one person on the bridge. It was the idea  
5 to have two. And then when Commission Sund came back it was  
6 also brought up by Meba and some of the other people there that  
7 that same philosophy be adopted to the engine room. So that  
8 was added on.

9 The next thing is improved loading and unloading  
10 procedures. And again, Joe Pourchelli spoke about that earlier.  
11 A great deal of the spills are at the terminals so you have to look  
12 at the terminals as well as that tanker. When that tanker's at  
13 that terminal, recognizing that terminal personnel as dictating a  
14 lot that happens on the tanker. So, those person are in the  
15 system, what Commissioner Wenk talked about and should be  
16 looked at.

17 The other things is this local spill prevention  
18 involvement. And I know Marilyn was working on this and I  
19 think also Dennis is. But we feel especially up here, because  
20 time is so important, you have to involve the local people in both  
21 the clean up and the prevention through citizens committees,  
22 those types of things, and again, I've heard testimony that forth  
23 in Cordova and in Kenai.

24 And then we're talking about the spill response  
25 equipment coordination. Again, and we interjected on that.

1 you've got a great deal of equipment in Prince William Sound.  
2 You have some equipment in Cook Inlet. When these events do  
3 occur that are fairly rare events and thank God they're fairly rare  
4 events, but you've got to muster all that equipment very, very  
5 early, very quickly to get it down to scene to even stand a  
6 change. And then, quite honestly, you don't stand much of a  
7 chance. But it's your best shot.

8 Now we go down into the group II. And those group I  
9 ideas are mainly institutional ideas. They're low cost ideas.  
10 They're something that could be done very quick and they have a  
11 fairly rapid payback. Now we go back down into group II, and  
12 these are -- now we're getting into some technology. We're  
13 getting into longer terms and some more costly items. One is  
14 the vessel monitoring system and that certainly has been kicked  
15 around for 15 years. The other -- and this is a mandatory vessel  
16 monitoring system in both Cook Inlet as well as Prince William  
17 Sound. The other is a mandatory traffic separation lanes with  
18 one way traffic in the tight spots (ie: Valdez narrows). the other  
19 is designated anchorages. And again, you saw that on Joe  
20 Pourchelli's area for both Cook Inlet and Prince William Sound.  
21 And then we have emergency response pollution control vessels.  
22 And then, again, improved loading/unloading design. We're  
23 thinking that when you come along, perhaps they'll be new  
24 design features on the terminals that one would wanta adopt. In  
25 other words, it's a dynamic situation that one would come into.

1 And that is going to take a longer period of time. That may take  
2 two to maybe five years to institute, but it has a fairly high  
3 payback. You'll see in Dick's things, without stealing his  
4 thunder, when we come in to look at the payback for that we're  
5 looking at reducing numbers like 40% of the accidents with  
6 group II. Where the group I we're looking at numbers like 15%  
7 and then final -- and I'm going to come into this and I guess  
8 we'll discuss this more tomorrow, we've got the group III  
9 design, which is improved tanker design. Now that has a fairly  
10 high payback because now we're making that vessel so it's more  
11 resistant to these accidents, so should this accident occur, the  
12 vessel itself will be able to withstand some of the grounding  
13 events, the collision events, so if it happens you don't  
14 automatically have a release of cargo. So, we're putting our  
15 money into the vessel itself. Please Joe.

16 So, we look in six different areas on the improved tanker  
17 design. One is double hulls, definitely the most controversial  
18 issue of all. The other is a centralized bunker tanks. And again,  
19 we've got schematics in the report all the way through. The  
20 other is the automatic cargo control systems. The four item is  
21 auxiliary thrusters so we're saying, instead of a twin screw vessel  
22 where you've got both of your screws and your rudder at the  
23 stern of the ship, look for a single screw vessel. In other words,  
24 maintain the efficiency and the safety of the vessel, but put the  
25 thruster up forward in the bow where you've got 800-1000 feet

1 away and you don't have something like the DC10, where we've  
2 got three hydraulic systems, but there all in the tail of the DC10,  
3 right by the number 2 engine. So if something happens to the  
4 number two engine, we destroy all three systems. And the other  
5 that we think is very key is this precise navigational system. So  
6 this is the vessel monitoring system, as well as display on the  
7 vessel of the ship where he can -- where that person running  
8 the ship can look at the screen, the CRT, find out if he's in that  
9 traffic lane or not. He sees that icon on the ship. It's green if  
10 he's in the traffic lanes, everything's all right. The minute it gets  
11 outside of the traffic lane, it turns red. So it makes it very visible  
12 to the person on the bridge of the ship as well as the person  
13 monitoring shoreside.

14 And another thing came up and this was from the Cordova  
15 fishermen, that vessel monitoring systems should be manned by  
16 masters and, I know all the Commissioners heard this  
17 testimony, not necessarily Coast Guard personnel, but people  
18 that are out there that have handled large tankers that have  
19 experience with it so that the state pilot on the ship with a  
20 master knows that that person he's talking to has experience  
21 with that vessel. Very similar -- we're looking at this would be  
22 similar to the way FAA would control aircraft.

23 And the last thing, again, we're stressing safety, is  
24 improved life boats. I happen to feel, and I know my partner,  
25 Joe Pourchelli, capsized in a lifeboat. The lifeboats that we have

1 for the people on these ships are horrendous. So we just added  
2 that to look again at all three areas: environmental protection,  
3 efficiency, and safety. And we'll go into those in more detail  
4 tomorrow, or I'm prepared to do it now, if you want. But I know  
5 you're running behind time. And the last one Joe.

6 While Joe's putting that up, we looked at three versions of  
7 double hulls for you, for the Commission, so the Commission  
8 would have a wide range of choice. We've got a Type I double  
9 hull, which is the double hull that would be required for the  
10 most dangerous chemicals to protect it. That is described in the  
11 report. A Type II double hull which is a lesser category. The  
12 Type II double hull has a beam (ph) 15 double bottom with a  
13 double sides of equal to about 30 inches. And then a design that  
14 Joe Pourchelli and I came up with where we're looking at a beam  
15 (ph) 15 or we're looking at about an eight to 12 foot double  
16 bottom, double side wrapped all the way around the skin of the  
17 ship. So, it's an entire double hull wrapped on the -- double  
18 sides as well as double bottom and again, with a dimension of 8-  
19 12 feet.

20 You've got two designs in the report. You have a 70,000  
21 ton Cook Inlet crude carrier and a 250,000 ton Prince William  
22 Sound Crude carrier. And we looked at those two designs to  
23 attempt to see what the costs would be for a conventional vessel  
24 of that size, such as the vessels operating there now and then  
25 one of this beam (ph) 15 double hull design. And again, for the

1 entire category, we're looking at improvement of about, in cost  
2 increase, of about 10% to go to these improved tanker designs.  
3 And again, to give you a ball park figure on that, on a 250,000,  
4 the new ship would be around \$175 million, so we're looking at  
5 an increase of about 15 million, 15-17 million. Down at the  
6 other end of the scale, for Cook Inlet, we're looking at a 70,000  
7 tonner of around \$90 million so that cost increase for each  
8 vessel would be about \$8-9 million. So that gives you the cost  
9 increase for both ends of the spectrum.

10 And again, I'm prepared tomorrow to go into detail on  
11 each of those subsystems that are in the report.

12 And then finally, having given Dick the cost on the  
13 tankers and the rest of it, I'll turn the rest over to Dick Willis.

14 MR. WILLIS: Very good. If we can have the first slide,  
15 Joe. As Virgil said, we looked at the transportation system  
16 modifications that would be applicable to Prince William Sound  
17 and Cook Inlet and attempted to put them within a system that  
18 would allow us to do some further analysis to develop costs --  
19 what their costs would be and also what their effectiveness  
20 would be. One of the things that you should be, as Virgil  
21 mentioned, we should be very aware of is Group I and Group II  
22 basically are modifications that prevent the accident, whereas  
23 the major force of the tanker design in Group III prevents the  
24 spill as a result of the accident. So that what you'll be seeing as a  
25 combination are the reduction in spill events because of the fact

1 that we reduce accidents, and also the reduction in spill events  
2 because of the fact that our improved tanker design will not spill  
3 as often as the existing design.

4 These are the costs that are associated with those groups.  
5 Basically, those costs have ben broken down into acquisition  
6 costs, which are basically those costs that would be -- have to be  
7 upfront money to purchase either equipment and/or services to  
8 put these systems in place. The annual operating costs are the  
9 costs of either maintenance or personnel required to operate  
10 these systems and then there are a third category, some vessel-  
11 specific costs such as in Group II is the on-board vessel  
12 monitoring system, precise navigation system and display.  
13 These costs are developed in a number of ways based on either  
14 engineering designs and engineer calculations based on what we  
15 felt the ship was gonna cost, as Virgil just went through. And on  
16 similar activities we have undertaken or similar organizations  
17 have undertaken. It's been translated into both cost per barrel  
18 of the total modifications and cost per gallon. You'll see in Cook  
19 Inlet we're estimating that the costs associated with Group I  
20 modifications are 70 cents, 'er seven cents per barrel; Group II  
21 modifications, about 21 cents per barrel, and Group III  
22 modifications about four cents per barrel; for a total of about 32  
23 cents a barrel. That translates into a little less than a penny a  
24 gallon.

25 MR. SUND: On the gallons, are those gallons of gasoline

1 or gallons of total product?

2 MR. WILLIS: This is basically a standard type of gallon of  
3 about 7.2. We have basically just decided -- the barrels that you  
4 have to convert to that, either gasoline or crude, and that's been  
5 converted at 7.2 to the ton.

6 MR. KEITH: So, it basically assume there's 42 gallons to  
7 the barrel, so it's just simply dividing by 42, so the entire  
8 amount transport, not just the.....

9 MR. WILLIS: it doesn't make any -- it's not per gallon. I'm  
10 sorry.

11 MR. SUND: Thank you.

12 MR. WILLIS: I didn't understand the question. Okay, next  
13 one, Joseph. The same figures for Prince William Sound show  
14 that the total cost for the system for group I, II and III are six  
15 cents a barrel and a little less than two-tenths of a cent per  
16 gallon. Notice the vast difference because obviously the vast  
17 difference in throughput of oil through the Valdez port, through  
18 Prince William Sound.

19 We then looked, by using a port design safety model that  
20 we have developed over a number of years and applied in this  
21 case at what type of reduction in oil spills we felt we could get  
22 from each of the system modifications. You see from this chart  
23 that we expected 14% -- that Group I will reduce the accidents  
24 by 14%; Group II modifications will reduce it by 41% and Group  
25 III modifications will reduce the accidents by 55% of the

1 remaining accidents. If you do that on a cumulative basis, you  
2 can see that we are projecting that we are going to reduce the  
3 accidents in these ports by 77%.

4 MR. WENK: Question. It's a matter of semantics. You say  
5 reduce the accidents?

6 MR. WILLIS: Reduce the oil spills.

7 MR. WENK: Okay. Isn't it -- isn't most of your improved  
8 tanker design related to the double hull which is -- which  
9 reduces the consequences of an accident, but by itself isn't it  
10 true that the double hull does not reduce the probability of the  
11 accident?

12 MR. WILLIS: Yeah, we're talking about a reduction in oil  
13 spill. Group I and Group II is, I mentioned are basically reducing  
14 accidents as their major focus, where Group III is reducing the  
15 consequence of the accident.

16 MR. KEITH: Let me pick that up. The answer to that is  
17 no. And when I looked at the improved tanker design, we  
18 looked at the six features. We do have the double hull. Obviously  
19 that prevents the consequences. We put on auxiliary thrusters,  
20 so essentially it gives us the capability.....

21 MR. WENK: Excuse me, then have you separated out  
22 those two in Group III. you've got Group I and II separated out  
23 into it's components. Wouldn't it be interesting to separate out  
24 Group III into the same components you just described so that  
25 we can then turn and tell which of Group III are accident

1 prevention and which are consequence mitigated.

2 MR. KEITH: What we've done on all of these is tied right  
3 back to the oil spill. So we present the numbers to the  
4 Commission that are strictly oil spill. So, in other words, on the  
5 first group we know that one in seven accidents would result in  
6 an oil spill. We've already taken account for that because we're  
7 strictly talking about oil spills, not about accidents. So that's  
8 already taken care of in the numbers. So we know that if we  
9 have one out of seven collisions would result in an oil spill, the  
10 numbers you see up here are strictly oil spills at the top. So it's  
11 going right down to the bottom line in looking only at oil spills,  
12 not at accidents or not at groundings or anything else. We're  
13 looking at that total number of oil spills and going after that.

14 MR. HERZ: Where'd you get those numbers?

15 MR. KEITH: The number of oil spills?

16 MR. HERZ: Reduction. What -- I mean, I don't see a  
17 rationale in the report on how you made that step.

18 MR. KEITH: We can do a couple of things. We can go into  
19 that tomorrow in some detail, how we attacked on each part of  
20 the accident in using the real time simulator that I think  
21 Commissioner Sund has. I know Commissioner Parker is well  
22 aware of, as well as Commissioner Wenk. So it's a combination.....

23 MR. PARKER: I hear voices from your fellow  
24 commissioners saying, do it tomorrow.

25 MR. KEITH: Are you ready for the next one, Dick.

1 MR. WILLIS: Yes. This basically tries to add a graphical  
2 field to the fact of both reduction in accidents and the fact of  
3 when those accidents will occur in terms of time, showing that  
4 Group I modifications will take a much longer time than --  
5 Group III modifications will take a much longer time, especially  
6 as new tankers are built and put into service. Okay, Joseph.

7 The end result of applying these modifications to the  
8 port, you can see in Cook Inlet -- and this is a summary of all  
9 spills from 300 gallons up to the largest spill in Cook Inlet. You  
10 can see that we, in applying the modifications, we've had the  
11 effect of increasing the recurrence interval that you expect to  
12 have an accident in from 2.5 -- oil spill in, excuse me -- from 2.5  
13 years to 9.2 years. And the same for Prince William Sound, if you  
14 show it Joseph. In Prince William Sound we're projecting that  
15 recurrence interval goes from 1.7 years existing to 5.5 years  
16 with Group I, II and III modifications. Showing that in a  
17 different way in the increase in the safety of the port itself.  
18 Calling the safety of the port right now in Prince William -- in  
19 Cook Inlet as being one. The increase in -- or the change in the  
20 port safety index for Cook Inlet would be for Groups I, II, and III  
21 modifications onto the system and improvement of about 3.6  
22 times over what we have now. In Prince William Sound, that  
23 improvement would be about 3.3 times. And I thank you very  
24 much for your time.

25 MR. PARKER: Okay. Thank you.

1 MR. SUND: Mr. Chairman we are gonna have time  
2 tomorrow to go into the essence of how they go to those  
3 numbers?

4 MR. PARKER: Yep.

5 MR. SUND: Okay. thank you.

6 MR. PARKER: The -- Virgil do you have anything more to  
7 present at this time?

8 MR. KEITH: I think the only thing I wanta say is that the  
9 cooperation that we've had from all involved, Mr. Chairman,  
10 especially your staff -- we know Mr. Havelock was out early and  
11 handled the simulator and helped set it up and then several of  
12 the Commissioners were out and then Dennis Dooley came right  
13 at the end and made sure that everything was on track and  
14 Marilyn sent us a number of material that we've had that we over  
15 as coming up with the ideas. And we again, just want to thank  
16 the Commission for allowing to do us, and thank your staff ,sir.

17 MR. PARKER: Okay. We'll hear from Mr. Lathrop now,  
18 and then after that, why we'll get into a discussion of this so that  
19 everyone will know what the idea of the discussion being what  
20 we want to hear from tomorrow. Why don't you sit right down  
21 there. I'll bring -- are you gonna use the view graph.

22 MR. LATHROP: I would like to use a view graph.

23 MR. PARKER: Okay, fine.

24 MR. LATHROP: I'd like to speak from here if that's okay.

25 MR. PARKER: No, that's fine.

1 MR. LATHROP: And Mr. Chairman, I have some handouts.  
2 Mr. Chairman and members of the Commission, I'm pleased to  
3 be given the opportunity to speak here today. My name is John  
4 Lathrop. I'm an independent consultant. I have been employed  
5 by the Commission to review the work of ECO, but more  
6 generally to review the process by which the technical data  
7 being developed for this Commission is used to develop a  
8 defensible basis for decisions made by the Commission.

9 What I will be focusing on today and now is a brief review  
10 of the ECO which we've just heard about. Specifically, I will be  
11 laying out an analysis flow chart, trying to see how well that  
12 report and that work takes us from the data that we have to what  
13 would be an adequate technical support to the Commission for  
14 their decision. Then I will discuss the ECO report in terms of  
15 further things that we might need to fill in that flow chart to get  
16 from the data-base to the technical support for the Commission's  
17 decisions.

18 The analysis flow chart I've developed is based largely on  
19 the scope of work as laid out by the commission and the early  
20 work done this summer in defining what should be done by  
21 contractors to the commission. As you can see, in the upper left  
22 we start out with the data having to do with accident rates and  
23 oil spill responses going through the hazard analysis, resulting in  
24 the locations, volumes and probabilities for oil spills. Then, what  
25 is termed a risk analysis. I would say this is simply the

1 modelling of the oil spill to depict in the maps which you see at  
2 the end of the ECO report, the extent of oil spills versus time.  
3 And then something which was not treated as systematically as  
4 related in the flow chart, in the ECO reports and the emergency  
5 response as it acts to create the mitigated impacts from the  
6 spill.

7 To some extent, the results of the ECO work comes down  
8 to emergency response doesn't make much different. If you  
9 have the spill, it's gonna hit sensitive resources and I think  
10 that's a reasonable conclusion to make from the data. But, you  
11 should go further than to say that prevention is the key to say  
12 that prevention is the key and maybe we should look at the  
13 contingency plans to see if they're -- if they can be oriented in  
14 particular ways to defend particular environmentally sensitive  
15 areas and what decision making structures can we put in place  
16 so we have a responsive and adaptive emergency response  
17 system to make the best use of what resources can be made  
18 available.

19 So, going through this flow chart we see what ECO did  
20 was develop basically the impacts from the existing situation.  
21 Then there was development of system modifications based on  
22 the data and one of my comments about the report is it was not  
23 clear in the report how the system modifications were  
24 developed or identified. I heard from the presentation today  
25 that they seem to be based largely on the results of the hearings

1 that have been conducted so far. The system modifications then  
2 were evaluated in terms of what they would cost, what their  
3 implications are in terms of tanker safety and safety of the  
4 transportation system, and the implications in oil spill response  
5 to then basically re-run the whole sequence of hazard analysis,  
6 risk analysis and so forth and so on, to get the mitigated impacts  
7 after the system modification. Now to some degree, this is  
8 idealized and its not entirely clear from the report how this was  
9 done, though I understand from conversations with Virgil Keith  
10 that this is effectively what was done in evaluating what the  
11 system modifications did to reduce the impact.

12 Now, the most important -- from my point of view, as a  
13 decision analyst, the most important part of this chart is the  
14 output, which is presenting to the Commission a systematic and  
15 simple representation of what the risk reductions are and what  
16 their costs are so that the Commission has a basis for them to  
17 relatively clearly make the tradeoffs between what this is gonna  
18 cost and what we're going to get, given that this much cost is  
19 invested in terms of risk reduction. So, the question now is, did  
20 the work done under the auspices of the Commission result in  
21 this basic type of framework to support the Commission in  
22 making its recommendation

23 I have several points which will be laid out on these slides  
24 and are available on the handouts and in a slightly longer 3-page  
25 version of text. There's about 14 points. The first four are

1 essential, missing elements in the reports. These things that  
2 may have been done in the course of the work, but they are not  
3 presented in the report in at least a clear enough way for me to  
4 determine that they were adequately in support of the  
5 Commission's work.

6 The first is the risks, as presented in the ECO work are  
7 basically in terms of probabilities and oil spill extents as a  
8 function of oil spill location and size and time from the spill to  
9 one day, seven days; and in one case 28 days.

10 If we are evaluating the emergency response system, it  
11 would seem to me that we should be looking at that risk in  
12 terms environmental damage and the mitigated impact. Now,  
13 I'm speaking here as -- a decision analyst, you know, is about  
14 how you try to support decisions made by a policy-making body.  
15 I'm not speaking as a person who is familiar with what can be  
16 done with emergency response systems in Cook Inlet and Prince  
17 William Sound. So the point in my making this point is that this  
18 is something we should discuss perhaps in the course of our  
19 work shop over the next day or two.

20 We have to do something like this, presenting risks in  
21 some form besides the probability in an oil spill extent, if we're  
22 going to be evaluating the effectiveness of contingency plans and  
23 plan modification. Again, the general gist and focus of the ECO  
24 report, and this is not quite doing it justice, 'cause I'm reducing  
25 it to about one sentence is, no matter what, if oil spills on the

1 water is gonna hit the shore, this is bad news. Let's focus on  
2 prevention. And I think that's actually largely true. But we  
3 should be looking at things that could be done on the  
4 contingency planning and in case those may be effective. And by  
5 the way, they may wind up being cheaper than enforcing a  
6 double hulls on tankers.

7 On the second point, we should discuss the importance of  
8 resource defense and contingency plan. It's been demonstrated  
9 fairly clearly, I think, that to send your emergency response  
10 resources to the site of a large spill and have them start to clean  
11 that up, you may hope to collect five, 10 or 15% of the oil. Most  
12 of the oil spilled is going to get to the shore, so perhaps your  
13 emergency response resources and equipment and decision  
14 making and manpower, should all be oriented toward scrambling  
15 toward resources to be defended, not the oil spill site itself.  
16 Again, this did not come out in the ICO report and it is the  
17 subject that we should be discussing. We have to do this, again,  
18 to evaluate the effectiveness of the contingency plan and any  
19 modifications we may want to suggest for those plans.

20 The other two missing elements, again one of them  
21 focuses on contingency plans -- the scope of work for the study  
22 calls for a systems analysis of the contingency plans, evaluating  
23 their sufficiency and capability of response management  
24 structure and decision-making processes and the ability of the  
25 plan to function as a guide and advisor. We have heard some

1 general conclusions from ECO in that direction, but we haven't  
2 hear a systematic analysis of what needs to be done in order to  
3 bring those plans into compliance with this ideal.

4 Also, it's fairly well established in the emergency response  
5 literature that there is a need for drills and exercises with  
6 contingency plans. Again, this is something that was not brought  
7 out in the ECO report and if it should be there, we should have it  
8 there and discuss that in the next day or two.

9 Finally, the point having to do with the importance of  
10 whether or not there should be a requirement for double bottom  
11 hulls on tankers and this is a point -- it would be good if ECO  
12 could enlighten us on the net reduction or increase in risk by  
13 the double hull system. And this has to do with if you have the  
14 most, the largest spacing between the inner and outer hulls, you  
15 do reduce the capacity of the tanker, so you increase the number  
16 of port calls. So now the question is, with that larger spacing,  
17 do you increase the number of port calls by enough that in fact  
18 you may increase the risk or what is the net change in risk,  
19 taking into convone (ph) the fact that the double hulls will  
20 decrease the spill, given a collision or a grounding, yet the  
21 double hulls will at least with one of the versions would increase  
22 the number of port calls and therefore increase the probability of  
23 a grounding for a particular volume of throughput in Valdez.

24 To look at the flow chart then, we see that these four  
25 points focus around the emergency response mitigated impact

1 and around the characterization of what the system  
2 modifications would do in terms of the net change in risk and in  
3 terms of what changes we might wanta make on the contingency  
4 plan.

5           Going next to another set of points on the ECO report.  
6 There's several of them which I would characterize as simply  
7 points of clarification. By the way, with almost all these points,  
8 I've been in telephone conversation with ECO and in some of  
9 these cases I've been satisfied as much as I could from a  
10 telephone conversation that these points were addressed in the  
11 course of the work, but simply don't happen to appear in the  
12 report. So the report, as a basis for policy making,. should be  
13 expanded in these directions.

14           First of all, to explain how the system modifications were  
15 identified. The overall thrust of the ECO report is to take these  
16 system modifications, see how much they reduce the risk and  
17 see what they cost and present those results to the Commission.  
18 Therefore, it is very important to make clear, did we look at all  
19 the system modifications that we should have. Did we look at a  
20 range of modification including ones that might've been too  
21 extreme and would simply be not to be cost effective, given that  
22 the bottom line or the conclusions of the report have to do with  
23 the cost-effectiveness at some level, perhaps not dollar for  
24 dollar, but in some sense the cost effectiveness for the system  
25 modifications we should be clear as to have we been complete in

1 nominating those system modifications for consideration.

2 Point #6, present a rationale for spill location from sizes.  
3 Actually, they have spelled out why they arrived at particular  
4 sizes, but it's not clear from the report how they arrive at those  
5 locations. I know from conversations with Virgil Keith there's a  
6 certain amount of logic that went into identify the spill locations,  
7 but those should be presented to people to consider.

8 Point #7 is present the rationale for the recommended  
9 number and location of emergency response vessels. Perhaps  
10 that was in the report. I didn't catch it. It simply mentioned  
11 that there should be two in Cook Inlet placed in particularly  
12 places and that the existing number of vessels in prince William  
13 Sound is adequate. That should be spelled out.

14 In the back, about 1/3 of the ECO report lays out the  
15 extent of the spills for, in one case it's for one day and one week  
16 and for another case up to four weeks. And in order to make  
17 those understandable to people like me and perhaps members of  
18 the Commission, we need some discussion on the significance of  
19 those times to the spill extent. That significant would cover  
20 such things as the effect of weathering on toxicity, the effect of  
21 weathering on the ease of cleanup; and maybe most importantly,  
22 what emergency response measures become feasible with a long  
23 enough lead time. That is, you can do things with 28 days lead  
24 time, you can't do with a seven day or a one day sort of lead time.

25 This has been brought up just before my talk that we need

1 some explanation of the calculation that the oil spill reductions.  
2 And it would be good to present those reductions separately for  
3 each modification so some decisions could be made to  
4 recommend some modifications, but not others. Again, in  
5 talking on the phone with Virgil Keith, there is a logical sort of  
6 methodology which ECO followed, but we should have that  
7 presented and discuss it. It would be good to see that laid out  
8 line by line, or modification by modification so we'd have the  
9 basis for deciding well perhaps we shouldn't recommend all of  
10 Group II or all of Group III, but recommend only a particular set  
11 of them that seemed to be most effective, if the data will support  
12 that.

13 I'll present the rationale and data sources for the cost  
14 estimates. Point 10 stands by itself. Point 11, to discuss the  
15 differences between the nominal tanker, which was developed  
16 for the two tankers, which were developed, and the expected  
17 fleet that would result from regulations set.

18 Now this is somewhat of an unclear point, but we should  
19 address the fact that the risk reduction stated in the ECO report  
20 were based on the two particular tanker designs. What'll happen  
21 in the real world in terms of what fleets would come into Prince  
22 William Sound and Cook Inlet as a result of the regulations is  
23 another question. And that should be discussed. If, in fact, the  
24 Commission's gonna be considering the possibility of regulation  
25 for the tankers.

1           Finally, and this has been mentioned before my talk, that  
2 ECO did run their models and simulate the Exxon Valdez spill  
3 and that should be in the report. We'll be going over that.

4           Finally, just a couple of points, almost simply on report  
5 writing. And that is to present some graphics to clarify the risk  
6 reduction numbers which I see they've already started to do.  
7 And some linking up of those probability reductions and the oil  
8 spill extents which you see in the back of the report. We see  
9 that there's these large black parts of Cook Inlet and Prince  
10 William Sound. Particular days delays and sizes of spills and  
11 location of spills, it would be good, again, from the point of View  
12 of the Commissioners or people like myself to say, aha, with this  
13 Group I modifications reduce the probability by this much. What  
14 sort of spills are we talking about in terms of what does that  
15 reduce probability mean in terms of where those areas go. Now,  
16 I would assume again, once we -- if we can start looking at  
17 different emergency response measures. Some may be effected  
18 at the 28 day and the seven day level, but could not be affected at  
19 the one day level. So we would look at differential sorts of  
20 effects over the different time delays on the oil spill extent.

21           And finally, this point was brought out to me by Mike  
22 Herz. who on the phone says, there's no summary to this report.  
23 We should put that in too.

24           That's the extent of my talk, a critique of the ECO report.  
25 If there's any questions, I'll entertain them.

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MR. HAVELOCK: I like it.

MR. LATHROP: thank you.

MR. PARKER: Okay, thank you Mr. Lathrop. We have 25 minutes to discuss this if the Commissioners would return to the table please. And I would like the discussion to focus on what we wish to hear from these gentlemen tomorrow, both ECO and Mr. Lathrop on -- tomorrow as we get into these discussions. I have a note here from Mr. Sund I have to answer. Counsel, perhaps you can lead off and explain the relationship of what you heard, since you liked it so much.

MR. HAVELOCK: Well, the reason I like it did point out some areas which I suspect that Virgil can comment on where he anticipates doing some more work. I think it's important to remember in this -- it reminds me of why we're not doing a draft EIF on our report. That is, we're laying something out here for everybody to shoot at and I think that Virgil and the ECO group expect that and I anticipate that the function that he would explain and would appreciate his and it allows him an opportunity to improve his report as he moves from the draft to a final.

MR. KEITH: Absolutely.

MR. HAVELOCK: So, I -- would you agree that there are some points there that you probably want to address?

MR. KEITH; No, I think all the way through. John Lathrop has called, advised us of this. Obviously we were

1 developing this kind of on the run to meet that deadline of yours  
2 and I think these things, John had the figures at the end and I  
3 asked Dick Willis to do that so you saw the graph and we  
4 presented in different form, and we certainly -- I don't see  
5 anything that John has presented that would give us any  
6 problem in meeting those comments in the final rept.

7 MR. PARKER: I would like some explanation on the  
8 sensitive areas focus the Department of Environmental  
9 Conservation is spending \$600,000 on contingency plan and  
10 that is not going to result in contingency plans and sensitive  
11 areas are a part of final contingency plans. I'm at sea as to where  
12 we get into sensitive areas. John.

13 MR. SUND: No, I just had another point. I'll follow after  
14 he answers that question for you.

15 MR. PARKER: I'm just not sure where sensitive areas  
16 came into this.

17 MR. SUND: Maybe my observation here -- it began to  
18 strike me after Fish and Game was testifying here today in  
19 writing these contingency plans out that there really is two  
20 different scopes here, right. I mean their whole discussion was  
21 where do you place boom to keep oil from getting into a  
22 sensitive area, protection of habitat in other words, and, with  
23 John's questioning, well how does their role counter with DEC,  
24 they said DEC's in charge of stopping pollution. So if DEC wants  
25 to use boom to corral the oil, fish and game wants to use boom to

1 keep the oil from getting into their sensitive area and hope to  
2 God someday it'll disappear. It'll either pass by, not show up, or  
3 go by very quickly and keep going to somebody else's back yard.

4 MR. HERZ: But DEC doesn't care about whether the oil is  
5 there other than the fact that oil is there other than the fact that  
6 it's a resources.

7 MR. SUND: I'm just saying that I wrote down those notes,  
8 sometimes two or three hours ago and Lathrop comes up and  
9 points out, I think again just emphasizing it that in your  
10 contingency plan, where are you gonna go. Are you gonna run off  
11 to boom off the hatchery or are you gonna run out and try to  
12 boom off the spill. And maybe there's a way you do both, but you  
13 oughta at least think about where your line of attack is. And I  
14 know the guys at Prince William Sound Hatchery down at  
15 Biswack, when they heard about it, they bought a bunch of boom.  
16 They didn't care about where the oil was, they were booming off  
17 the hatchery. I mean that was there first reaction.

18 So I just - for you guy working on contingency plans, I'm  
19 planning to keep the oil out of the water myself. That's my  
20 focus.

21 MR. HERZ: But, my point when I interrupted you, my  
22 point was the sources are a damn both because if it weren't for  
23 them we wouldn't care about the oil being out there in the water.

24 MR. SUND: Well, we never have up until the Exxon  
25 Valdez.

1 MR. PARKER: Well, in defining sensitive areas, one  
2 reason we've had such a great discussion on dispersants is  
3 between those who wanta protect the beaches and those who  
4 wanta protect the water column, but when you talk about Prince  
5 William Sound you are, in effect, talking about a totally sensitive  
6 area. The -- there's very few parts of the Sound which either  
7 Fish and Game or the Fish and Wildlife Service is not going to  
8 put an emphasis on when it comes to the water column which is  
9 why they had such difficulties in working out Zone 1, Zone 2,  
10 and Zone 3 for dispersants. There was some classic battles  
11 involved in that and several years spent in working it out. The  
12 same applies to Cook Inlet. My friend, Mr. Flagg, in the back of  
13 the room, one of the outstanding, most knowledgeable people on  
14 Cook Inlet and it's resources. Possibly there are some areas in  
15 the upper Inlet, would you say Loran, where -- that are a little bit  
16 sterile, but there's very few places in the lower inlet that you  
17 don't have a.....

18 MR. SUND: Out here off the dock.

19 MR. PARKER: .....high necessity to protect the water  
20 column. So, that's kind of why I'm at -- I understand this  
21 debate, but I'm still somewhat at sea as to where we're going to  
22 get into it tomorrow and the reason I'm bringing it up so  
23 everybody can think about it overnight and kind of get their  
24 arguments lined up as to where the Commission should involve  
25 itself in this particular area.

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MR. WENK: Mr. Chairman.

MR. PARKER: Ed.

MR. WENK: First of all, I think what's been presented here today is enormously useful and I think it -- the Commission is confronted with the question of what does it mean. Because, and Mr. Lathrop I think underscored this right off the bat by saying he's coming at this from the point of view of decisions, which the Commission has to make. And it strikes me as having listened, read the reports and listened to these presentations, that we're not quite at that stage where the Commission can indeed make the kinds of decisions that it's going to be confronted with. And I'm not sure how to do this at this stage because time is so short, but here is a suggestion at least. I wonder if it would be useful if, having had the benefit of these presentations, if each commissioner would identify the kinds of decisions that Commissioner thinks ought to be made on the basis of this input of data and analysis. And what may yet be missing that would give them a high degree of confidence in coming to some kind of a conclusion.

I'll share right off the bat my own feelings in this regard. I was impressed with taking some of this risk analysis, the three decimal places without having any indications of what the uncertainties were and without having any statement of what the assumptions were and I don't believe the assumptions could be stated to three decimal places. But the fact of the matter is the

1 methodology isn't there. You used it, Virgil, but it's not in the  
2 report that -- and it isn't just satisfying a Commissioner. This  
3 report is gotta stand up before a peer jury of potentially hostile  
4 readers and my feeling is that there -- that the kind of  
5 methodology that was used needs to be explained in a good deal  
6 more detail in order for at least this commissioner to have  
7 adequate confidence. Now you know I mentioned this to you in  
8 Annapolis and again in a special phone call. I think though that  
9 what one Commissioner feels isn't the point. The question is  
10 what are the decisions the whole Commission needs to arrive at  
11 and along the lines of the gaps that Mr. Lathrop identified, I  
12 think that it would be feasible to identify these such that ECO  
13 could then go back and complete the job they've done so well at  
14 this stage, but in a timeframe within the Commission can look at  
15 a final product and arrive at some kind of conclusions. I'm not  
16 sure, speaking only as one, that we're ready to do that and it's  
17 the kind of highly technical detail that I'm not sure the  
18 Commission needs -- is prepared to deal with. It's the kind of  
19 thing that I believe staff are in a far better position to evaluate  
20 and respond to.

21 MR. PARKER: Madam Vice-Chairman would you take over  
22 for a minute. I.....

23 MS. WUNNICKE: Sure.

24 MR. PARKER: .....feel we're getting into a gyra (ph) again.

25 MS. WUNNICKE: Any response to Commissioner Wenk.

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Counsel.

MR. HAVELOCK: Yeah. I think that the proposal for the agenda was that we would make some tentative decisions. I -- Commissioner Wenk's entirely correct. You're not ready to make final decisions on anything. But in lieu of the time sequence that we're dealing with, the time limitations it seems to me and what is set out for the next two days, you've got a, you know, some proposal that I have made of tentative areas to go into that you may be willing to say yes this looks like maybe the recommendation we're gonna make. You have the opportunity to back off at the next meeting, saying we don't have the data-base to, or whatever, to support this or not enough facts. And I might add, I don't think everything depends on the ECO report at all. I mean, you've been listening to hearings. There's a whole lot of information that you as Commissioners have that go well beyond the scope of this technical report, which you'll remember it's a technical report to support what you otherwise might be doing, rather than being a substitute for the judgement of the Commission.

MR. WALLIS: You can look at that another way too, you know.

MR. HAVELOCK: So, we get the guidance. What?

MR. WALLIS: We can go ahead and make the decisions and have 'em back us up.

MR. HAVELOCK: I assume to the extent that you make

1 these tentative decisions and they work up improvements in  
2 their report, that that's exactly what'll happen, although I'm  
3 trusting their trusting their scientific integrity. I'm sure that if  
4 further data causes them to change their mind, they will no  
5 doubt tell you.

6 MR. KEITH: All I can say, Mr. Havelock and maybe Joe is  
7 right here, we've got the most extensive data-base in the world;  
8 over 20,000 casualties. We've got the real time simulator that  
9 you've handled, that Commissioner Sund has handled. We put  
10 the best available technology available -- sure, we're gonna admit  
11 it's not perfect. They're estimates on this thing. We pushed it a  
12 long ways to take these groups to kind of -- which is the  
13 direction that you originally prodded us on when you can into  
14 Annapolis early in the game is we broke this into groups because  
15 we knew in that time frame it was impossible to say, take one  
16 group at a time and run that through the simulator and get any  
17 meaningful data as well as through the data base. So we kind of  
18 presented that as a Group I additions, and I think  
19 Commissioner, originally we had them called phases and  
20 Commissioner Sund changed that to Group to indicate they  
21 could all start at the same time. We're very, very confident in  
22 those numbers. Now, it's based on the simulator. It's based on  
23 the real time simulator. It's based on the data-base. It's going  
24 back and each of those improvements that we've stated in there.  
25 Whether that be in tanker design and the vessel monitoring

1 system and so on down the line. We've laid those costs wide  
2 open and sent the report to anyone around that's had it. If  
3 somebody disagrees with those figures on the vessel monitoring  
4 system or on the tanker design or anything else, they're free  
5 right there to challenge. You know it's got extensive publication.  
6 Now if you say you want more data on how we come up with the  
7 14% reduction within that group, sure we can go through and  
8 show you have it attacks the data base. But basically we've got a  
9 computer data base that ECO has developed and maintained over  
10 15 years. We do it for the -- run the data base for the United  
11 Nations for OTA. We just completed it for GAO on the testimony  
12 down in Kenai. And we can show you how it comes in and it  
13 attacks those data bases, on that data base for only the oil spill.  
14 Again, we tried not to complicate this with looking at collisions  
15 and grounds and saying only one out of the seven collisions  
16 resulted in oil spill. And again, we talked with Mr. Havelock in  
17 this early. We went right to the oil spill, so you're dealing with  
18 oil spills in each and every group.

19           Somebody was saying we should give the Commission  
20 more alternatives. Well, we looked at the three alternatives. You  
21 look at Group I, you can get that improvement with, your word,  
22 Esther, on institutional changes almost at no cost to do those  
23 things. In fact, we're happy. We look out there now in Prince  
24 William Sound and also Cook Inlet, a lot of those are being done.  
25 In fact, a lot in Group II are being done. That, to me, says a lot

1 for the type of things that we're doing in there. So then, Group  
2 II has a higher cost. If the Commission decides nope, Group II  
3 is too expensive, we only wanta stop at Group I, we tried to leave  
4 it that way. At the same time, we're ready to admit the most  
5 controversial, the toughest one is Group III. And maybe there's  
6 other ways to do that. So if one wanted to only stop at Group I  
7 and Group II, you could and see that improvement and stop  
8 there.

9 And then with regards to that contingency planning, I  
10 think that was the subject of a whole additional report that we  
11 sent up on the 30th of October that I know Commissioner Herz  
12 just got today.

13 MR. HERZ: No, I still haven't got it.

14 MR. KEITH: I gave you my copy.

15 MR. HERZ: This isn't contingency plan. This is.....

16 MR. KEITH: This is the equipment that would go in  
17 there.

18 MR. HERZ: Right. But still, I didn't know -- I don't know  
19 that anybody on the Commission has seen the contingency plan  
20 element that you've done.

21 MS. WUNNICKE: Is there a third.....

22 MR. HERZ: Is there a separate report.

23 MARILYN: Is that what you gave me Virgil?

24 MR. KEITH: Yeah, we sent that out to staff on the  
25 addition of comparing the contingency plans and that kind of

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things. I thought that the staff may wanta re-do that.

MR. PARKER: Didn't that get passed out to all the Commissioners?

MR. WENK: No, I don't think any of us have seen it.

MR. KEITH: So, we tried to do that early so it gave the staff and people a chance so that at least we weren't responsible for holding up the progress.

MR. WENK: Well, excuse me. Virgil you understand that there isn't a single number you've provided that I've questioned.

MR. KEITH: Absolutely, sir.

MR. WENK: What I believe I would feel, speaking again as an individual, more comfortable with is if you did simply explain the methodology that you used. Now Mr. Lathrop several times I think leaned favorably toward what you did with certain assumptions with regard to that methodology, but then footnoted it by saying it was not in the report. And I think I heard that several times. And I think what would add some confidence in terms of your conclusions which you, I know want us to agree with, would be if you told us how your arrived at it.

MR. KEITH: Fine.

MR. WENK: You don't want us just to say, trust us. I'm sure you don't wanta say that.

MR. KEITH: Absolutely not.

MR. WENK: Okay.

MS. WUNNICKE: Mr. Chairman, as the lease, technically,

1 expert person on this panel, I would like to say that I agree with  
2 Counsel. This is very valuable to us, but I don't think it dictates  
3 the Commission's decision. We have a wealth of experience  
4 sitting on the panel. We have had reams and reams of testimony  
5 from knowledgeable people so I'm interested in a reasonable  
6 foundation I think, for reasonable decisions and so I'm  
7 comfortable with what we have.

8 MR. KEITH: Commissioner Wunnicke, what we tried to  
9 do is all the way through is we recognize that decision. We're  
10 out here as your technical experts, not to make any decisions,  
11 just to line them up in groups and not even to advocate various  
12 positions. For instance, on the double hull that Commissioner  
13 Parker talked about, we talked about the three ranges. We  
14 talked about the Type I, the Type II, again being careful not to  
15 advocate any one. Then we took the new one that appeared to  
16 be on the horizon that Mr. Pourchelli and the rest of us put  
17 together and we decided, well let's expand that one because that  
18 one hasn't been done before. All the other ones are out in the  
19 rules and regulations and the Code of Federal Regulations. Here  
20 is a brand new alternative that the commission -- and the key  
21 word is may, may want to consider. Again, and we try to be very  
22 careful just to kind of present the alternatives just as suggestions  
23 to you.

24 MS. WUNNICKE: Thank you.

25 MR. HERZ: I think what -- Mr. Chairman. I think where

1 this report and the information that you've presented today has  
2 sort of placed me relative to making decisions is someplace that  
3 perhaps Commissioner Sund has been for a long period of time.  
4 He's been poo, poohing the response stuff since.....

5 MR. SUND: No, no, I left it up to you to deal with.

6 MR. HERZ: Well you bailed -- you personally bailed out of  
7 it. I think that what particularly.....

8 MR. SUND: I was assigned to a different task.

9 MS. WUNNICKE: Gentlemen, gentlemen.

10 MR. HERZ: But, as particularly been demonstrated in he  
11 last 24 or 30 hours of what we have heard here has made it  
12 more and more apparent to me that the response side can be a  
13 very, very expensive way to go and we see that that is the  
14 decision that Alyeska has made or the community has  
15 contributed to Alyeska's making. And a tremendous amount of  
16 money, I think 27 million dollars is the number that sticks in  
17 my memory. That seems like a fairly sizeable upgrade. And the  
18 question is the cost effectiveness of it. And I think what we're  
19 gonna have to cope with here, over the next couple days as we  
20 go through the workshop and move into trying to decide what  
21 recommendations we're going to make and which ones are  
22 gonna be the most important ones, is weighing of cost  
23 effectiveness. My colleague, Mr. Sund has already made his  
24 decision that, I don't know if he would give us a dime for the  
25 response side. He's gonna put all of his dollars into prevention.

1 But I think that this information has made further concrete that  
2 feeling that has been evolving and that we now are at a place  
3 where you've given us some fairly concrete date, although I agree  
4 with Commissioner Wenk that some of those rationales and how  
5 you went and made the steps need to be in here because we're  
6 gonna be shot at, particularly if we come out saying that  
7 response expenditures don't seem as justifiable as prevention,  
8 we're going to be shot at by a very heavy artillery.

9 MR. KEITH: I think one thing -- and you heard it from  
10 Fish and Game and we were delighted that Bob Schultz -- I know  
11 most of you is literally one of the world's experts on prevention  
12 and oil clean up equipment, joined us on this. We tried to make  
13 a point though that can't be ignored. In other words, we think  
14 on the small spills, the Commission gave us direction to look at  
15 large spills. Our smallest spill was a million gallons. Then up  
16 into 10 million; then in the case of the 70 million. That's  
17 certainly in the small spills that's needed. And you certainly  
18 have to give it your best effort. In other words, you heard it from  
19 Fish and Game. I think, you know, there could be cases. For  
20 instance a spill in Port Valdez, which is very logical, right at the  
21 terminal itself; in that case it's very possible you could close off  
22 the narrows and attack it from the narrows on in and keep it  
23 from going out in Prince William Sound. So, while it's hard to  
24 put a number on that, you can't do it on these large spills. We're  
25 saying and I think that's why we stressed that, and that's why it's

1 a total subject of a separate report that we gave you is that we  
2 think it would be a mistake to throw up your hands at that. In  
3 other words, the effort that you're seeing Alyeska doing now is  
4 certainly what we feel is a necessary step. We think the people  
5 can't be deceived in thinking that if Exxon Valdez, if we had that  
6 accident right today we don't feel the results would be much  
7 different, because unfortunately, Alaska doesn't have this ideal  
8 conditions. And this came up during the testimony at Kenai. So,  
9 realistically, you're gonna have days out there like today when it's  
10 gonna be darn hard to pick that up.

11 On the other hand, you be lucky like on that good Friday  
12 and hit a day that was "atypical" when it was just flat calm and  
13 you could make a significant progress on that.

14 MR. HERZ: That's the second time you mentioned us  
15 closing off the Arm. What's the width of the channel there and  
16 what's the tidal current ?

17 MR. KEITH: it's about 900 yards to Middle Rock and  
18 another 900 yards on the other side, so we're looking at  
19 approximately a mile, nautical mile. Now the current in there is  
20 about a knot. So if we divert the boom, Mr. Schultz that -- the  
21 glossy you're looking at is the glossy perpendicular to the boom.  
22 So if we could the boom at an angle, perhaps we could do  
23 something under certain kinds -- right up in Port Valdez itself,  
24 as opposed to Cook Inlet which has much higher currents or  
25 other places in Prince William Sound.

1 MR. HERZ: But in terms of the sensitive habitat  
2 protection kind of notion, that may be the kind of upgrade that  
3 might be doable. You might have to manufacture a totally newly  
4 conceived of kind of boom that's deployed in a different kind of  
5 way. It's be more like a semi-tidal gate or lock or something.  
6 And there may be a number of places where a solution like that  
7 might be used. But, when some of us at least, were thinking  
8 about the upgrade that would be implemented or could be  
9 implemented to save resources that protect sensitive habitats,  
10 that's the kind of stuff that we were talking about as putting out  
11 as something that you could actually put a cost on and figure out  
12 a reduction in damage, potential damage.

13 MR. KEITH: I think Chairman Parker mentioned that  
14 earlier. We think that there should be -- you know there hasn't  
15 been any R&D in this area for basically the last 10 years. Bob  
16 Schultz testified to that. There should be a mounted R& D to  
17 look at this and we also on the Commission in addition looking  
18 at dispersants is looking at chemical non-dispersants. New ways  
19 to attack this. Now, unfortunately, that's not going to be  
20 something that's going to be available within the next year or  
21 probably within the next five years.

22 MR. SUND: I think, Mr. Chairman, just to clarify my  
23 position a little bit here that I have not really advocated not  
24 doing the response work here. I think I - Fish and Game kind of  
25 gave me a little different approach on it today and I think I tend

1 to agree with them that there is a lot of work that could be done  
2 to get ready to protect sensitive critical habitat area. I think you  
3 still have to figure out how to pick it up, but where my great deal  
4 of frustration has been is the emphasis that is being placed on  
5 response versus the emphasis that's being placed on prevention.  
6 I don't see any movement by the industry, or the Coast Guard or  
7 the regulatory agencies or anybody else really, large effort to  
8 prevent. I see a lot of effort getting ready to pick up, other than  
9 the escort vessels. I will toss that in, that's somewhat of a  
10 prevention aspect.

11 MS. HAYES: Yeah.

12 MR. SUND: So I think that's just an emphasis. Besides, I  
13 was put in charge of trying to prevent these things, so I advocate  
14 my point of view.

15 MS. WUNNICKE: Mr. Chairman, Mr. Sund's just saved  
16 himself from disassociating myself from him. I take this view  
17 that if I were in an elevator that was falling, I would still try to  
18 jump up just before it hit the ground and.....

19 MR. PARKER: In getting back to sensitive areas, we heard  
20 Fish and Game say that they found, I think it was 160 new  
21 salmon streams in Prince William Sound in their survey, they  
22 didn't know about despire going in there for 30 years.

23 MR. SUND: The fishermen knew about it Mr. Chairman.

24 MR. PARKER: The fishermen knew about it. They  
25 regularly poaching them. But, the point I'm making is I'm not

1 quite sure -- again, that's what I want you to think about is where  
2 does the Commission come on this. You know, I worked for  
3 three years turning out regional profiles on this state and then  
4 fish and game, you saw what their documents were. And my  
5 colleague and I turned out a lot of documents dealing with these  
6 particular areas, and it's a big state and there's a lot of sensitive  
7 areas, so other than saying contingency plans could protect  
8 sensitive areas, where do we go? Meg.

9 MS. HAYES: I think it would be an improvement from  
10 what I understand the current state-of-the art in Alaska of  
11 contingency plans is. They have had, at least the ones we know  
12 about, identified within the plants. Up until.....

13 MR. WENK: The ones meaning sensitive areas.

14 MS. HAYES: Sensitive areas. I mean until the wreck of  
15 the Exxon Valdez it sound as though the contingency plans were  
16 mostly expected to be telephone trees of notification of who  
17 does what and start pulling out for containment of the oil, if even  
18 that far. But not yet gotten to the stage of where do we want to  
19 protect? And I think that some recognition of that, even the  
20 ones that we know now, realizing that that's -- our knowledge is  
21 going to increase would be an improvement on existing rate  
22 contingency plans.

23 MR. WENK: Mr. Chairman, I'd like to strongly support  
24 this position of my colleague, here. And I think that there's  
25 already been a start made in that direction in this identification

1 of Group I, II, III in terms of sensitivity and, as I understand it,  
2 using dispersants and so on. But I think that Mr. Lathrop's point  
3 just nails home the fact that in the few short hours you've got,  
4 and I think ECO makes this point very well in terms of how  
5 swiftly the response has to be enacted. That in the few short  
6 hours you have, some very important tactical decisions have  
7 gotta be made in view of the fact that you can't do everything at  
8 once any way, even if you had all the stuff there, number one.  
9 Number two, you have the inevitable desire to do everything and  
10 the only way you keep your head is by some rehearsals in  
11 advance. And this, it seems to me, is where you bring out the  
12 sensitive areas once more. Fish and Game might resist  
13 identifying the particularly sensitive areas in saying we need all  
14 of Prince William Sound as, Mr. Chairman, you said earlier. But I  
15 suspect if you told 'em that you're gonna be limited in resources,  
16 you have to make a choice; really force 'em to say you can't cover  
17 everything. Now then, with this much resource, what do you  
18 do? And this is where you've got to the sensitive areas. Then,  
19 we have more resources, what's the next thing we do. That  
20 gives a totally different direction then, to the contingency  
21 response people. Then if it's going out there, doing everything  
22 everywhere and succeeding in doing nothing.

23 MR. PARKER: Meg.

24 MS. HAYES: Mr. Chairman, I realize that I should probably  
25 wait until tomorrow for this question, but I'm afraid I'll forget it.

1 Yesterday, when we were having testimony, I can't for the life of  
2 me recall off the top of my head who said it, but somebody  
3 mentioned that the reason there are escort vessels in Prince  
4 William Sound and Puget Sound is because the bottom  
5 configuration doesn't allow anchoring in the case of the loss of  
6 power. And my question is, what is the situation in that regard  
7 with respect to Cook Inlet?

8 MR. KEITH: In Prince William Sound, the depth of water  
9 is such that anchoring is prohibited. So if anything happens, you  
10 don't have a change at anchoring. You've got to get that escort  
11 vessel over site. Cook Inlet is such that anchoring is an  
12 alternative. You do have high currents. It's a difficult maneuver,  
13 but it is an alternative. So in that point of view, Cook Inlet is a  
14 plus. That anchoring to be considered is one of the means by  
15 which to hold the tanker.

16 MR. PARKER: With a follow on to that of our two day  
17 session with the Cook Inlet shippers, which I didn't attend all,  
18 but which Dooley did, why the Cook Inlet Shippers were quite  
19 strong on that anchors are there first defense. That's why they  
20 don't use tugs in Cook Inlet, they use anchors in place of tugs.  
21 And I'm not an experienced enough mariner to debate that  
22 particular point with them. We were just -- Meg asked about  
23 Cook Inlet and why, and escort vessels and so forth and anchors.  
24 Do you care to expand anything on what I just said?

25 MR. DOOLEY: I'm sorry I walked in.

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MR. PARKER: Forget it. We'll do it tomorrow.

MR. DOOLEY: Mr. Williams from CIRO is here.

MR. PARKER: Yeah, but he's not a mariner either. I'm not gonna make him put on a captain's hat. He's a fisherman, but....

MR. \_\_\_\_\_: (Indiscernible) said by the mariners at that meeting and, in fact, anchors are a viable alternative. There was some discussion about the technique (indiscernible) you have an old laden tanker moving at a certain speed either because of tide, current or because its (indiscernible) the anchor has to be dropped very slowly to slow the vessel down (indiscernible). But most people felt, at least the mariners felt that with guidance of the pilot and the master that (indiscernible) I heard a comment recently about whether anchors could be deployed, whether they'd work or not. (Indiscernible) Kenai Pipeline Facilities anchors were used every time the tanker lands. So those anchors were in working order right here in Cook Inlet, 'cause they use the anchors to slow them down so they will not impact the dock at a high velocity. It's a common maneuver used by the tankers currently.

MR. PARKER: And the way they slow 'em down is they bounce it along the bottom just the same way sail boat skippers do so they don't rip their anchor off. John.

MR. HAVELOCK: Mr. Chairman, I'd -- this is a fascinating discussion, but I would recommend that you close it out and get

1 Harry Bador for (indiscernible).

2 MR. PARKER: Yes, I was just going to do that. Thank you  
3 gentlemen, and we'll see you all tomorrow.

4 MR. WALLIS: Now why didn't you say that when we were  
5 approached lunch.

6 MR. PARKER: Harry, come on up.

7 MR. BADOR: I have yet another installment on the daily  
8 SeaGrant paper. If you wanta.

9 MR. SUND: Is this a new one or a re-write.

10 MR. BADOR: This is a new one. This is the contract.

11 MR. PARKER: Okay, Harry. For the benefit of the  
12 audience, this is Harry Bador. Harry's a natural resource  
13 professor at the University of Alaska, Fairbanks. When he's not  
14 teaching, he's an attorney, but he would rather teach.

15 MS. WUNNICKE: I thought he was a trapper.

16 MR. PARKER: Right now, this winter, he's a trapper, but  
17 he can't get across the Yukon to his headquarters camp.

18 MR. BADOR: Well, it's 56 below in Eagle last week. I'm  
19 betting on it's solid now.

20 MR. PARKER: Okay.

21 MR. BADOR: Also for the benefit of folks as to who  
22 SeaGrant is, University of Alaska, Fairbanks is a SeaGrant  
23 institution and it's director is Ron Dearbourn who put this group  
24 together. The group coordinator is Zigmund Flauder (ph) who is  
25 currently the environmental law professor at both Harvard Law

1 School and Boston College Law School. Also involved in Allison  
2 Reasor who is the director of the National Maritime Law  
3 Institute and is currently at Yeal and Ralph Johnson who is a  
4 professor of national resources at the University of Washington  
5 Law School in Seattle.

6 Basically, what the goal of the research team was is to put  
7 together a strategy for a comprehensive oil spill prevention and  
8 response system that'll coordinate and supervise planning and  
9 contingency operations and enforcement and establish a  
10 streamlined command hierarchy. Our concerns in establishing  
11 this system was foremost to stay clear of pre-emption  
12 challenges, to insure that the state is powerful enough to exert  
13 substantive control and at the same time incorporate and be  
14 sensitive to local community needs. Three, to be effective in  
15 controlling the industry and efficaciously in supervision and its  
16 monitoring and its enforcement as well as maintaining the  
17 power of emergency requisitioning and the ability to direct  
18 industry clean up and prevention activities.

19 And finally, our goal was to achieve a unitary approach  
20 which, of course, the focus of this commission is on tankers, but  
21 the idea is that tankers are not alone the problem. The problem  
22 is the development and trans-shipment of oil in the state of  
23 Alaska and pacific waters. And as such, whatever institution or  
24 recommendations or modifications that are made must be able  
25 to be flexible enough to be able to adapt to the needs to regulate

1 the oil industry along the pipeline, along the production centers  
2 of the North Slope, in terminal operations, as well as tanker  
3 operations, and potentially of offshore development and drilling.  
4 Because, oil is going to be the problem and whether you have a  
5 spill along the pipeline corridor or a spill in Bristol Bay or a spill  
6 on the tundra of the North Slope, you're gonna be impacting  
7 people.

8 And just as a slight digression, I'd like to point out, we do  
9 have spills along the pipeline corridor. Between 1979 and  
10 1983, 1.5 million gallons was spilled along the pipeline corridor  
11 and one of the main problems is that there are leaks that cannot  
12 be -- Alyeska cannot detect leaks less than 2,000 gallons per  
13 minute. The Still Creek spill, which is 658,000 gallons, Alyeska  
14 can't be held responsible for because it was sabotage, but the  
15 inability to locate the site of the sabotage, and detect it, was a  
16 problem. The Atagin pass spill, which fouled 30 miles of inland  
17 stream and repairing environment, was detected by accident by  
18 an Alyeska employee because he smelled hydrocarbons in the air.  
19 And if the detection system promised by Alyeska that could  
20 detect a bullet hole, or a hole the size of a bullet in the pipeline,  
21 is an employee's nose, we have a problem.

22 MR. WENK: Excuse me, did you say 2,000 gallons per  
23 minute.....

24 MR. BADOR: Two, according to the DEC Fairbanks office,  
25 they cannot detect leaks less than 2,000 gallons per minute.

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MR. WENK: per minute. Thanks very much.

MR. BADOR: Now, in fashioning our proposals, it is our sincere belief that the fisheries and oil are Alaskan resources and it's incumbent upon Alaska to find and implement a solution and a strategy for their own wise use and regulation. Thus, what we aim to do is to identify the attributes of a comprehensive and consistent system which usually finds its manifestation in the federal regulation, and apply it to an Alaskan forum. And the fact is that we feel that Alaska, if it is bold enough and creative enough, has the power to fashion its own regulatory scheme to effect appropriate controls over the oil industry and prevent these types of things from happening in the future and, failing to prevent them, to be able to respond more appropriately to a spill, if it does occur. As a result, we have a list of 10 reports which we're submitting over a period of several days in which we are dealing with a recommendation for improved oil spill prevention regulatory system, which involves a task force; the problems of institutional conflicts; the ability of the state to petition for federal rule making under the Administrative Procedures Act, that you've already received; a pre-emption analysis; the ability to have an emergency resource mobilization system; some judicial remedies to the courts of equity; and then, finally what I'll be talking a little bit more on today as time goes down, is the interstate compact as a potential vehicle.

And now it's my point is that when we talk about rule

1 making petitions on the Administrative Procedures Act, we talk  
2 about a Citizens Advisory commission and oil regulatory task  
3 force or interstate compact, these are merely strategies to  
4 implement the overall goal which is effective regulation for the  
5 prevention and then improved response of oil spills. So, of the  
6 three strategies, we have no preference, except for perhaps the  
7 citizens advisory commission/governmental or Governor's Task  
8 Force. That might be the most preferably and politically  
9 powerful. But others include the rule making and don't sell  
10 Rhodes short, and the potentiality of a compact. I'll just quickly  
11 go through the idea of an oversight task force and a citizens  
12 advisory board and a joint review panel and goal setting that  
13 Ralph Johnson developed.

14 The duties of a task force would be -- first of all it's be  
15 lodged in the Governor's office and it would be the oversight of  
16 state/federal and private oil and gas activity within or near the  
17 state. An important function would to assure that the state and  
18 federal agencies are carrying out their duties with regard to spill  
19 hazards, either from the pipeline, from terminal facilities, or  
20 tanker operations. The task force would contract for  
21 appropriate studies to be completed. The task force would have  
22 responsibility to assist the state and specifically the governor on  
23 recommendations that should be made to the Coast Guard, to  
24 the Congress on federally pre-empted issues such as vessel  
25 design. The task force should advise the Governor on needed

1 state legislation. We're not preempted by the feds, covering  
2 such matters are creation, implementation of contingency plans,  
3 optimum areas where tankers should pick up pilots and routes  
4 and so forth.

5 Another aspect of this regulatory scheme would be a  
6 citizens advisory council. Now one of the problems we have with  
7 citizen committees, generally, is that they're initially effective  
8 'cause there's a lot of motivation there to get down and regulate.  
9 But over time, because of their lack of legal power, they tend to  
10 be ignored and participation declines.

11 Well, some of the key attributes which we feel would be  
12 necessary to provide the necessary motivation and power are as  
13 follows: The committee should have subpoena powers both for  
14 persons and for documents. These subpoena powers would  
15 extend to relevant Coast Guard personnel and files.  
16 Alternatively, congressional bill can create and empower  
17 committees to instruct the Coast Guard to cooperate with the  
18 committee. These meetings, deliberations, files and the entire  
19 process of the committee should be public and available to the  
20 press and the appropriate state and federal officials and to the  
21 Congress. The experience in the San Francisco Bay Conservation  
22 Development Commission is very instructive on this. The  
23 committee would also be authorized to conduct investigations  
24 and make findings and recommendations. These  
25 recommendations would normally carry out -- would only carry

1 political weight and that they would not have the power to be  
2 adopted by the federal or state agency or by the industry.  
3 However, committee recommendation that are not adopted  
4 could be used on sort of the lines of Northwest Power Counsel to  
5 enjoin agency conduct until a reason justification pointing to  
6 compelling circumstances and premised upon a specific finding  
7 of fact is published within either 90 or 120 days. This is not a  
8 new or innovative idea. I wanta compare it to the fact that we  
9 already have that kind of authority through a compact  
10 commission in the pacific northwest. You can also look to  
11 Columbia Gorge Commission which exercises veto power over  
12 forest service conduct.

13 You've received the preemption analysis by Allison Reasor  
14 and the plotter work yesterday, so I'll just quickly go over the  
15 inter-state compact for about two or three minutes and then  
16 open myself up for questions.

17 The inter-state compact is an idea which is sometimes  
18 helpful because it transforms state power into federal power.  
19 The consent to Congress by -- of a compact does that  
20 transformation. And with the compact, you no longer worry  
21 about preemption. You no longer worry about impairment of  
22 inter-state commerce and supremacy challenges because the  
23 powers that the compact would encroach upon, thereby creating  
24 that problem of preemption or inter-state commerce is  
25 consented to by the Congress. Therefore, congressional consent

1 transforms and federalizes the regulations promulgated by the  
2 compact. Now, in order to ensure that these powers aren't later  
3 truncated, a compact would have to specifically detail the realm  
4 in which it would find itself acting and what tools it would utilize  
5 when you go before Congress and say, here, consent to us.  
6 Congress would never consent to a blind slate.

7 The other advantage of contracts is that generally they  
8 provide greater local accountability, their compact  
9 representatives can be accessed much like state representatives,  
10 which is sometimes more beneficial than trying to go through  
11 the elaborate channels of a bureaucracy, and they also increase in  
12 many ways the responsiveness to the state. There is -- I go  
13 through in this compact assessment what's involved in a  
14 compact and what you need to include, but that's not necessary.  
15 You can look through that or ask questions at any time.

16 Our proposals for the use of compact involve three main  
17 possibilities that invoke ten recommendations. Our  
18 recommendations are the adoption of a response equipment  
19 inventory system which also monitors equipment readiness and  
20 maintenance; the development of a comprehensive contingency  
21 plan incorporating all effected parties to stimulate a streamlined  
22 and coordinated command structure; the creation of a single  
23 mission enforcement unit to establish an entity with oversight  
24 authority concerning Coast Guard standard settings; to invoke  
25 technology forcing provisions which mandate the application of

1 spill prevention and recovery innovations when they become  
2 available; to adopt strict crew size and qualification standards; to  
3 adopt an emergency requisitioning authority; to develop a pre-  
4 authorization procedure for decision-making on exigent  
5 circumstances such as burning and dispersant use; and to  
6 implement on-site and on-tanker surprise inspection authority  
7 vested in the appropriate state regulatory agencies.

8 It's important to note that both the Washington and state  
9 regulations -- the state regulations which were stipulated away  
10 by the ray of the Atlantic Richfield case, and many of the  
11 Washington provisions which were loss in the ray of the Atlantic  
12 Richfield, would theoretically be able to be applied through a  
13 compact. And we talked about the dedicated funds problem. A  
14 compact is a delegation of federal authorities so you would be --  
15 if the compact delegated that power, the resource assessment  
16 charge or risk assessment charge, then the state could exercise  
17 it as a delegation of federal power.

18 For that, I'll open myself up for questions for the next 10  
19 minutes.

20 MR. PARKER: Okay. Thank you, Harry. I liked what you  
21 set here of the inter-state compact is a potentially valuable  
22 instrument for ensuring Alaska's rightful place as chief architect  
23 for resources planning management, which, up til 1978 is an  
24 area I think we're really aiming for and since then seems to have  
25 leveled off and kind of taken the status quo which has led us into

1 our present sad state. But, John.

2 MR. SUND: Yeah, Mr. Chairman, just sort of explore a  
3 little bit hear with Mr. Bador on inter-state compacts. I though  
4 of the idea of some connection of the west coast states more  
5 through a political connection through the executive or through  
6 the legislative real in order to develop, you know, similar  
7 policies or coordinate the policies of which then you could exert  
8 the entire west coast political structure to try to affect federal  
9 governmental issues. Your approach here is a little bit different.  
10 And could you give me an example of a some type of compact on  
11 the west coast that exists now, that exerts some type of federal  
12 authority? I just need to trigger my memory.

13 MR. BADOR: Yeah, Northwest Power and Planning  
14 Council, which is designed to -- it's a compact between Montana,  
15 Idaho, Oregon and Washington, and it exerts authority over the  
16 Bonneville power administration.

17 MR. SUND: Yeah, but you know they have the authority to  
18 allocate water, you know, water rights.

19 MR. BADOR: No, they have the authority to deisitate (ph)  
20 such specific things as building codes for conservation of energy.  
21 They have the ability to dictate how habitat mitigation and  
22 restoration will occur. They have the power to dictate design for  
23 the.....

24 MR. SUND: How about water flow?

25 MR. BADOR: .....any future dam. And anadormous fishery

1 protection, this type of thing. It's a conservation wildlife act as  
2 well as a an energy allocation and pricing system. It goes way  
3 beyond water. I mean it's not a water allocation compact. It's an  
4 energy allocation and conservation compact.

5 MR. PARKER: I think Bonneville still makes the cut on  
6 water between.....

7 MR. SUND: I know they do. I've sat on several state  
8 commissions -- inter-state commissions on the legislation trying  
9 to effect water flow and Bonneville really didn't listen to anybody.

10 MR. BADOR: But see, now, after the Northwest Power  
11 Council planning act, what happens is Northwest Power Council  
12 has put together a comprehensive plan for the four states. And  
13 that includes wildlife, conservation, energy conservation, the  
14 whole bit. Now, the BPA acts inconsistently with that plan, the  
15 council can hold a hearing, issue a reviewable finding of  
16 inconsistency and BPA is enjoined from furthering that conduct  
17 or activity until such time they provide a compelling justification  
18 for being inconsistent with the plan. Now that is a power which  
19 far exceeds your average citizen advisory board.

20 MR. SUND: Yeah. they've done all of that and they still  
21 can't affect water flow in favor of fish.

22 MR. BADOR: Yeah. I know. I mean that's.....

23 MR. SUND: Okay, I just wanted.....

24 MR. BADOR: I'm not -- I have to admit I'm not intimately  
25 acquainted with what, you know, has been happening recently

1 with the power council, although it is -- generally both  
2 representatives from Washington, Oregon, Idaho and Montana  
3 are generally fairly happy with what the council has done in  
4 empowering them.

5 MR. SUND: I was just trying to get a feel for what an  
6 example one -- what you would do here.

7 MR. WENK: Mr. Chairman.

8 MR. PARKER: Ed.

9 MR. WENK: Could I follow up that question on the  
10 Northwest Power Planning Council. Perhaps you know I live in  
11 the state of Washington. I oughta know the answer to this, but I  
12 don't know the answer to it. Could you tell us a little about the  
13 decision making dynamics in this sense. You referred to sort of  
14 a master plan against which are tested tactical actions of  
15 Bonneville.

16 MR. BADOR: That's correct.

17 MR. WENK: How was the plan developed and what are  
18 the ground rules -- I don't mean the details of the plan, but what  
19 are the ground rules from the point of view of it's adoption.  
20 Does it require a complete census?

21 MR. BADOR: No, three-quarter rule is generally the way  
22 most compacts work. Three-quarters of the voting  
23 representatives, voting for an enforcement or a plan mandate.  
24 That's generally -- I'm not sure that that's the way it is with the  
25 Northwest Power Council, but as a rule of thumb on how

1 compacts operate, they usually.....

2 MR. WENK: The three-fourths rule.

3 MR. BADOR: What.

4 MR. WENK: You say a three-fourths rule.

5 MR. BADOR: Three-quarters rule, but not three-quarters  
6 of the states, three-quarters of the state's voting power. Usually  
7 you give each state two or three votes and so state delegations  
8 often time split on a particular issue. So, three-quarters of the  
9 total voting membership, not three-quarters of the states.

10 MR. WENK: I see.

11 MR. BADOR: And the idea of that is to prevent a particular  
12 state from being co-opted by an interest group.

13 MR. WENK: Does the federal representative have a vote?

14 MR. BADOR: No.

15 MR. WENK: Only the states have a vote?

16 MR. BADOR: That is correct. The federal government sits  
17 on the council and can participate in the debate, but cannot vote.

18 MR. WENK: Cannot vote.

19 MR. BADOR: And that's what's interesting also about the  
20 Columbia River Gorge compact is that, again, that exercises a  
21 veto over a federal agency. the condemnation powers of the  
22 forest service can be vetoed by the Columbia River Gorge.

23 MR. SUND: I guess, the example is the U.S. Canadian  
24 Treaty thing must be a compact then.....

25 MR. BADOR: No, it is not at this point.

1 MR. SUND: .....on the U.S. side. We have Washington,  
2 Oregon, Alaska in a decision making mode, each having one vote.  
3 I think the tribes have a vote and the federal members sit on  
4 there.

5 MR. BADOR: Okay, yeah, okay on that.

6 MR. SUND: And they have a non-voting federal member.

7 MR. BADOR: Yeah. That's is that the senator fisheries  
8 compact?

9 MR. SUND: I don't know what the technical term.

10 MR. BADOR: Because I know at this time, BC is.....

11 MR. SUND: I understand what you're saying.

12 MR. BADOR: .....not a member of an operating compact  
13 with the United, with the states.....

14 MR. SUND: no.

15 MR. BADOR: .....United States. But that's the power of  
16 compact which is interesting is that foreign governments can  
17 enter into compacts. We have Canadian provinces right now  
18 voting on compacts in the Northeast Fire Prevention and  
19 Protection Compact of which Nova Scotia, New Brunswick, and  
20 Quebec are voting members and impose -- you know, as voting  
21 members they can have some influence over what happens in  
22 Maine. And it'd be ideal to involve British Columbia and Yukon  
23 Territory in such a compact. 'Cause one of the things to  
24 remember about the oil industry is that it just doesn't impact  
25 coastal communities. You know, if we had a spill on Yukon River,

1 the subsistence fishery of the Yukon Valley Basin would be  
2 devastated. The DEC estimates that at a minimum a major break  
3 on the Yukon River would be contained at 500,000 gallons. And  
4 at break up that would be impossible to contain. And so, the  
5 impact of the oil industry goes way beyond communities. The  
6 very interior can be affected. The tributary streams, the Taslina  
7 (ph), the Adogan (ph), all of these rivers which are very  
8 productive, especially for subsistence. And that's the other thing  
9 is that the subsistence community helps us in creating a  
10 compact is one of the other aspects of compacts that you have to  
11 do to get it to the Congress is to show unique regionalism. Well,  
12 we have a subsistence community in Alaska, British Columbia  
13 Washington, Oregon and California that depends upon  
14 anadamous fishery and the protection of that resource. So any  
15 compact designed to regulate the oil industry would have to take  
16 into consideration the interests of these subsistence users.  
17 'Cause they're our key to the definition of a region, in effect,  
18 because that is one of the attributes that makes us -- besides  
19 unspoiled coasts and the fact that one-fifth of domestic crude  
20 consumption passes along those coasts. the fishery and the  
21 dependence upon, for commercial fishing, on Alaskan waters as  
22 well as the dependence of a subsistence population. All  
23 contribute to making a definitive region by which congress  
24 would see that a regional solution would be more appropriate  
25 than a broad brush of a federal portrait.

1           MR. PARKER: Harry has volunteered to stay over another  
2 day. I guess you still volunteer. Are you gonna be with us  
3 Thursday?

4           MR. BADOR: Yep. I'd be happy to.

5           MR. WALLIS: Can I ask one quick question?

6           MR. PARKER: Go ahead Tim.

7           MR. WALLIS: Earlier I think you mentioned that there  
8 were three areas: a citizens advisory group, a task force; and a  
9 compact.

10          MR. BADOR: Well, no. What the mechanisms.....

11          MR. WALLIS: oh, three mechanisms.

12          MR. BADOR: .....that we looked at were compacting the  
13 state regulatory scheme of having a tri-partite system of citizens  
14 advisory commissions; joint review panels of federal, I mean  
15 state agencies; and then a Governor's level task force to oversee  
16 day-to-day operations. That's one mechanism.

17                 Another mechanism is simply petitioning the federal  
18 government for rule making under 553E of Administrative  
19 Procedures Act, by which the State of Alaska says OK, we're  
20 preempted from having double hulls, we will double hulls. We  
21 will write a petition with regulatory language and justification  
22 and submit it to the Coast Guard. The Coast Guard's gotta act on  
23 it. It's put in the federal register and that's another way -- that's  
24 a very cheap way to get a big bang for your buck. Because, they  
25 has to act on it because all the strictures of administrative

1 procedure law that are invoked once upon a formal request  
2 being made.

3 Then the third one is this compact.

4 MR. WALLIS: Who's your appeal.....

5 MR. BADOR: And we're not saying which one is better,  
6 although consensus was among the SeaGrant team that the state  
7 regulatory system of having a task force, a citizens advisory  
8 commission that has these reviewable powers and then joint  
9 review committees. So probably these the optimum in that it  
10 would be the most adaptable perhaps to dealing with all five  
11 sectors of the oil industry in Alaska when the time arises that  
12 such a thing is needed.

13 My last comment would be that we do strongly urge that  
14 the commission take a stance saying that whatever or  
15 institutional recommendations that you make, that you make  
16 them flexible enough to adapt and to incorporate areas of  
17 concern that are beyond tanker standards. And of course, it's  
18 impossible at this point to start going into another inquiry in all  
19 these other areas for the technical aspects. But it's not  
20 necessary. Just be on record that the oil industry is a potential  
21 benefit as well as a potential problem. And we need to create an  
22 institutional structure that can institute policies that can adapt  
23 to all of the potential challenges to the people of Alaska and the  
24 Pacific Rim.

25 MR. PARKER: Okay. Thank you. We'll see you Thursday,