TITLE: WALRUS ISLANDS STATE GAME SANCTUARY ANNUAL REPORT

REPORT PERIOD: 01 JANUARY - 31 AUGUST 1993

PROJECT LOCATION: GMU 17A (Northern Bristol Bay)

## PROJECT GOALS:

A management plan for the Walrus Islands State Game Sanctuary was drafted in October 1992. The plan has not been finalized and no formal management goals have been developed by the Department. In the interim, the management goals for the Sanctuary are to:

- protect walruses and other wildlife within the Sanctuary;
- provide an opportunity for scientific and educational study of walruses; and,
- provide an opportunity to view, photograph, and enjoy walruses.

## WORK ACCOMPLISHED DURING THE PROJECT REPORT PERIOD:

Two wildlife technicians, Kiana Koenen from Alaska Department of Fish and Game (ADFG) and Susan Kruse from U.S. Fish and Wildlife (USFWS), were stationed on Round Island from 4 May until 17 August 1993. Their mutual duties included: patrolling the island for access violations, daily walrus counts, walrus disturbance monitoring/research, sea lion counts, visitor services, sanctuary management, and facility/trail upkeep. Staff field tested a remote phone system in cooperation with Nushagak Telephone Company. A weather station, consisting of a barometer, high/low thermometer, wind and rain gauges, was installed and activated. Basic medical supplies were inventoried and supplemented with major items including a Hare traction splint, backboard, cervical collars, and a portable oxygen delivery system.

#### PROGRESS TOWARDS MEETING GOALS:

#### Field Preparation/Training

Prior to the onset of the field season in May, Round Island field staff attended training seminars in First Aid and CPR Training (8 hr), Marine Survival Training (8 hr), and Small Boat Maintenance and Repair (8 hr). In addition to this training, Susan Kruse (USFWS) attended a small boat handling course (16 hr).

## Cooperative Agreement

A cooperative agreement between ADFG, Division of Wildlife Conservation and USFWS, Marine Mammals Management, for mutual support of the Walrus Islands Sanctuary visitor program was signed

and implemented in spring of 1993. As a result of this agreement, USFWS provided 1 field technician and agreed to pay 50% of the transportation and supply costs for the program. ADFG and FWS field staff shared responsibilities for all sanctuary management (ADFG lead) and research (USFWS lead) activities on the island.

## Cooperative Research

Round Island Walrus Behavior Study

This year in addition to continued walrus and sea lion censuses on Round Island a cooperative USFWS/ADFG research program was initiated to examine the disturbance responses of walruses to human activities. Results of the first year of the study were summarized in a report to USFWS.

National Landmarks Heritage Program

Walrus Islands State Game Sanctuary was registered in 1968 as a National Natural Landmark and became part of the National Landmarks Heritage program that is operated by the National Park Service (NPS). A representative from NPS, Mark Schroeder, visited the island in July 1993 to evaluate island resources with regard to this program. Several potential projects were discussed, including a sanctuary-wide botanical inventory and a seabird colony monitoring project. The feasibility of these projects are being reviewed and evaluated by ADFG and NPS biologists.

Airspace Policy

An airspace policy for aircraft activities near Round Island was drafted by the Dillingham area wildlife biologist. The airspace restriction policy was finalized on 8 February 1993 and distributed to appropriate agencies. It is intended to clarify the current regulations and regulating authorities and provide a consistent means of enforcement. A copy of this policy is available in the 1993 Round Island Report to the File.

Recommended airspace restrictions include a zone within 3-miles of Round Island, where pilots will be requested to stay at least 5000' Above Ground Level (AGL) from 1 April to 30 November.

A standardized airspace violation report form was designed to provide a concise means of reporting all airspace violations. This report form is provided to all personnel stationed at Round Island.

#### ENFORCEMENT:

Airspace

Four airspace violations were documented by staff. Two of these were U.S. Coast Guard overflights and 2 were small private aircraft. The Coast Guard was informed of airspace restriction policies and they immediately complied with our requests. One of the civilian overflights was documented and turned over to USFWS-Law Enforcement and is under investigation. The other lacked

sufficient evidence for further investigation.

#### Fisheries

During the 1993 season the herring spawn occurred earlier than usual, and therefore there were relatively few herring fishing boats in the area. There was also little salmon fishing near Round Island. The yellowfin sole fishery and associated vessels were out of the area by late May.

A total of 11 radio contacts were made by Round Island staff with vessels observed entering closed areas near the island. These included 1 yellowfin sole vessel within the 12-mile limit and 10 vessels within the 3-mile limit. All contacts ended with the vessels leaving the closed area without incident.

## Trespassing and Discharge of Firearms

On 21 June 1993, the ADFG Dillingham area biologist witnessed 2 people, in a small skiff, approach and land at East Main Beach. One of the persons shot at and wounded at least 1 walrus in a group of approximately 600 hauled out there. No walrus deaths were witnessed. State and Federal law enforcement authorities were notified. Subsequent investigations lead to citations being issued to 2 villagers from Togiak for access without a permit and discharge of firearms within the Sanctuary. The cases are pending.

## VISITOR PROGRAM:

In 1993, the Sanctuary received visitors from Alaska and throughout the United States and from the countries of Japan, France, and Germany. At least 4 people were visiting the island for the second time.

The cumulative total for all visitors (day-use and campers) in 1993 was 119. The number of visitors who camped on the island in 1993 (74) was similar to 1992 (80). However, the number of day-use visitors in 1993 (45) was considerably lower than in 1992 (116). This drop was primarily due to an early herring run that left few fishing vessels in the area when staff arrived at the island in May. In 1992, the herring run was late and crew members from fishing vessels waiting in the area resulted in 111 day-use visitors in May compared to 27 day-use visitors in May 1993.

## WILDLIFE RESEARCH:

Walrus and sea lion counts were continued on Round Island this season. In addition to these censuses a research program was initiated to examine the disturbance responses of walruses to human activity.

#### WALRUS:

Counts Two established methods of counting walruses hauled out on Round Island beaches were used this season. These included daily east side land-based counts, and total island counts conducted from a skiff.

<u>Daily Counts</u> Beaches on the East side of the island are accessible for viewing from land, therefore, this was the primary count type used to record walrus numbers from 4 May through 14 August 1993. Counts of walrus on the beach and in near-shore waters (within 15 meters of shore) were made within 2 hours of the most convenient low tide. A daily walrus count total was derived by adding beach and near-shore counts together.

Walrus numbers peaked earlier and higher in 1993 than in 1992. A peak of 5104 was counted on 2 June 1993, compared to 4210 on 12 July 1992. Specific count data is available in the 1993 Round Island Report to the File.

Total island Counts Total island counts were conducted by observing haul-out beaches with binoculars from a skiff and counting walruses. The entire island was surveyed from approximately 100 meters off-shore when weather and time permitted. Six total island walrus counts were conducted between 7 May through 17 July.

Unusual observations: On 25 June a walrus with 3 tusks (2 tusks on the right and 1 on the left) was observed on First Beach.

Walrus carcass sightings: There were at least 12 carcasses on beaches and 3 to 4 floating carcasses sighted during this field season. All except 1 were believed to possess at least 1 tusk. One headless carcass was seen floating near East Main Beach Spit during the first week of the season.

Ivory Collection: Island staff recovered 7 tusks from walrus
carcasses found on Round Island beaches.

# NORTHERN SEA LIONS:

Counts Weekly sea lion counts were conducted at East Cape/Third Beach. The peak sea lion count was 369 on 15 May. This count was similar to the peak for 1992 of 401 on 16 May. As noted in past years, many of the sea lions had moved off the main section of Third Beach by early June. They either left the area, or moved below cliffs along East Cape where it was difficult to count them due to cliff overhangs and terrain. The most consistently used haulout this season was a rock ledge below the Third Beach observation point. This area was used by approximately 20 to 30 sea lions (comprised of 1 to 2 large males and an undetermined mixture of adult females, yearlings, and sub adults). Specific

count data is available in the 1993 Round Island Report to the File.

Observations: Staff searched for flipper tags and recorded any unusual observations during survey. No flipper tags were sighted. No new pups were seen, although two females were observed nursing juveniles. One dead animal was seen on Third Beach in May. An adult female was sighted on several occasions with a 7-10 cm wide laceration and something white collaring her neck. She had a juvenile at her side that was observed making unsuccessful attempts to nurse. In late June a fight, resulting in injuries, was observed between two adult males attempting to haul out on the rock ledge below the Third Beach observation point.

## OTHER WILDLIFE:

Other wildlife, including red foxes, birds, rodents, and additional marine mammals, were observed opportunistically and included in daily logs.

<u>Red Fox</u> Visitors and staff confirmed at least 6 fox kits at East Cape den. Staff identified at least five individual adults and subadult foxes.

<u>Birds</u> First sightings of birds were recorded in the daily log along with first eggs and chicks observed for each species. Pelagic cormorants at East Main observation point were on eggs 11 May. Chicks were visible on 13 June. Black Legged Kittiwakes were on eggs by 1 June. The first chicks were visible on 21 June and fledgling occurred by 3 August. Common Murres eggs were visible by 11 June. Murre chicks were seen on 7 July and chicks fledged by 9 August. On 16 June, a bald eagle nest with 3 eaglets was observed in the SW corner on top of the island. Two adults were present.

Seabird nest productivity plots were not monitored this season. However, it appeared through casual observations that common murres did not have as great of nesting success as black-legged kittiwakes and cormorants at breeding sites on the east side of the island. Few Common Murre eggs and live chicks were seen compared to black-legged kittiwakes and pelagic cormorants nesting in the same location.

Ticks Ticks were found on several tundra vole carcasses and on a walrus carcass. Two tick infested tundra vole carcasses were collected by staff and sent to the ADFG Regional Office in Anchorage for analysis by staff biologist and veterinarian, Bill Taylor. Taylor tentatively identified the ticks as <a href="Ixodis angustus">Ixodis angustus</a>, a common tick found on voles and red squirrels throughout most of southern Alaska. He noted that they are not usually noticed until the vole populations peak, at which time they become quite common and may be the cause of death to some juvenile voles.

The tick specimens were forwarded to tick identification expert, Nixson Wilson, at the University of Northern Iowa, for positive identification.

Ticks specimens collected from a relatively fresh walrus carcass were sent to Julie Clark, School of Veterinary Medicine, Washington State University, Pullman, Washington for identification. Initial analysis did not provide identification; additional attempts at identification are pending.

Other Marine Mammals Other marine mammals observed passing the island this summer included: killer whales, gray whales, 1 Minke whale and 1 harbor porpoise. Three gray whales were observed June 14. One Minke whale on 14 May. One harbor porpoise was observed on 9 August. Campers arriving from Togiak Fish Cannery reported seeing 1 harbor porpoise stranded on the beach near the cannery on 4 August. Killer whales were sighted on 3 occasions. On 14 May and a pod of 5 was observed. Pods of 4 individuals were seen on 18 May and 8 June. It was possible that the same 4 individuals were observed on both dates. Both pods consisted of a large male with a very tall straight dorsal fin, 2 medium-sized animals, and 1 smaller animal.

#### MAINTENANCE:

Clean-up: An intensive effort went into the clean-up and removal of extraneous items that had been accumulating on the island. Several boat loads of trash were transported off the island courtesy of Don Winkleman's Charter Service. Lumbar for a weatherport tent platform was painted for weatherproofing and stored behind the cabin. A new burn barrel was installed. Tools and island supplies were cleaned and inventoried prior to storage.

Trails: The staff improved the safety of existing trails by widening and reinforcing trails that were encroaching on beach cliff edges. Upper Traverse Trail was opened 8 June; however, because of wet and deteriorating trail conditions, it was closed for the season on 9 August. Steps were reinforced and widened in the walk up from Boat Cove. New boardwalks were added to boggy sections of trail above First and Second Beaches. Stakes were cut and placed to mark closed areas throughout the trail system. Grass cutting to keep trails clear continued throughout the summer. No new trails were created.

Cabin: The fuel oil drum was sanded and painted with rust inhibiting paint. Windows were caulked and the roof was tarred along seams. The new tub was sunk in the old one and the new propane burner for heating the tub was cleaned and painted with heat resistant paint to inhibit rust. Propane tanks were sanded and repainted with rust inhibiting paint. Hinges were replaced on

the storage shed door and repaired on the storage box. The cabin stove and heater were cleaned and coated to inhibit rust.

## RECOMMENDATIONS:

- 1. Prepare for the following Sanctuary building and maintenance projects:
- Repair and repaint decks at cabin and bathtub
- Dig new hole for visitors outhouse
- Repaint cabin floor
- Build outside storage box for batteries
- Build platform for weatherport
- 2. Evaluate visitor carrying capacity versus expanding staff. Because of the limited visitor access to the island, plans of expanding the staff to cover research or other program needs should be evaluated with regards to possible negative impact on visitor opportunities.
- 3. Evaluate camping space capacity. There are 10 camping sites. Six of these camping sites are used regularly and four are grown over but available. Recommend no new camping spaces. Permits should be issued to accommodate no more than 10 spaces.
- 4. Evaluate the following Sanctuary facility needs:

  <u>Sanitation</u>: Are existing sanitation facilities adequate to support current numbers of visitors?

<u>Shelter</u>: Evaluate the need for an emergency visitor shelter. Make recommendations regarding size, construction, location, and potential impacts of such a structure.

- 5. On-island visitor infractions. Develop and initiate a plan to deal with visitor infractions. Returning visitors seem to have a greater tendency to break sanctuary policies than first-time visitors. Several repeat-visitors caused problems this summer by failing to stay on trails. At least 3 repeat visitors were rumored to have fed the foxes to get better photos. Problems with policy breakers increased staff time because additional visitor monitoring was required.
- 6. Address the following visitor safety concerns:

<u>Trails:</u> Evaluate status of all existing trails for safety and condition. Continued use of Traverse Trail should be addressed. This trail is unstable and potentially dangerous.

<u>Commercial Charter Services</u>: Reevaluate commercial services in regards to passenger safety. Currently, ADFG permits 12 campers access to the island each 5 day period. Commercial boat transportation to the island is available only through Don's Round

Island Charters. The charter service's 28 ft. vessel, M/V Puffin, has a optimum load limit of 6 passengers with gear. There have been times in the past when this service has exceeded the limit of 6 people with up to 11 passengers. We need to clarify our position with the charter service and make necessary alterations to scheduling or permitting which will eliminate this problem.

- 7. Seek Attorney General opinion on:
  - 1. Liability of transporting visitors and their gear from aircraft or vessels via ADFG inflatable boat.
  - Liability risk of transporting visitors via a state owned and operated boat to and from a commercial vessel that may be over it's optimum load limit.
  - 3. Extent of our responsibility for visitor safety while they are on the island.
- 8. Develop an emergency medical protocol which details staff responsibilities, evacuation procedures, and reporting requirements. Assure, in addition to CPR training, that the 2 sanctuary staff have Emergency Trauma Technician training and all volunteers and relief staff have Advanced First Aid training.
- 9. Update visitor information handouts. Ensure that area ADFG offices and public information centers have current information.
- 10. Develop a vessel access restriction policy and design a violation reporting form, similar to the airspace policy.
- 11. Develop a day-use visitor access policy.
- 12. Distribute pre-season notifications of access policies to airports, canneries/fish processors, and local lodges.
- 13. Seek continued cooperation with USFWS on sanctuary operations and walrus research activities during 1994. Also continue cooperation with Togiak National Wildlife Refuge staff at Cape Pierce.
- 14. Reestablish efforts to develop a Walrus Islands State Game Sanctuary Management Plan and target a completion date by 31 December 1994.
- 15. Explore possibilities for using volunteers to assist with visitor services. If feasible, implement a trial volunteer program during 1994 field season.

# EQUIPMENT NEEDS:

- -New rain gauge for Weather Station
- -Phone
- -New tent for an Emergency Shelter
- -Programmable VHF
  -Spare kicker for inflatable boat (10hp)
- -Portable computer and printer
- -New VHF antenna

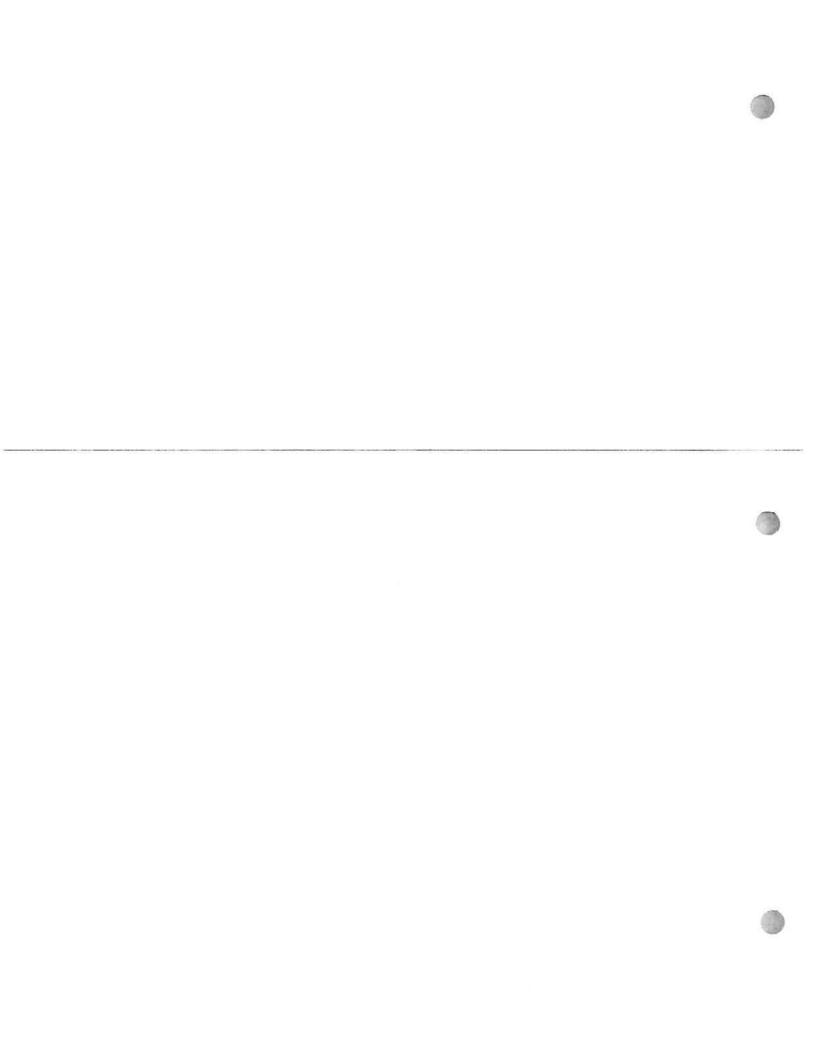
Prepared by:

Submitted by:

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Larry Van Daele Wildlife Biologist ADFG

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MODAY	WEST SOUTH MAIN	WEST MAIN	MAIN BEACH	NORTH BOAT COVE		FIRST		SEC. BEACH		THIRD BEACH	EAST LAND TOTAL	EAST WATER TOTAL	SIDE TOTAL	BOAT	BOAT	TOTAL
05 04	-	-	265	0	0	0	0	0	0	_	265					
WATER	100	-	0	0	0	0	0	0	0	-		0	265			
05 05	_	_	1010	0	12	0	0	1	0		1023					
WATER	-	<del></del> 2	0	0	0	0	0	0	0	-		0	1023			
05 06	1770	-	1575	11	13	18	0	0	0	-	1617					
WATER	-	-	1	0	2	0	0	0	0	-		3	1620			
	-	-	1100	0	0		0		0		1134					
WATER		-	3	0	0		0	0	0			3	1137	1007	1420	0717
BOAT	1000	430	1250	0	0	35	0	2	0	0				1287	1430	2717
	-	-	90	0	0		0	0	0		107		274			
WATER	-	-	3	0	0	0	0	0	0	-		3	110			
05 09	-	-	175	0	0	1	0	0	0	-	176	77				
WATER	-	-	7	0	0	0	0	0	0	-		7	183			
05 10	4	_	120	0	0	0	0	0	0	_	120				1-3-3-11	
WATER	-	-	3_	0	0	0	0		0	-		3	123			
05 11	_	_	280	0	0	0	0	0	0	_	280					
WATER		-	12	0	0		0	0	0	-		12	292			
05 12	_	_	675	0	6	0	0	0	0		681					
V/-TER		_	20	0	0		0	0	0	-		20	701			
05 13	_	_	750	0	0	0	0	0	0		750	-	1147			
WATER		-	3	o	0	0	0	0	ō	-	100	3	753			
05 14	_	_	1040	0	6	0	0	0	0		1046					
WATER		-	45	0	0		0	0	0	-	1.7.4.7.	45	1091			
BOAT	300	350	1150	0	6	1	0	0	0	0				1157	650	1807
05 15		-	550	0	0	0	0	0	0	-	550					
WATER	-	-	0	0	0	0	0	0	0	-		0	550			
05 16		-	770	0	0	0	0	0	0	-	770					
WATER	<del>-</del> :	-	2	0	0	0	0	0	0	-		2	772			
05 17		-	1000	0	2	0	0	0	0	-	1002					
WATER	-	-	2	0	0	0	0	0	0	-		2	1004			
05 18		-	1200	0	0	0	0	1	0	-	1201					
WATER	_	-	2	0	0	1	0	0	0	-		3	1204			
05 19		-	695	2	5	0	0	0	0	-	702					
WATER	-	-	35	0	8	0	0	0	0	-		43	745			
05 20	-	-	930	0	0	0	0	0	0	-	930					
WATER	-	-	12	0	0	0	0	0	0	7		12	942			
05 21	-	-	1500	0	8	3	0	0	0	-	1511					NO
WATER		_	16	0	0	0	0	0	0	_		16	1527			ISLAND
BOAT	-	0	1600	-	-	-	-	-	-	-						TOTAL
05 22		-	915	8	8	0	0	0	0	-	931	1403	100000			
VATER		-	15	0	4	0	0	0	0	-		19	950			
05 23		-	885	11	3	0	0	0	0	-	899					
WATER	_	-	10	0	0	0	0	0	0	-		10	909			
05 24	_	_	455	0	2	0	0	0	0	_	457		-		-	
WATER		-	0	0	0		0	0	0	-		0	457			

MODAY	WEST SOUTH MAIN			MAIN BEACH	NORTH BOAT COVE		FIRST		SEC. BEACH			LAND	EAST WATER TOTAL	SIDE		BOAT WEST	TOTAL	
05 25 WATER				2	0	0		0		0	-	2	0	2				-
05 26 WATER		_		30 7	0	0		0		0	_	30	7	37				-
05 27 WATER		-		390 11	0	0		0		0	-	390	11	401				
05 28 WATER		-		1600	1 0	0		0		0	-	1601	34	1635				-
05 29 VATER		-		2570 30	0	1	16	0		3		2590	33					
05 30 VATER	-	-		2800 35	0	13	117	1 0	0	3 0	_	2934	41					-
BOAT	110	-	100	3200	0	24	186	18	0	0	-	3426			1675	510	2185	i i
WATER		-		30	0	1	1	1	ō	0	-	0.120	33	3459				
06 01 WATER		-		3900 6	0	0	144	0	0	0	-	4068	7	4075				
06 02 WATER		-		4900 12	0	17	173 1	0	0	0	=	5090	14	5104				9
06 03 WATER		-		80	0	0	0	0	0	0	-	80	0	80				
06 04 WATER		-		140	0	0	0	0	0	0	_	140	0	140				
06 05 WATER	_	-		150	0	0	0	0	0	0	-	150	1	151				-1
06 06 WATER	_	-		0	0	0	0	0	0	0	-	0	1	1				701
06 07 WATER		-		10	0	2 0	0	0	0	0	0	12	0	12				•
06 08 WATER		-		330	0	0	0	0	0	0	-	330	7					-
06 09 WATER	_	-		2700	23	94	197	0	7 0	0		3021	19					
06 10 WATER	_	-	-	3300	26 0	121	310	3 0	207	0		3967	28					
06 11	·=	-		3000	32	174	278	0	207	0	-	3691						
WATER		_		1850	8	64	166	0	135	0		2223	39	3730				
WATER	2	- 2	00	24 3600	2 13	0	1 230	0	180	0	0		29	2252	4113	200	4313	d
06 13 WATER		-		750 11	0	10	92	0	75 0	0	-	927	14	941				0.5
06 14	_	-	-	875	0	6	20	1	32	0		934				-		

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MODAY	WEST SOUTH MAIN		MAIN BEACH	NORTH BOAT COVE		FIRST		SEC. BEACH		THIRD BEACH		EAST WATER TOTAL		BOAT EAST TOTAL	WEST	TOTAL
06 15 WATER		-	1575 8	0	13		0	30 0	0	=	1652	8	1660			
06 16 WATER		=	1350 250	0	14 0		0	85 0	. 0		1578	250	1828			
06 17 WATER		=	1325 0	0	1 0		0	118	0	-	1526	0	1526			
06 18 WATER		-	975 0	0	15 0		0	180	0	-	1328	0	1328			
06 19 WATER		-	650 1	0	0		0	102 0	0		826	1	827			
06 20 WATER		-	730 15	0	8		0	94	1	-	880	22	902			
06 21 WATER		-	960 16	0	18 0	122 0	3 4	93 1	3	-	1199	25	1224			
06 22 WATER		-	710 26	0	38 9		3	312 6	0	-	1132	43	1175			
06 23 WATER		-	1150 12	0	53 0		0	232	0	-	1625	14	1639			
06 24 WATER		-	2400 16	0	6	234	0	390 2	0	-	3041	21	3062			
06 25 WATER		-	1500 26	0	12		14	390 4	10	-	2120	32	2152			
06 26 WATER		-	240 5	0	0	0	0	0	0	-	240	5	245			
06 27 WATER		-	900	0	19	0	0	0	0	-	923	6	929			
06 28 WATER		-	435 4	0	1	0	0	0	0	-	436	5	441			
06 29 WATER		-	950 10	0	0	0	0	0	0	-	953	10	963			
06 30 WATER		=	1220 26	0	18 2	47 0	0	0	0	-	1290	28	1318			
07 01 WATER	-	-	240	0	0	0	0	0	0	=	243	2	245			
07 02 WATER		-	300	0	0	0	0	0	0	-	300	3	303			
07 03 WATER	-	-	1900 7	0	0	74 1	0	31 0	0	-	2005	8	2013			
07 04 WATER	-	-	1350 21	11	32 4	138 1	0	235	0	-	1766	29	1795			
07 05 WATER		-	1911	18	1	266 4	8	271 7	0	-	2496	31	2527			
07 06 WATER	-	-	2127 41	16 0	3	220	3	340 3	0	-	2709	44	2753			

MODAY	WEST SOUT MAIN	н '		MAIN BEACH	NORTH BOAT COVE		FIRST	FIRST	SEC. BEACH		THIRD BEACH			EAST SIDE TOTAL	BOAT EAST TOTAL		TOTAL ISLAND	
07 07 WATER	-			1750 22		14		16	277 3	3		2258	28	2286				
07 08 WATER	-		-	1550 35		11	203 3	38 1	257 21	2 0		2061	60	2121				
07 09 WATER BOAT	-	0	475	1900 41 5 2500	0 0 1	20 0 34	0	118 2 120	71 0 300	52 0 29	- - 0	2176	43	2219	3234	475	3709	
07 10 WATER			-	250 150	0	3 0		32 1	95 3	72 0	=	614	155	769				
07 11 WATER		-		1375 17		0	130	12	81	3	-	1601	20	1621				
07 12 WATER			•	1525 4	0	3	152	15 0	144	2	-	1841	5	1846				
07 13 WATER				625 6	0	0	13	0	44 1	0	-	682	8	690				
07 14 WATER				1850 4	0	1 0	13 0	1 0	100	1 0	-	1966	4	1970				
07 15 WATER		-		1750 25	0	7	1 0	0	181	0	=	1939	25	1964				
07 16 WATER		-		1600 4	0	0	115 0	0	225 0	17 0	=	1957	4	1961				
07 17 WATER BOAT	_			2175 2 2400	0	6 1 14	105 20 130	5 0 9	96 2 140	22 0 23	-	2409	25	2434	2716	325	3041	
07 18 WATER		-		1600 10	0	5	71 0	1 0	213	0	-	1890	10	1900				
07 19 WATER				400	0	7 0	64	0	30	0	-	501	4	505	-			
07 20 WATER		-		325 3	0	0	34	0	0	0	-	359	3	362				
07 21 WATER		-		2100 3	0	0	164 0	0	22 0	0	-	2286	3	2289				
07 22 WATER		-		1280 25	0	10	160 1	0	81 0	1 0	-	1536	26	1562				
07 23 WATER		-		2300	0	7	158 0	5	125	0	-	2595	11	2606				
07 24 WATER		-		655 10	0	5	192	0	194 5	1	-	1047	16	1063				
07 25 WATER	-	-		350 2	0	0	0	0	0	0	-	353	2	355				-50
07 26 WATER		_		310 15	0	11	0	0	0	10	-	332	16	348			-	9
07 27 WATER		-		1150	0	11	0	0	71	0	-	1239	2	1241				

														~~~~	~~~~	. ~ ~ ~
	WEST			NORTH							EAST	EAST	EAST	BOAT	BOAT	
	SOUTH	WEST	MAIN	BOAT	BOAT	FIRST	FIRST	SEC.	SEC.	THIRD	LAND	WATER	SIDE	EAST	WEST	TOTAL
MODAY	MAIN	MAIN	BEACH	COVE	COVE	BEACH	PRIME	BEACH	PRIME	BEACH	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	ISLANI
07 28		_	180	0	0		0	220	0	:	429					
WATER	-	-	0	0	0	0	0	0	0	7		0	429			
07 29		-	6		0		0		48		54		1999			
WATER	_	-	0	0	0	0	0	0	9	-		9	63			
07 30		-	400	0	0		0		32		432	-22				
WATER	-	-	20	0	0	0	0	0	9	-		29	461			
07 31	-	-	650	0	0	1	0	4	3	1-	658					
WATER	-	-	5	0	0	0	0	0	0	-		5	663			
08 01		-	900	0	0		0		3	-	976					
WATER	-	-	7	0	0	0	0	1	0	-		8	984			
08 02		-	1150	0	12		0		0	-	1329	24.25	~6.F.F85			
WATER		-	2	0	0	0	0	0	0	-		2	1331			
08 03		-	1075	7	9	178	1	72	0	-	1342					
WATER	_	_	12	0	1	8	0	0	0	-		21	1363			
08 04		-	420	0	5		0	24	0	-	528					
WATER	-	-	14	0	0	4	0	0	0	-		18	546			
08 05		-	1350	0	0		0	0	44	-	1528	2272	V0V-000-00-00-00-00-00-00-00-00-00-00-00			
WATER	-	-	13	0	0	0	0	0	0	-		13	1541			
08 06		-	320	0	4		0	17	0	-	373		55-545			
WATER	_	-	17	1	0	0	0	0	0	_		18	391			
08 07	-	-	390	0	5	35	1	6	0	-	437					
WATER	-	_	6	0	0	2	0	0	0	-		8	445			
80 80	_	-	425	0	0	26	0	0	0	-	451					
WATER	-	-	7	0	0	2	0	0	0	-		9	460			
08 09		-	405	0	0	16	2	4	1	-	428	AUTHOR ST	27447424			
WATER	-	-	31	0	0	0	0	0	0			31	459			
08 10	-	-	925	0	1	16	2	0	4	-	948					
WATER		-	6	0	0	2	1	0	1	-		10	958			
08 11		-	850	0			1	1	0	_	859				-	
WATER	-	-	2	0	0	0	0	0	0	-		2	861			
08 12		_	365	0	1	6	0	4	1	-	377					
WATER	-	<del></del>	4	0	0	0	0	0	0	-		4	381			
08 13		-	40	0	0	-	=	-	-	-	40	900	/ 2400			
WATER	-	-	2	0	0	+	-	-	-	-		2	42			
08 14		-	60	0	0		0	0	0		60					
WATER	_	-	8	0	0	0	0	0	0	_		8	68			

# 1993 ROUND ISLAND WALRUS DAILY COUNT TOTALS E. MAIN ESIDE

MO	DΔ	BC		WND			BAROM	CHG	MA	M	TD	TIME	LOC'N	WAL WTR		WAL (
5	1	2	2	15	4	0	-	I -	-	38	3	1914	E.MAIN	0	265	265
5	100	0	2	5	4	0	_	+	50	40	1	2105	E.MAIN	0	1023	1023
5	06	1	1	15	8	0		<u> </u>	-	40	1	2200	E.MAIN	3	1617	1620
5	07	1	2	20	8	0	-	1_	48	40	3	2130	E.MAIN	3	1134	1137
B5	07	1	2	10	8	0	_	-	48	40	2	1341	TOT.ISL.	-	2717	2717
5	08	3	1	28	8	0	_	-	36	28	1	1230	E.SIDE	3	107	110
5	09	2	1	10	8	0		<del> </del>	-	27	3	1140	E.SIDE	7	176	183
5	10	3	2	30	4	1	_	-	1_	38	1	1420	E.SIDE	3	120	123
5	11	1	1	10	9	1	_	<b> </b>	+-	36	1	1527	E.SIDE	12	280	292
5	12	1	2	15	4	0	_	-	-	38	2	1711	E.SIDE	20	681	701
5	13	1	2	20	4	1	-	-	+-	39	1	1730	E.SIDE	3	750	753
5	14	0	1	5	4	0		_	1_	_	1	1710	E.SIDE	45	1046	1091
B5	14	_		_	-	_	_	-	-	_	2	2000	TOT.ISL.	-	1807	1807
5	15	2	1	20	4	0	_	-	-	42	1	1715	E.SIDE	0	550	550
5	16	1	1	15	4	0	_	-	-	- 42	3	1747	E.SIDE	2	770	772
5	17	0	2	15	7	0		+	+-	44	1	1837	E.SIDE	2	1002	1004
5	18	0	2	15	5	0		+=	-	44	1	1939	E.SIDE	3	1201	1204
5	19	0.	2	10	9	1		-	48	44	2	1014	E.SIDE	43	702	745
5	20	2	2	20	8	1	_	-	40	44	1	1038	E.SIDE	12	930	942
5	21	1	2	10	8	0			66	-	1	1054	E.SIDE	16	1511	1527
5	22	1	2	10	9	0		<del> </del>	58		1	1142	E.SIDE	19	931	950
5	23	2	2	20	5	1		<del>                                     </del>	50	-	1	1218	E.SIDE	10	899	909
5	24	3	2	30	4	0		+=-	48	_	1	1341	E.SIDE	0	457	457
5	25	3	2	35	4	1	_	-	43	43	1	1340	E.MAIN	0	2	2
5	26	2	0	15	4	0	_	+=-	48	47	3	1317	E.MAIN	7	30	37
5	27	1	1	15	4	0		<u> </u>	-	-	1	1611	E.MAIN	11	390	401
5	28	0	1	5	4	0			-	_	1	1633	E.MAIN	34	1601	1635
5	29	0	0	5	9	0	_	-	-	_	1	1726	E.MAIN	33	2590	2623
5	30	0	0	0	0	0	_	=	73	62	1	1714	E.MAIN	41	2934	2975
B5	30	0	0	0	0	0		<del> </del>	73	62	4	1015	TOT.ISL.	41	2185	2185
5	31	0	0	0	0	0	_		13	02	1	1815		33	3426	3459
	01	0	0	_	9			-	+	-	-	1821	E.MAIN	7	4068	4075
	02	1	2	10	5	0			52	-	2	0950	E.MAIN E.MAIN	14	5090	5104
	03	2	2	25	3	0	_		-	-	17/100	0904	E.MAIN	0		80
	04	1	2	15		0		-	-	47				0	80	140
	05	3	2		4	-			-	47	1	0922	E.MAIN		140	_
	_	3		20	4	0	_	-	56	-	1	1117	E.MAIN	1	150	151
_	06 07	_	0	15	4	0	_	-	-	-	2	1026	E.MAIN	1	0	1
	_	1	55.0		3	0	-	-	-	-	1	1250	E.MAIN	0	12	12
_	08	3	0	20	3	0		-	-	-	1	1255	E.MAIN	7	330	337
	09	0	2	20	8	0	_	-	-	45	1	1400	E.MAIN	19	3021	3040
6	10	1	2	15	7	0		-	-	44	1	1520	E.MAIN	28	3967	3995
6	11	0	2	10	7	0	_	-	-	-	1	1543	E.MAIN	39	3691	3730
6	12	0	1	15	7	0	-	-	57	-	1	1601	E.MAIN	29	2223	2252
B6	12	-	-	-		-	-	-	-	-	4	1014	TOT.ISL.	-	4314	4314
6	13	0	2	0	1	0	-	-	-	-	1	1628	E.MAIN	14	927	941

# 1993 ROUND ISLAND WALRUS DAILY COUNT TOTALS

				СГ	WND	WND									WAL	WAL	WAL
ľ	ON	DA	BC	CVR	SPD	DIR	PC	BAROM	CHG	MA	MI	TD	TIME	LOC'N	WTR	LND	TOT
	6	14	0	1	10	5	0	-	-	-	-	3	1623	E.MAIN	934	7	941
	6	15	1	1	15	4	0	-	_	-	-	3	1714	E.MAIN	8	1652	1660
	6	16	0	1	5	5	0	-	-	-	-	3	1828	E.MAIN	250	1578	1828
	6	17	1	1	15	8	0	i —	_	-	-	1	1913	E.MAIN	0	1526	1526
	6	18	1	1	30	8	0	-	-	-	-	1	0947	E.MAIN	0	1328	1328
	6	19	2	1	25	7	0	-	-	-	-	1	0959	E.MAIN	1	826	827
	6	20	1	0	3	7	0	-	-	-	-	1	0957	E.MAIN	22	880	902
	6	21	0	2	5	9	0	_	-	-	-	1	1148	E.MAIN	25	1199	1224
	6	22	0	2		7	1	-	_	-	-	1	1031	E.MAIN	43	1132	1175
	6	23	0	2	10	5	0	29.80	-	-	-	1	1234	E.MAIN	14	1625	1639
	6	24	0	1	8	7	0	29.80	-	67	44	1	1317	E.MAIN	21	3041	3062
	6	25	0	1	5	6	0	30.00	0.20	72	52	1	1521	E.MAIN	32	2120	2152
	6	26	3	2	-	6	1	29.58	-0.42	52	43	1	1450	E.MAIN	5	240	245
	6	27	1	2	10	5	0	29.62	0.04	55	40	1	1616	E.MAIN	6	923	929
	6	28	2	2		4	0	29.54	-0.08	49	43	1	1619	E.MAIN	5	436	441
	6	29	1	2	10	4	0	29.70	0.16	41	61	3	1611	E.MAIN	10	953	963
	6	30	0	1	8	6	0	29.90	0.20	68	40	3	1752	E.MAIN	28	1290	1318
	7	01	3	2	35	3	1	29.72	-0.18	56	38	1	1927	E.MAIN	2	243	245
	7	02	2	2	5	5	1	29.40	-0.32	55	44	3	1819	E.MAIN	3	300	303
	7	03	0	2	10	3	0	29.60	0.20	56	44	1	2100	E.MAIN	8	2005	2013
	7	04	0	1	5	4	0	29.78	0.18	52	40	3	2120	E.MAIN	29	1766	1795
	7	05	1	2	10	4	0	30.10	0.32	58	44	1	1045	E.MAIN	31	2496	2527
	7	06	0	2	8	4	1	30.30	0.20	61	44	1	1203	E.MAIN	44	2709	2753
	7	07	0	1	6	1	0	30.36	0.06	61	44	1	1325	E.MAIN	28	2258	2286
	7	08	0	0	10	7	0	30.34	-0.02	67	44	3	1257	E.MA[N	60	2061	2121
	7	09	0	1	0	0	0	30.34	0.00	75	45	3	1408	E.MAÍN	43	2176	2219
	B7	09	-	-	-	-	-	-	-	-	-	-	0956	TOT.ISL.	-	3709	3709
	7	10	0	0	8	9	0	30.30	0.00	72	46	1	1508	E.MAIN	155	614	769
	7	11	0	1	12	8	0	30.38	0.08	81	47	3	1417	E.MAIN	20	1601	1621
	7	12	0	2	3	9	0	30.22	-0.16	72	46	1	1608	E.MAIN	5	1845	1850
	7	13	1	2	8	4	0	30.04	-0.18	58	46	1	1750	E.MAIN	8	682	690
	7	14	0	2	7	7	0	30.19	0.15	61	46	1	1714	E.MAIN	4	1966	1970
	7	15	0	2	8	7	0	30.18	-0.01	64	43	3	1710	E.MAIN	25	1939	1964
	7	16	0	0	0	0	0	30.17	-0.01	72	49	1	1920	E.MAIN	4	1957	1961
	7	17	0	2	6	9	0	30.14	-0.03	78	46	3	1847	E.MÁIN	25	2409	2434
	B7	17	i-	-	-	-	-	-	-	-	-	-	1221	TOT.ISL.	-	3041	3041
	7	18	2	1	10	4	0	29.94	-0.20	72	49	1	1930	E.MAIN	10	1890	1900
	7	19	3	1	20	4	0	30.00	0.06	70	49	1	1104	E.MAIN	4	501	505
	7	20	3	1	20	4	0	29.74	-0.26	71	52	1	1002	E.MAIN	3	359	362
	7	21	0	0	0	0	0	29.64	-0.10	81	52	3	2213	E.MAIN	3	2286	2289
	7	22	0	1	4	9	0	29.64	0.00	78	49	3	1129	E.MAIN	26	1536	1562
	7	23	0	2	3	9	0	29.78	0.14	67	48	1	1254	E.MAIN	11	2595	2606
	7	24	2	2	20	3	0	29.74	-0.04	72	49	3	1220	E.MAIN	16	1047	1063
١	7	25	3	2	10	3	0	29.74	0.00	-	49	1	1451	E.MAIN	2	353	355
1	7	26	0	0	20	6	0	30.00	0.26	78	43	1	1500	E.MAIN	16	332	348

# 1993 ROUND ISLAND WALRUS DAILY COUNT TOTALS

	D.4	<b>DO</b>		WND			DADOLA	0110			TD	T11.4C	LOCINI	WAL		WAL
MO	DA	RC	CVH	SPD	DIH	PC	BAROM	CHG	MA	MI	TD	TIME	LOC'N	WTR	חאח	TOT
7	27	0	2	15	8	1	29.80	-0.20	-	-	1	1657	E.MAIN	2	1239	1241
7	28	2	2	25	7	0	29.74	-0.06	61	52	1	1729	E.MAIN	0	429	429
7	29	1	1	30	7	0	29.76	0.02	67	49	1	1832	E.MAIN	9	54	63
7	30	0	0	20	7	0	29.78	0.02	75	49	1	1838	E.MAIN	29	432	461
7	31	0	2	4	9	0	30.12	0.34	72	46	1	1942	E.MAIN	5	658	663
8	01	0	2	0	0	0	30.29	0.17		49	1	2037	E.MAIN	8	976	984
8	02	0	2	5	9	0	30.31	0.02	64	49	3	2104	E.MAIN	2	1329	1331
8	03	1	2	10	4	1	30.23	-0.08	58	49	3	2143	E.MAIN	21	1342	1363
8	04	1	2	3	9	1	30.09	-0.14	55	49	1	1012	E.MAIN	18	528	546
8	05	0	2	8	4	1	30.14	0.05	-	-	3	1159	E.MAIN	13	1528	1541
8	06	1	2	7	9	1	30.14	0.00	57	49	1	1311	E.MAIN	18	373	391
8	07	2	1	18	8	0	30.24	0.10	67	49	1	1338	E.MAIN	8	437	445
8	08	1	1	20	8	0	30.18	-0.06	70	52	1	1336	E.MAIN	9	451	460
8	09	0	2	4	9	0	30.09	-0.09	78	52	3	1453	E.MAIN	31	428	459
8	10	0	1	6	7	1	29.88		_	52	1	1528	E.MAIN	10	948	958
8	11	0	2	5	9	0	29.88	0.00	64	52	1	1716	E.MAIN	2	859	861
8	12	1	1	20	3	0	29.88		58	49	1	1627	E.MAIN	4	377	381
8	13	3	2	30	4	1	29.62	-0.26	52	49	3	1638	E.MAIN	- 2	40	
8	14	0	2	0	0	1	29.08		61	46	2		E.MAIN	8	60	60

B IN MONTH COLUMN SPECIFIES BOAT COUNT

# CODES FOR WALRUS AND SEA LION CENSUS FORMS

MO= Month

DA= Day

CLD CVR= Cloud Cover: clear=0 broken=1 overcast=2

WND SPD= Wind Speed

WND DIR= Wind Direction: 1=N 2=NE 3=E 4=SE 5=S 6=SW 7=W

8=NW 9=Variable

PC= Precipitation: yes=1 no=0

BAROM= Barometer

CHG= Change in Barometer from Previous Day

MA= Maximum Temperature

MI= Minimum Temperature

TD= Tide: high=4 low=1 rising=2 falling=3

TIME= Time of count

LOC'N= Location of Haulout (Beach)

WAL WTR= Number of Walrus in the Water

WAL LND= Number of Walrus Hauled Out

WAL TOT= Total Number of Walrus

BC= Beach Conditions: calm=0 moderate waves=1 rough=2

.very rough=3

NOTE: Blank= No Data 0= Count of Zero

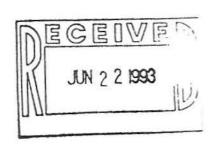
# 1993 ROUND ISLAND SEA LION COUNTS

Count Location: East Cape/Third Beach

Count Location:	East Cape/Inir		
DATE	# HAULED-OUT	# IN WATER	TOTAL
05/07 [BOAT]	280	NC	280
05/08	260	30	290
05/14	255	50	305
05/15	369	0	369
05/17	298	60	358
05/21	189	61	250
05/26	187	36	223
05/29	183	44	227
05/30 [BOAT]	140	NC	140
06/04	68	2	70
06/08	77	29	106
06/12 [BOAT]	225	NC	225
06/13	140	39	179
06/18	231	15	246
06/23	79	2	81
06/29	63	2	65
07/03*	16*	0*	16*
07/06	87	3	90
07/08	78	6	84
07/09 [BOAT]	80	NC	80
07/16	114	29	143
07/17 [BOAT]	110	NC	110
07/19	10	35	45
07/28*	26*	0*	26*
08/03*	20*	0*	20*
08/07*	27*	0*	27*
08/12*	45*	1*	46*
08/14*	42*	1*	43*

<sup>\*=</sup>Only Third Beach Counted NC=Not Counted BOAT=Counted From Boat

Cooperative Agreement
between the
Alaska Department of Fish and Game,
Division of Wildlife Conservation
and the
United States Fish and Wildlife Service,
Marine Mammals Management
for Mutual Support of the Round Island
Walrus and Visitor Management Program
in the
Walrus Islands State Game Sanctuary



## Authority

The Marine Mammal Protection Act of 1972, as amended (16 U.S.C. 1361 et. seq.) authorizes the U.S. Fish and Wildlife Service, Marine Mammals Management (Service) and State agencies to enter into cooperative agreements for the conduct of any Service function or activity pertaining to the management and study of marine mammals.

## Purpose

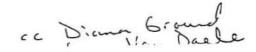
This Cooperative Agreement recognizes the importance of cooperative work between the Alaska Department of Fish and Game, Division of Wildlife Conservation (Department), and the Service in providing personnel and funding for walrus research and management and sanctuary activities at Round Island in the Walrus Islands State Game Sanctuary, Bristol Bay, Alaska. A high level of cooperation is necessary within the sanctuary because the Department is charged with managing the land and near-shore waters in the area while the Service is charged with managing the walruses that use the area.

The purpose of this agreement is to document the conditions under which the Service agrees to provide a Wildlife Biological Science Technician (FWS Tech) to cooperate with the Department's Fish and Wildlife Technician (ADFG Tech) on the Round Island program.

## Scope of Work

## In order to meet this purpose, the Service agrees to provide;

- \* funding for all costs associated with the salary, benefits, insurance programs, etc. for the FWS Tech;
- \* all training required by the Service (e.g. boat safety, aircraft safety, CPR/First Aid, etc.) and basic field gear (e.g. boots, rain gear, personal floatation devices, etc.) for the FWS Tech;
- \* travel and per diem for the FWS Tech to and from Round Island and Anchorage;



- \* one half of the cost of food for the FWS Tech and the ADFG Tech while they are stationed on Round Island; and.
- \* any specialized equipment for walrus research and monitoring activities (e.g. computers, binoculars, spotting scopes, etc.).

## The Department agrees to provide:

- \* all personnel costs, travel, per diem, lodging and transportation associated with having an ADFG Tech for the Round Island program from April 15, 1993, to August 31, 1993;
- \* one half of the cost of food for the FWS Tech and the ADFG Tech while they are stationed on Round Island;
- \* lodging and logistical support for the FWS Tech while in Dillingham and on Round Island; and,
- \* all cost associated with routine sanctuary operations and the visitor program.

## The Service and the Department mutually agree that:

- \* at no time will only one person be stationed on Round Island; each agency will be responsible for covering its own vacancies;
- \* day-to-day supervision of the FWS Tech and any volunteers on the island is the responsibility of the ADFG Tech; however, overall supervision of the FWS Tech will be by the Service and overall supervision of the ADFG Tech will be by the Department; significant conflicts will be reported simultaneously to the Service and Department immediate supervisors and they will be mutually responsible for conflict resolution;
- \* the equivalent of at least one person's duty time (40 hrs/wk) will be devoted to walrus monitoring and/or research activities as directed by the Service;
- \* both technicians stationed on Round Island will share equally in walrus monitoring/research, visitor services, sanctuary management, and facility/trail upkeep activities;
- \* the Department will take the lead in producing a section within an annual report on sanctuary management activities and the Service will take the lead in producing a section within the report on walrus monitoring/research activities on Round Island. A draft report for internal review will be completed by September 30, 1993;
- \* the agencies will evaluate the success of this joint effort and provide recommendations for continuation and/or improvements during a joint meeting in Anchorage during the winter of 1993/94; and,

\* no funds are required to be transferred between the Service and the Department as a result of this agreement.

## Period of Performance

The Service will provide the FWS Tech to the Round Island program from at least May 1, 1993, to August 31, 1993.

## Project Officers

The Project Officer representing the Service for this agreement will be Dana J. Seagars, U.S. Fish and Wildlife Service, Marine Mammals Management, 4230 University Drive, Suite 310, Anchorage, AK 99508 (907-271-2348).

The Project Officer representing the Department for this agreement will be Larry Van Daele, Alaska Department of Fish and Game, Division of Wildlife Conservation, P.O. Box 1030, Dillingham, AK 99576 (907-842-1013).

## General Provisions

- \* The Service's General Provisions to Grants and Cooperative Agreements, dated August 1, 1985, shall be applicable to this Cooperative Agreement.
- \* Attachment 1. GENERAL PROVISIONS are hereby incorporated and made a part of this agreement.

#### Termination Information

The termination of this agreement shall be December 31, 1993. However, any signatory agency may terminate its participation in this agreement by providing to all parties notice in writing 30 days in advance of the date on which termination becomes effective.

## ATTACHMENT 1. GENERAL PROVISIONS

- 1. Nothing in this agreement shall obligate any party in the expenditure of funds, or for future payments of money, in excess of appropriations authorized by law.
- 2. Each party agrees that it will be responsible for its own acts and the results thereof and each party shall not be responsible for the acts of the other party; and each party agrees it will assume to itself risk and liability resulting in any manner under this agreement.
- 3. No member of Congress, or the Commissioner, shall be admitted to any share or any part of the agreement or to any benefit that may arise therefrom.
- 4. Each party will comply will all applicable laws, regulations, and executive orders relative to Equal Employment Opportunity.
- 5. Nothing herein is intended to conflict with federal, state, or local laws or regulations. If there are conflicts, this agreement will be amended at the first opportunity to bring it into conformance with conflicting laws or regulations.
- Policy and position announcements relating specifically to this cooperative program may be made only by mutual consent of the agencies.
- 7. All signatory agencies/organizations shall meet jointly on at least an annual basis to discuss matters relating to this agreement.
- 8. Upon termination of this agreement any equipment purchased for studies initiated in furtherance of this agreement will be returned to the agency of initial purchase.
- 9. The effective date of this agreement shall be from the date of the final signature.
- 10. Any material published or data acquired as a result of this cooperative program may be reproduced with credit given to the agencies, or organizations responsible for the development of the material.
- 11. Either signatory agency may terminate its participation in this agreement by providing to all parties notice in writing 30 days in advance of the date on which its termination becomes effective.
- 12. A free exchange of research and assessment data among agencies is encouraged and is necessary to insure the success of these cooperative studies.