

ALASKA PENINSULA NATIONAL WILDLIFE REFUGE

King Salmon, Alaska

ANNUAL NARRATIVE REPORT

Calendar Year 1982

U.S. Department of the Interior  
Fish and Wildlife Service  
National Wildlife Refuge System

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NTR\* = Nothing to Report

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*Come on -  
Smile, Vernon!*

1. 3. 4. 2.

# 1982 PERSONNEL

## PERMANENT

1. Glenn Ellison, Refuge Manager GS-485-12
2. Vernon Berns, Assistant Refuge Manager/Pilot GS-485-12  
EOD 2/82
3. Kelie Swanson, Refuge Assistant GS-303-4  
EOD 8/82
4. J. Michael Humerick, Maintenance Worker WG-4749-8  
EOD 5/82

## TEMPORARY

5. Dan Yparraguirre, Biotechnician GS-404-5  
5/2/82 - 10/2/82
6. Glen Miller, Maintenance Worker WG-
7. Bill Rashid, Biotechnician GS-404-6

## Review and Approvals

*Glenn Ellison* 2/28/83  
Submitted by date

Regional Office Review date

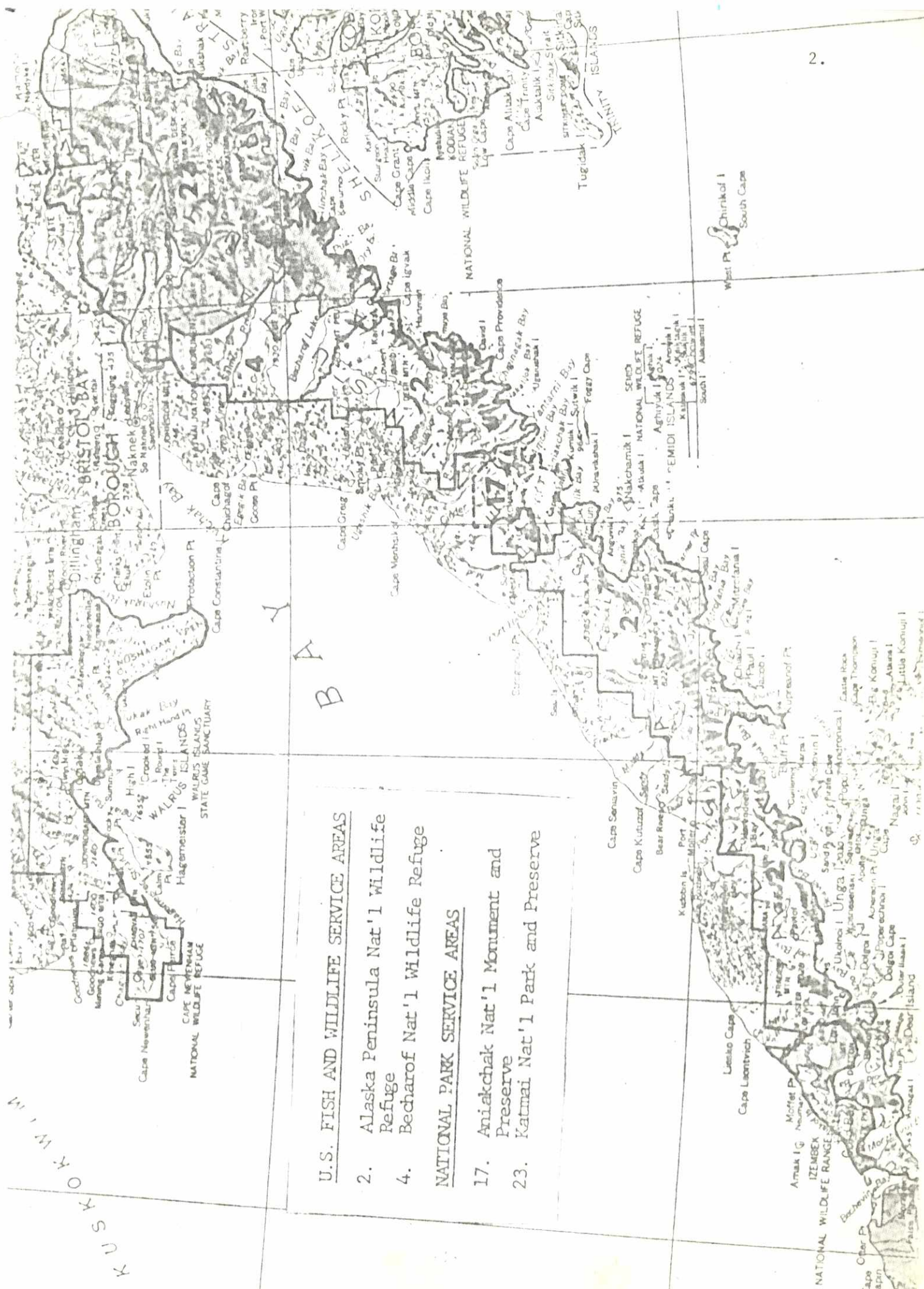
*Don't see YCC, YACC on  
Carol Simian's names  
on this list (see pg 84)  
F2*

U.S. FISH AND WILDLIFE SERVICE AREAS

2. Alaska Peninsula Nat'l Wildlife Refuge
4. Becharof Nat'l Wildlife Refuge

## NATIONAL PARK SERVICE AREAS

17. Aniakchak Nat'l Monument and Preserve
23. Katmai Nat'l Park and Preserve





### A. HIGHLIGHTS

Assistant Refuge Manager/Pilot Vernon Berns came on board in February. (Section E.1)

Refuge Comprehensive Conservation Planning and Bristol Bay Cooperative Management Planning were major thrusts for 1982. (Section D.1)

Management of the Pavlof Unit was transferred to Izembek NWR. (Section E.8)

The decision was made to combine Alaska Peninsula and Becharof NWR under one refuge manager. (Section E.8)

~~This is a Lowlight, not a Highlight.~~  
Director Robert Jantzen visited the refuge. (Section J.2)

### B. CLIMATIC CONDITIONS

Climate on the Alaska Peninsula is generally classed as a moderate, polar maritime climate. Conditions are highly variable between the Pacific and Bering sides of the Peninsula. Ocean currents and the Aleutian Mountain Range have a tremendous impact upon the weather. The Pacific side is characterized by milder temperatures and greater precipitation than the Bering side. Precipitation ranges from 160 inches annually in the vicinity of Chignik to less than twenty inches annually on the Bristol Bay Lowlands. Temperatures range from 88°F to -46°F. *read H + L. see*

*below is average  
this is extreme  
W.S.*

Cyclonic storms frequently enter the region and dominate the weather for much of the year. Winds are often strong and turbulent particularly in mountain passes and valleys. The winds in conjunction with cool temperatures can produce extreme wind chill problems during any month.

Table 1. Monthly Temperatures, Precipitation and Winds, 1982 at King Salmon Weather Service Station

Month	Temperatures (°F)			Precipitation (inches)		Wind (MPH)	
	High	Low	Avg.	Rain	Snow	Avg.	Peak
January	39	-28	17	1.5	5.7	11	49
February	51	-17	13	.2	T	10	58
March	44	-7	24	1.4	8.3	13	49
April	50	-6	26	1.2	8.3	11	40
May	57	20	40	1.6	T	11	41
June	73	32	49	3.0		11	53
July	71	36	52	2.0		13	43
August	74	35	52	2.0		9	35
September	60	31	46	5.1		11	51
October	48	5	28	1.4	2.8	12	53
November	45	-5	26	.8	2.0	11	46
December	44	-13	24	1.4	2.9	11	58
TOTAL				21.6	30.0		

### C. LAND ACQUISITION

#### 3. Other

The boundaries of APNWR established by ANILCA encompass 3,500,000 acres. Several hundred thousand acres of inholdings, mostly state and native are present. Due to overselections by native corporations and conflicting claims by the state, natives and federal government exact figures are not available.

Three regional native corporations, Bristol Bay, Koniag, and Aleut and their village corporations have large refuge inholdings. Approximately 1,573,000 acres have been conveyed or selected, an additional 356,000 acres have had the subsurface only selected or conveyed. State selections and conveyances total approximately 131,000 acres. State and native conflicting selections total approximately 393,000 acres. Total conveyed or selected lands within the refuge total approximately 2,453,000 acres or 70% of the refuge. Several hundred thousand acres of this total are overselections. A guess at this point for final conveyances to the state and natives would be 1.3-1.8 million acres.

A dispute has arisen between the state and the FWS over several thousand acres of state selections under section 11 (a) (3) of ANCSA within the refuge. The contested lands are mostly in the vicinity of Ugashik Lakes and the Port Moller-Heredeen Bay area. The state maintains that the selections are valid. The FWS is contesting the selections and a solicitors opinion has been requested, though it has not been released. The Audubon Society, Sierra Club and other groups have indicated that they will sue if the Secretary of the Interior tries to transfer the contested lands to the state administratively.

A variety of opportunities for land exchanges exist and are discussed under planning.

Late in 1981 a problem with an inholding near Ugashik Narrows surfaced. Two fishing lodges with several buildings each believed to be on a refuge inholding were found to be on refuge lands instead.

In 1968 Mary Brandt applied for a five acre headquarters site under one of the BLM's land entry programs. BLM failed to act on the application until 1977 when a conflict between the land application and an earlier public land withdrawal was discovered. In the years between 1968 and 1977 several buildings had been constructed on the land identified in the headquarters site application. BLM did not conduct a survey until the summer of 1981. The survey verified a direct conflict between the land applied for and the public land withdrawal.

BLM offered to patent five acres adjacent to the building sites outside of the withdrawal but would not patent the property upon which the buildings were located. The action would have required the lodge owners to move their buildings about 1000 feet down the lake shore at considerable expense. The lodge owners sought SUP's for the cabins from the refuge to prevent the necessity of moving the buildings.



After considerable investigation by the refuge staff and Realty in the R.O. a compromise was struck with the lodge owners. The FWS would take the five acre site that BLM was prepared to patent in exchange for which the lodge owners would get four acres at their current location and would grant a public lake shore easement. The arrangement seemed satisfactory to all concerned.



These fishing lodges on Upper Ugashik Lake near Ugashik Narrows provided an administrative headache for the refuge due to the lodges having been constructed off of the land the owners applied for through BLM.

#### D. PLANNING

##### 1. Master Plan

APNWR's sparse staff has been preoccupied with major planning efforts. ANILCA mandated that a regional plan for the Bristol Bay region be developed. The plan is known as the Bristol Bay Cooperative Management Plan (BBCMP). Four refuges, APNWR, Becharof NWR, Izembek NWR, and Togiak NWR plus state, native, and local interests are involved in the plan. ANILCA also mandated that Refuge Comprehensive Conservation Plans (RCCP) (Master Plans) be completed. The deadline for both plans in December 2, 1983.

Numerous trips by refuge staff to the Regional Office and planning staff to King Salmon were required. The refuge staff was heavily involved with resource mapping, writing, and consulting on various sections of the plans and attending a variety of intra and inter-agency meetings. One public meeting on Bristol Bay planning was attended in Naknek. Planning severely pinched the refuge budget. The refuge was assessed \$56,000 for satellite

mapping of the region alone, plus staff time and travel costs for other planning activities. The RCCP and BBCMP are being prepared simultaneously. The BBCMP is basically a regional land use plan. The RCCP to a large extent must be written to accommodate the decisions in the BBCMP. A variety of development interests including the oil industry, mining interests, native regional corporations, and Alaska's Department of Natural Resources are actively pushing for development on refuge lands.

The geography of the region has focused considerable attention on APNWR. The Alaska Peninsula is a long narrow strip running from northeast to southwest and separating the Pacific Ocean from Bristol Bay. A transpeninsula corridor for a road or pipeline would greatly reduce the time and cost of shipping. With BNWR and INWR sitting at either end of the Alaska Peninsula and having Congressionally designated wilderness areas, attention has been focused on APNWR to accommodate transpeninsula corridors for moving oil and gas from Bristol Bay to ice free, deep water ports on the Pacific side. Transpeninsula roads are also proposed.

Oil and gas development on the Bristol Bay lowlands and mining in the Chignik and Herendeen Bay areas are looming as major potential resource conflicts.

The intricate land patterns and extensive inholdings on the refuge point to land exchanges as a logical means of sorting out or heading off potential problems. The state, natives, and FWS have all expressed considerable interest in land exchanges but little in the way of specifics has occurred. Unfortunately much of the fine wildlife habitat on the Alaska Peninsula is outside of the refuge. The refuge proposed to Planning a number of possible land exchanges to rectify this problem; including acquisition of Nelson Lagoon, Seal Island, Port Heiden, Cinder River Lagoon, plus several others in exchange for a variety of refuge lands. No one will know if any exchanges will come to fruition until the RCCP and BBCMP are completed. If exchanges are not consummated then the FWS will have missed a good opportunity to protect exceptional wildlife resources.

*It's not the first time! KFH*

## 2. Management Plans

A wildfire inventory plan is being developed. By the end of CY-82 the draft was near completion and will be submitted to the R.O. during the first quarter of CY-83.

Because of the low wildfire danger on the Alaska Peninsula a request was submitted to the R.O. for an exemption from preparation of a fire management plan as outlined in the Refuge Manual. No response has been received at this time. *That means do it! KFH*

A sport fishing management plan was prepared and submitted for R.O. review.

## 3. Public Participation

One public meeting was held in Naknek for the BBCMP. Approximately 20 people attended with most of them having some state or federal agency affiliation. It is difficult to get the general public to attend public meetings in many instances.



A workshop for refuge comprehensive planning was held in Anchorage in late August. Select individuals from the public and other agencies with special knowledge of the refuge were invited e.g. guides, oil company representatives, etc. These individuals were invaluable in helping the planning team maintain a broad perspective.

Drafts of both the BBCMP and RCCP are due out early in CY-83. Public meetings will be held extensively in the region to receive input on the draft plans, during the summer of 1983.

#### 4. Compliance with Environmental Mandates

Both the BBCMP and RCCP are considered major federal actions. APNWR staff worked extensively writing and consulting on the preparation of EIS's for the plans. Sections on wildlife management strategy were the primary responsibilities of the refuge.

### E. ADMINISTRATION

#### 1. Personnel

Vernon Berns filled the position of assistant refuge manager/pilot in February. Vern came from Kenai NWR having also previously worked for Kodiak NWR, Aleutian Islands NWR, and the predecessor of ADC, Predator and Rodent Control. Vern has almost 25 years of experience in Alaska and several ~~hundred~~<sup>thousand</sup> hours of pilot experience in small aircraft doing wildlife surveys and law enforcement. Vern and his experience are welcomed additions to the refuge.

Along with Becharof NWR, APNWR shared three positions. A full-time clerk, Carol Simianer, was hired in March. Carol resigned in July to move to Phoenix. Kelie Swanson replaced Carol in August. A temporary maintenance position was filled in May by Mike Humerick. A bio-technician position was filled in May by Dan Yparraguirre. Dan terminated in October due to lack of funds.

Because APNWR and BNWR share the same headquarters site, facilities, have similar needs, and due to the lack of funding and personnel ceilings, the refuges will routinely share positions until such time as the refuges are combined. The situation makes tracking budgets, payrolls, FTE's and supervision confusing but at present there are no realistic alternatives.

Table 2 - Personnel Status of APNWR

FY	Permanent (full-time)	Temporary
FY-83	3	.7
FY-82	2	.6
FY-81	1	

At the end of 1982 a position for an assistant refuge manager was being advertised.



Carol Simianer served as refuge clerk from March - July.

Berns



Tracie Yoas and Diane Shawback were the two YCC enrollees who lasted the entire eight week program. They were a big help in cleaning up the refuge compound.

Berns

## 2. Youth Programs

Two YACC enrollees were terminated in March when the YACC program was terminated. The YACC program was an asset while it lasted. The enrollees did a variety of minor maintenance and rehabilitation projects. The main project for CY-82 was rehabilitation of a seasonal cabin for year round occupancy. The project was well along when the YACC program ended.

An eight week non-residential YCC camp was held at King Salmon this year. Four enrollees were recruited. One terminated shortly after the YCC camp started and another terminated about six weeks into the camp. The enrollees performed a variety of functions. The FWS compound, which was inherited from National Marine Fisheries Service is littered with junk and the warehouses are in a general chaotic state. The YCC crew did much to clean up the mess. The enrollees helped erect the new refuge radio antenna. They painted sheds which house gas pumps. Tracy Yoas filled in as typist while the refuge was between clerks.

One problem with the camp is difficulty in recruiting enrollees. The YCC camps occur at the height of the salmon processing period so teenagers can generally find higher paying employment with local canneries than the YCC program offers.

## 3. Other Manpower Programs

Two individuals, Glen Miller and William Rashid, were detailed from the Washington Office to work jointly for APNWR and BNWR. Washington paid all salary, per diem and travel costs. Glen and Bill arrived during the first week of June and departed at the end of September.

Glen was an excellent carpenter. He performed a variety of jobs including completing the rehab of the seasonal cabin, installing six new thermopane windows in refuge trailers, plus a variety of other tasks. His work was all first rate. Bill was a top notch worker who became YCC group leader for the summer. After the camp closed he spent two weeks on APNWR helping with wildlife surveys. He performed a variety of miscellaneous maintenance tasks willingly and well.

## 5. Funding

Table 3 - APNWR Funding FY-81 to FY-83

FY	1210	1220	1300	Total
FY-83	70,000	210,000	-0-	280,000
FY-82	70,000	220,000	-0-	290,000
FY-81	10,000	20,000	32,000	62,000

FY-82 began with a rosy budget picture. At the start of the FY funding was 1210 - 65K, 1220- 190K, and 1300 - 25K. The fisheries money was lost early in the FY due to Congress's failure to approve additional fisheries money for Alaska. By February the word came down from the R.O. that there were budget cuts coming. All refuges submitted budget needs and justifications. When funds were reallocated APNWR ended up with a total of



\$290K of which \$56K came off the top for landsat mapping for the BBCMP leaving the refuge with \$234K, down \$46K from the original FY-82 projections. With almost half of the FY gone at that point, major belt tightening was required for the rest of the year.

As this is being written APNWR has been notified that it will be assessed approximately \$22K to pay for printing of the RCCP. The new year is looking grim.

Try 130 R!?

With the vast acreage of the refuge, remoteness of the area, high cost of doing business in Alaska, and the financial burdens of planning. The refuge budget is grossly inadequate to protect refuge resources.

## 6. Safety

Field operations in bush Alaska are inherently hazardous. A number of small aircraft accidents on and around the refuge reinforced the obvious fact that the primary means of transportation is not without peril. Unpredictable weather, operation in remote areas, and a healthy population of brown bears all add to the need for constant attention to safety.

Facilities occupied by APNWR and BNWR are being leased from NMFS. The buildings and grounds are full of safety hazards, e.g. poor wiring, scrap and debris scattered about, inadequate heat and lighting in the building, etc. The place is a safety officers dream or nightmare depending upon your point of view. A shortage of staff and time have prevented rectifying all but the most severe deficiencies.

A safety plan was completed in CY-82.

A variety of deficiencies noted in a safety inspection in 11/81 were corrected though much remains to be done. New fire extinguishers were added to supplement the existing extinguishers. Nomex clothing was purchased for use during low level airplane operations. A variety of safety equipment for the shop was purchased. Safety meetings were held monthly. A variety of pertinent subjects were covered, e.g. bears, airplane safety, boating safety, rabies, etc.

One lost time accident occurred. Temporary maintenanceman Humerick was injured when a 55 gallon drum he was cutting exploded. The drum had not been properly ventilated. Mike suffered a broken arm and a severe cut above his left eye. Safety glasses probably saved his eyes. Mike was flown to Anchorage where he was hospitalized briefly. Mike was off work for about two weeks followed by about six weeks of light duty work. Even accidents are more expensive in Alaska. The cost of Mike's med-evac to Anchorage was approximately \$1000.

One week of Arctic survival training at Eilson Airforce Base near Fairbanks was attended by Elison in mid-March. The course was interesting and worthwhile.

## 7. Technical Assistance

RM Elison assisted the Western Alaska Ecological Services Office with assessing the impacts of three small hydropower projects proposed on native



The outlet of Mud Bay Lake is one of the proposed hydropower sites near Chignik Bay. The site is on native owned land within the refuge.

Elison



← An Alaskan water cooled engine?

Safety Violation  
1 person ATV's

Corp of Engineers personnel experienced some unique travel experiences while surveying hydropower sites. Residents of Perryville transported COE personnel on 3-wheeled ATV's. The group is pictured fording the Kametolook River near Perryville. One of the major concerns of the COE personnel was whether or not their travel voucher examiner would understand a claim for 3-wheeler rental.

looks like Elison + Taylors  
hunting expedition  
not

we rented  
snow machine  
(w operator in '75  
Moe DeFuer

Elison



lands. The sites located near Perryville and Chignik (2) are on inholdings within the refuge. Field trips of approximately three days each were made to these areas. Ellison assessed impacts on wildlife and terrestrial habitat.

The projects are small. The site at Perryville if developed would produce less than 200 kw. Impacts of this project would be minimal. One of the sites near Chignik, Indian Creek, currently supplies the village with water and is already partly developed. Further development of Indian Creek for hydropower would not produce significant impacts of wildlife or habitat. A proposed site at Mud Bay would include a relatively large impoundment which would flood a pristine area with high wildlife values for brown bears, beaver, and other species plus the stream supports runs of sockeye and pink salmon.

#### 8. Other Items

Administration of the Pavlof Unit of APNWR was transferred to Izembek NWR in July. The need for this change was mutually agreed to by the staffs of APNWR, INWR and the Regional Office. The Pavlof Unit is remote from APNWR and surrounds INWR so there really was no other logical alternative.

A big change occurred in October when the decision was made in the R.O. to combine BNWR and the Ugashik and Chignik Units of APNWR into one refuge under one refuge manager. Since BNWR is simply a continuation of APNWR and the refuges share common resources, problems, and facilities both managers felt that combining the refuges would simplify and smooth administration of the areas. RM Ellison's housing is rather dismal so he indicated that he would be willing to move, thus any battle for succession was avoided. The refuges will be combined by the end of FY 1984. Having watched Solomon dismember APNWR this CY, RM Ellison is now reflecting on alternatives for a move. *(with due consideration for chinook fishing)*

Fisheries management in Alaska was in a state of flux for most of the year. As previously mentioned APNWR lost its fisheries money early in FY-82. Rumors of reorganization of the Fishery Program at the field level were first heard in mid-winter. Until that point it was the intention of the R.O. to put fishery biologists on refuge staffs and fund the work through the refuge where the work would occur. The Fishery Program changed the approach in spring of 1982. The decision was made to establish a Fishery Resources Station at King Salmon. The Fishery biologist for BNWR was to be transferred to the new station and a fishery biologist for APNWR would not be approved.

A series of written and verbal arguments ensued between Fisheries and Refuges. Most recently refuge managers Ellison, Taylor (BNWR), Delaney (Kenai NWR) and Strickland (Kodiak NWR) assembled in September to develop another briefing paper on why fishery work should be handled through refuges. Both Fisheries and Refuges have valid arguments though it is refuges biased opinion that their arguments are a good deal more valid. However, the bottom line is the fishery program has the fishery money.

Three representatives from the W.O. fishery office, John Brown, Joe Webster, and Brian Kinnear, conducted a program review in July. They visited

*without program  
management and  
the work is  
simple - simple  
divisions/w  
fisheries or  
forester or  
P.U. guy or  
archeologist  
under refuges  
Noe return*





One of the byproducts of refuge inholdings is this gravel airstrip 5000 feet long built by Chevron. Koniag Native Regional Corporation leased drilling rights and the large airstrip in the middle of a spectacular wilderness area resulted. Chevron did a commendable job of litter removal and housekeeping. Guides and other users are less fastidious.

Elison



The village of Chignik Bay is one of several villages on the refuge hoping to benefit from small scale hydropower projects.

Elison

King Salmon and RM Ellison was afforded the opportunity to visit with them which he appreciated. A variety of refuge concerns were related including the most important one i.e. that Fishery work on refuges be directed at meeting the needs of refuge resources and management.

## F. HABITAT MANAGEMENT

### 1. General

Habitat management on APNWR, as on most Alaskan refuges is limited to protecting the existing natural state from degradation by unnatural forces. Habitat conditions did not vary noticeable from the norm.

### 3. Forests

A request was received from an individual for salvage of timber washed up on refuge beaches. After correspondence the decision was made to advertise the opportunity, a special use permit for log salvage being granted to the highest bidder. A bond of \$20,000.00 was required as a hedge against environmental damage or the cost of removing abandoned equipment. The opportunity was widely advertised, however, there were no bidders.

### 12. Wilderness and Special Areas

APNWR has no designated wilderness though most of the refuge's 3,500,000 acres meet the criteria. There is strong opposition by many private, local, and state interests to designation of any wilderness within APNWR. At this time it is doubtful that much if any wilderness will be recommended by the Secretary to Congress for designation.

## G. WILDLIFE

### 1. Wildlife Diversity

The wilderness character on the Alaska Peninsula helps maintain wildlife diversity. There have been 156 species of birds, 32 species of land mammals, 22 species of sea mammals and 25 species of fish recorded on or adjacent to the refuge. As in most higher latitudes diversity and density of biomass are more limited than in lower latitudes.

### 2. Endangered and/or Threatened Species

Olaus Murie in his writings from "Fauna of the Aleutians and Alaska Peninsula" suggests that the endangered peregrine falcon, Falco peregrinus anatum might migrate or be vagrant to the Alaska Peninsula. No sightings were recorded this year.

### 3. Waterfowl

As the Naknek River began to open in March about 2,000 waterfowl mostly



common mergansers and goldeneyes moved in. Arrival of whistling swans was first noted on April 7. By late April shovelers, pintails, teal, and various other species were making their appearance. During early May at least 1,500 swans were present on the Naknek River. White-fronted geese, Canada geese and other waterfowl were common. These birds were waiting for the local lakes to open or migrating northward.

An emperor goose survey was flown from Naknek to False Pass on April 21 along the Bristol Bay Coast. The weather was excellent but timing was poor. Shore-fast ice extended nearly to Port Moller. Approximately 43,000 emperors were counted which is less than 50% of the number recorded on the same survey at the same time in 1981 suggesting that half or more of the population was still in the Aleutians. On May 3 and 4 a second survey was conducted using 3 crews and expanding the survey from Kuskokwim Bay to Unimak Island following the north side of the Alaska Peninsula and returning to Portage Bay on the south side of the Peninsula. A total of 100,643 emperor geese were observed along the survey route. The coastal areas along the north side of Bristol Bay were ice free by this date.

The timing of the fall survey was a few days early to record the bulk of migrating geese. Refuge staff were forced to terminate the survey on the Pacific side due to turbulence and winds on October 2, but were able to survey from Egegik Bay to Moffett Lagoon on the Bering side and tallied 19,559 emperor geese. The Migratory Bird Project which surveyed from Bethel to Cold Bay and returned along the Pacific side from October 6 to 10, counted 80,608 emperor geese.

It is interesting to note that on the segment from Bethel to Egegik no emperors were seen. Comparing the segments from Egegik to Moffett Point on October 2, 19,559 geese were counted and on October 7, 62,870 were tallied. Winds and tide conditions were nearly perfect on the later count, i.e. light winds and high tides and colder weather was pushing the birds toward their wintering grounds.

Approximately 138 square miles in the Dog Salmon River Drainage were surveyed in July for whistling swans. Fifteen broods totalling 46 cygnets ( $\bar{x} = 3.0$ ) and 227 adults were counted. Density was 1.97 birds per square mile in prime habitat. Although several pairs without broods were counted it was not determined if they were non-breeders or were unsuccessful nesters.

On July 14 a swan nest with 5 eggs was observed. On July 21, the nest was examined again and 4 of the eggs had hatched with 1 egg still in the nest. Generally eggs hatched by mid-June.

Some of the best waterfowl habitat is found along the Bristol Bay coast and adjacent to the refuge in the potholes and lakes of the lowlands. Nesting ducks include mallards, pintail, green-winged teal, scaup, white-winged scoters, black scoters and mergansers. No pair or production surveys were done due to funding and priorities.

#### 4. Marsh and Water Birds

Many of the lakes have nesting loon pairs present, primarily common and red-throated loons. Lesser sandhill cranes nest in the wetlands of the

refuge. The Peninsula is one of the major nesting areas for cranes of the Pacific Flyway, however, we see little of these birds until August when they show up as family groups along the streams and lake shores.

#### 5. Shorebirds, Gulls, Terns and Allied Species

There has been no attempt to inventory these birds on the refuge. The populations peak during the spring and fall migrations. Some of the major staging areas are Izembek Lagoon, Nelson Lagoon, Port Heiden, Ugashik Bay, Egegik and other smaller estuaries located along the Bristol Bay Coast outside of the refuge.

#### 6. Raptors

Bald eagles nest on the Pacific side on cliffs, sea stacks and prominent points along the coast. The Bristol Bay coastline is low and flat and has little to offer for nesting habitat except one small area in Port Moller and Heredeen Bay. Only two nests have been found in the interior, one on lower Ugashik Lake and the other on the Dog Salmon River. During the emperor goose survey on 3-4 May 82 adults and 36 juvenile bald eagles were counted along both sides of the Alaska Peninsula. Seven eyries were also located. An eagle nesting survey of all refuge coastline is planned in 1983.

A single sighting of a golden eagle at Ugashik Lake was made this year. Bailey reported a nesting golden eagle at Cold Bay in 1973 and Berns found one nesting at Kodiak in 1975. These birds appear to be rare in this area and their nesting this far south and west in Alaska is even more so.

Three Peales' peregrine falcon nests were found on the Pacific side of the refuge. One nest was found at Ugashik Lake but no young were observed.

Other raptors found on the Peninsula are gryfalcon, goshawk, marsh hawk, merlin, rough-legged hawk, short-eared owl and during some winters snowy owls. No population data are available.

#### 7. Other Migratory Birds

Most passerines prefer alder and willow stands and these birds are most noticeable along the streams and around lakes. As trees and shrub cover increase so does the diversity of birds. For example, at Cold Bay 34 species have been recorded whereas near King Salmon where trees and shrubs become common 43 species of passerines have been recorded.

#### 8. Game Animals

- a. Brown Bears: Bear surveys along streams were conducted in the Ugashik Lakes area this year and will be expanded to the Chignik drainage next year. Table 4 gives the results of this year's survey.

Table 4 - Brown Bear Stream Surveys 1982

Date	Time	Salmon Run	Sows with cubs			Sows with yearlings			Singles			TOTAL
			w/1c	w/2c	w/3c	w/1y	w/2y	w/3y	S	M	L	
7/12/82	1815	Very Good	0	2	0	1	1	1	1	9	3	30
7/13/82	0630	Very Good	0	0	0	1	0	0	0	10	0	12
7/18/82	1910	Very Good	2	3	2	2	0	1	10	7	0	46
7/19/82	0715	Very Good	2	2	2	5	1	1	14	1	1	51
7/26/82	1910	Fair	0	1	1	0	3	0	16	5	0	37
TOTAL BEARS			8	24	20	18	15	12	41	32	4	174

Using the data from the most reliable survey the average litter size for cubs of the year was 2.0 cubs and 1.4 for yearling bears.

The largest error in bear surveys is classification of single bears in the small and medium classes, which is a judgement factor on the part of the observer.

This is the first year that stream surveys were systematically flown in the Ugashik area so there is no comparable data.

The Alaska Department of Fish and Game made two surveys in the Black-Chignik Lake area on August 8 and counted 134 bears in the morning and 148 bears in the evening. These are the highest counts since 1965 when 123 bears were seen. Although not flown every year the ADF&G has used this as a study area since 1962.

Bears favor the Bristol Bay side of the mountains during the salmon seasons due to the large salmon runs. The streams are long, slow and meandering as compared to the smaller swifter streams of the Pacific side.

- b. Caribou: The Alaska Peninsula caribou herd is divided into three subherds. The largest herd of at least 16,800 animals ranges from King Salmon to Port Moller and calves in the Bear River - Port Heiden area. The second herd of 6,000 animals occupies the area between Port Moller and Cold Bay. They calve around Trader Mountain and then move southward in the Bering Sea lowlands to winter near Cold Bay. The third subherd of about 1,000 animals are found on Unalakleet Island. *Unimak*





Whistling swan nest. Swans are major users of refuge wetlands.

Berns



Brown bears thrive on salmon from many streams and rivers within the refuge.

Berns

NKE!

Good Shot  
Vern



Domestic reindeer were introduced in 1932 but they lasted only a few years. During the winter of 1938-39 food shortages due to overgrazing, deep snow, and extreme icing caused large losses of both caribou and reindeer. In 1940 the reindeer herds were abandoned and they are presumed to have mixed with the caribou.

Although the caribou population has been stable the mortality and harvest is nearing the recruitment in some areas and is being carefully monitored by ADF&G.

ADF&G has been keeping up to 30 radio collars active on caribou in the northern herd for ease in censusing and monitoring movements. APNWR has assisted ADF&G by providing aircraft and pilot for caribou surveys and sharing the information rather than each organization conducting its own surveys.

- c. Moose: Moose populations continue to be low, only about 35% of the peak recorded in the mid 1960's when about 6,500 animals were counted. The Mother Goose Lake area appears to have some of the best moose habitat in the refuge especially in the foothills. In a sample of 130 moose in 1981, ADF&G tallied 25 calves/100 cows or about 16 percent calves but in 1982 with a 226 moose sample they got about 8.7 calves/100 cows or 6 percent calves in the population. Bear predation is suspected as the major cause of low calf survival. Studies of browse availability have not been conducted, so food deficiencies cannot be ruled out as a population depressing mechanism. The ADF&G collared 54 cow moose in the Mother Goose Lake - Cinder River area in 1977 and it is common to see several of these animals still wearing the collars in late 1982.
- d. Other Game Mammals: Red foxes are common and appear to be on a high cycle in the Ugashik and Chignik Units. Rabies outbreaks have appeared in the Pavlof Unit around Cold Bay and the fox populations are depressed. One case of rabies was reported in land otters. Wolves, wolverines and lynx are scattered throughout the refuge. A light grey wolf with 3 pups was observed near Featherly Pass on August 19.

Quantitative information is not available.

## 9. Marine Mammals

Harbor seals, Stellar's sea lions and sea otter are common along the coast of the Pacific and Bering. Sea otter mortality was high on the Bering Sea side when shore fast ice covered Bristol Bay as far south as Sandy River this spring. The otters were trapped by the ice and as many as 10-15 animals could be found in small openings. Dead sea otters on the beach and near shore were common. Foxes and eagles made extensive use of the carrion. Fifty or more grey whales were seen near the edge of the shore fast ice south of Port Heiden. Cape Seniavin was not used as a haul out by walruses



The Alaska Peninsula caribou herd is one of the major wildlife resources on the refuge. Caribou are utilized extensively for subsistence and sport hunting.

Berns



why do you have  
to bullet the  
salmon to  
get the  
otoliths?  
b

Bill Rashid and Dan Yparraguirre assisted Fishery Resources by collecting otoliths from red salmon on Deer and Crooked Creeks.

Berns





*Getting pretty cozy!*  
1-58

A field camp was established near Upper Ugashik Lake at a guides headquarters. One cabin was rented for two months during which time swan and bear surveys were conducted.

Berns



Fuel is delivered to field camps by air in 55 gallon drums. By the time air freight is added to the cost of gasoline the price is about \$4/gallon.

Berns

this spring. Only 4 live walrus were seen near Port Moller. Dead walrus washed up on beaches were common from the Naknek River to Izembek Lagoon. Most carcasses seen had already had the heads or just the ivory removed. Two large hauling out grounds for harbor seals are Seal Islands and Cape Rozhnof.

- Cause of death? LAF

Lead poisoning  
AT

#### 10. Other Resident Wildlife

← which species? per

Ptarmigan and snowshoe hares are found within the refuge but both species appear to be low in their cycles.

#### 11. Fishery Resources

The Ugashik River drainage on the Bristol Bay side and Chignik River drainage on the Pacific side are the two areas within the Alaska Peninsula NWR that receive intensive management by the ADF&G. Both are big producers of sockeye salmon. All five species of salmon spawn in various drainages of the refuge. With the use of aircraft for fish hauling commercial fishermen are taking advantage of the early king salmon and late silver salmon runs and moving the salmon to fresh food markets rather than being totally dependent on local canneries. Fishermen strikes and low fish prices due to the botulism scare of canned salmon in the U.S. and European markets caused an estimated retail loss of \$3,000,000 in Bristol Bay this year. Early in 1982 botulism traced to a can of salmon of Alaska origin killed a Belgium man and made his wife ill. A large recall of Alaska canned salmon ensued. Improperly canned salmon mostly originating from canneries in the village of Egegik was found. Extensive news coverage of the recall and botulism depressed the retail market.

Table 5 - Commercial Salmon Catch in Ugashik District

Year	Red	Pink	Chum	Silver	King	Total
1980	926,011	49	37,294	9,341	5,809	978,504
1981	1,949,531	29	32,624	26,817	3,636	2,013,637
1982	1,161,117	14	50,283	51,176	7,078	1,269,668

Refuge staff assisted the Becharof fisheries biologist with stream surveys along the east side of Ugashik Lake on August 20 when 163,000 red salmon were enumerated. Deer Creek and Crooked Creek were selected and 100 ear bones (otoliths) were collected from dead fish at each creek to determine age distribution of spawning fish.

### H. PUBLIC USE

#### 1. General

The greatest single public use of the refuge is hunting which includes sport and subsistence hunting.



## 8. Hunting

Hunting is regulated by the State of Alaska. The Alaska Board of Game sets bag limits and seasons. Hunting is the primary public use on the refuge. Big game species sought include brown bear, moose and caribou. Most sport hunters fly to King Salmon by scheduled airlines and then charter air taxi operators to the refuge. Most commercial guiding operators pick up their clients at King Salmon and fly them to their hunting camps. Guided hunters are usually non-residents seeking brown bear or trophy moose and caribou.

Bear season is open on the Peninsula every other regulatory year. The season was open May 10 to May 25, 1982 and will not be open again until fall of 1983. Bears are required to be sealed. The State sealed 132 males and 74 females for a total of 206 during the spring season. The average age was 6.5 years using the cementum annuli aging technique.

Bear guiding is a big business on the Peninsula with clients paying up to \$10,000 for a hunt. One guide is reported as having had 34 clients and harvested 32 bears.

Guides are required to get a Special Use Permit from the refuge. Twenty-nine guides obtained permits for the Ugashik and Chignik Units during the spring of 1982.

The early moose season was from September 10 to 20. Only bulls with an antler spread of at least 50 inches or three brow tines on one side were legal. A second season was open during December when antlerless moose may be taken. The late season is primarily scheduled to meet subsistence needs. The State requires harvest tickets for moose but the data is not analyzed until late spring so the 1982 data is not available. The harvest in 1981 was 56 bulls and 10 cows for game management unit (GMU 9E) - which includes all of APNWR.

Caribou season is open from August 10 to March 31, however not more than one caribou may be taken from August 10 to October 31. The total bag limit is four. With the long season village residents have an opportunity to harvest caribou for their supply of red meat as they migrate in the fall and early spring. The State 1981-82 harvest tickets totaled 706 and the game biologist estimated another 200 caribou taken that were not reported in the Ugashik-Chignik Units.

The wolf and wolverine are classified as big game and as furbearers. A few are shot by sport hunters while hunting other game. The fur is of poor quality until late in the year when most of the animals are harvested by trappers.

Very little waterfowl hunting takes place on the refuge. However, coastal areas near the refuge e.g. Pilot Point and Cinder River are important staging areas for migrating birds and receive considerable use from non-local hunters. Because of reduced populations of geese caused by natural conditions, spring hunting, and overharvest in the Lower 48 the bag limit for geese was reduced to no more than one white-fronted goose and/or Canada in the daily bag limit and two in possession in the Ugashik Bay-Cinder River area (GMU 9E).

## 9. Fishing

More fishermen come to the Peninsula each year in pursuit of king salmon, silver salmon, rainbow trout, Dolly Varden, arctic char, lake trout, northern pike and grayling. The world's record grayling was caught at Ugashik Narrows in 1981. How big? fed

Each year one or two new fishing lodges are build on inholdings within the refuge. Some of the lodge owners promote catch and release. The State has special regulations in the Ugashik Drainage on grayling with a limit of two, only one of which may be over 20 inches in length.

A new lodge was started at Painter Creek airstrip in early summer. Two buildings are under construction with plans for additional buildings to include sauna, dining facilities and bar for guests. One of the owners is a former Fish and Wildlife agent and fortunately is very conservation minded.

## 10. Trapping

Trapping is allowed throughout the refuge without a Special Use Permit. Most of the trapping occurs near the villages for fox, otter, beaver, mink, wolf and wolverine. A few trappers fly out to their favorite trapping grounds. Trapping used to be a full time winter endeavor with trapping cabins located along lakes and major drainages. Most of these cabins are deteriorating rapidly from lack of use and repair. No quantitative harvest data for the refuge is available.

## 11. Wildlife Observation

The high costs of travel, lack of support facilities and weather do not attract people interested only in wildlife observations. Scheduled air service is available to Katmai National Park, as well as bus tours, walking tours with naturalists, and facilities for food and lodging. People interested strictly in wildlife observations generally bypass the refuge in favor of the National Park.

## 15. Off-Road Vehicling

Common means of transportation on the Peninsula are airplanes, snow-machines and three-wheeled ATV's. Regulations require helicopters and <sup>sp?</sup> tracted vehicles be used only under a permit. Helicopters are primarily used by U.S.G.S. and oil companies doing surficial geology. A few hunting guides have tracked vehicles and use them mainly to transport game. The refuge staff is contacting each of these guides in the field and mapping the trails they use. In the past they drove wherever the machine would travel. With the establishment of the refuge the guides with vehicles must keep on established trails. Most of the guides are cooperative but want to hold all the "Grandfather Clauses" possible.

Three-wheeled ATV's are frequently used by subsistence hunters near villages. Most of the three-wheeler use occurs after freeze up when the streams





OHIO BLUE TIP  
lightning Bolt  
↓  
touch 'em

Several deteriorating trappers cabins like the one pictured litter the refuge.

Berns



Three-wheeled ATV's are the most common means of local transportation used on the Alaska Peninsula. The ratio of 3-wheelers to village residents is generally high as this picture taken at Perryville shows.

Elison

are used as travel routes. Resource damage is generally limited to areas adjacent to the villages on native owned lands which are outside refuge jurisdiction.

## 17. Law Enforcement

Most of the law enforcement on this new refuge is preventive and high visibility. Making aerial patrols, stopping at camps to visit and making the FWS presence known is the most that can be accomplished with meager staff and funds.

The Alaska Fish and Wildlife Protection Section of the Public Safety Department is charged with enforcing fish and game laws. They have two officers stationed at King Salmon to cover the Alaska Peninsula. They have effectively used undercover operations to detect and prosecute illegal guiding and hunting the same day airborne violations. However, State efforts are spread thin throughout the region. A few cases have resulted in revoked guiding licenses and forfeited aircraft. One such case occurred during 1982 spring bear hunt when two guides lost one Supercub, were fined \$3,000.00 and lost all hunting privileges for 4 years. They have their case on appeal. With clients paying \$5,000 - \$10,000 for a hunt it is worth it to some guides to take chances by shooting the same day airborne and herding animals to hunters.

At Becharof Lake, Berns and Taylor apprehended two local individuals using the Becharof NWR Boston Whaler for hunting. Both individuals were given a citation and paid a F.O.C. rather than appearing in court.

The local magistrate is applying for authority to hear federal cases. Presently an individual wishing to be heard before a magistrate must go to Anchorage (\$220.00 airfare, \$20.00 taxi service round trip from the airport to courthouse, plus room and board). This is costly for a minor violation but perhaps it serves as more of a deterrent than any fine.

## I. EQUIPMENT AND FACILITIES

### 2. Rehabilitation

Much of APNWR's available funds went into a variety of rehab projects. Refuge facilities inherited from National Marine Fisheries Service are in poor condition and serve as a major drain on refuge funds.

A 12' x 16' arctic entrance/store room was added to ARM Berns trailer by force account. The arctic entrance cuts down on heat loss from the trailer and provides storage thus alleviating some congestion in the trailer.

The trailers had originally been set up with 1500 gallon holding tanks for sewage disposal. A local individual was equipped to pump the tanks and haul the waste, however, in February he notified the refuge he was getting out of the honey dipping business. With the tanks requiring emptying every 10-11 days there were no alternatives other than for the refuge



*Now you are truly managers!*

to start pumping and hauling sewage. The refuge procured a diaphragm pump and rented a tank from Moorcroft Construction. Moorcroft Construction served notice that rental of the truck was only a short term solution and that we would need to make other arrangements by spring. RM Elison with the largest household (4) re-routed the waste water line from the washing machine so that the water ran out on the ground instead of into the holding tank. The change reduced pumping to about every 20 days but a dingy gray olympic sized skating rink soon developed. A hue and cry went out from both APNWR and BNWR since the refuges were spending a large sum on pumping sewage plus the weather, -20°F temperatures and 20 knot winds, made the operation uncomfortable at best and a potential safety hazard.

In light of our problem and the fact that the refuge office had no water and consequently no toilet facilities the decision was made by the R.O. after considerable discussion about funding to install a septic system. Refuge buildings are located too close to the Naknek River and soils near the river contained too much clay to permit installation of a normal gravity fed septic system. A septic system with collection station, lift pumps, and a long line running approximately 400 yards to a leach field on high ground was designed.

The contract was bid and awarded to Moorcroft Construction for \$44,840.00. APNWR and BNWR each provided \$17,500 with the balance coming from the R.O. Installation of a buried water line to the three seasonal cabins was accomplished as an add on to the septic system contract for \$7600.00 Moorcroft commenced work about September 1 and the system was on line by about November 1, though some finish work remains but will not be completed until spring due to freeze-up.

There was great rejoicing when the system went on line. The refuge had pumped sewage approximately every twenty days for eight months in temperatures as low as -20°F. Large amounts of money and staff time, both in short supply, were frittered away in the operation.

Rehab of the old NMFS office/warehouse was started in 1982. The old offices were uninsulated, poorly lighted, heated with small portable electric heaters, had bare concrete floors, and lacked water and toilet facilities. The decision was made to rehab the lower floor in 1982 and the upper level in 1983. The lower level contains approximately 2,000 square feet.

Engineering's design called for the existing offices to be almost completely gutted. The lower floor now has two offices for supervisors, two larger offices for staff, a receptionist office, a display area, a wet lab, two bathrooms, and a new boiler system to provide heat. The display area will be utilized by the King Salmon Fishery Resources Station until the upper level is rehabbed. The circulating water system was extended from the adjacent trailer to the office building.

A bid by Titan Construction for \$145,650 was awarded in September. Work commenced in early October and was near completion by mid-January, 1983. The work is generally of good quality and few problems have been experienced with the contract.



One of the most irritating and time consuming chores of the past year was the semi-monthly sewage pumping details. The refuge finally retired from the honey-dipping business in November.

Berns



Rehab of the old NMFS warehouse for office space commenced in October. The room pictured will ultimately be used for display/reception.

Elison



In the interim both APNWR and BNWR moved into temporary office space in an old bunkhouse. Temporary telephone and power were run into the building and an oil fired space heater was installed. The temporary quarters are warm though cramped.

In CY-83 the upper level of the office warehouse will be rehabbed. Offices and a conference room will be built. Plans have already been completed. The invitation for bids should go out in early 1983.

Two rolling sectional doors each 12' x 12' were installed in the shop and office/warehouse. These doors replaced old battered sliding doors which were difficult to operate in warm weather and usually froze shut in cold weather. The insulated shop door cost \$3282.00 installed. The uninsulated warehouse door cost \$3807.00 installed. They are a welcome addition.

Six thermopane windows were installed in the two refuge trailers. The windows replaced the original trailer windows in the living rooms and kitchens which leaked, were drafty, and frosted badly making it impossible to see out of them for most of the winter. The windows cost \$1660.10 and were installed by Glen Miller, our refuge worker provided by the W.O. Near the end of FY-82 approximately \$16,000 was spent by the R.O. for materials to rehab one of the 450 sq. ft. seasonal cabins into a year round residence. The cabin was gutted and all new insulation, wiring, flooring, cabinets, appliances, etc. were installed. Rehab of the cabin by a combination of force account and small contracts was started in November. Work should be completed in early 1983, when hopefully an entry level assistant refuge manager slot can be filled.

Attachment of the old boat dock to the rotting bulkhead used for tie up of the refuge supercub when on floats was modified, (jury rigged) to accomodate the tidal fluctuation (4 feet) in this part of the Naknek River. The dock was extended out into the river and connected to the bulkhead by three pieces of channel iron 18' long. The dock could ride up and down with the tide while the channel iron served as a pivot.

At the end of FY-82 money was obtained to procure a new dock. A dock sixty feet long with two arms 30 feet long extending down stream was ordered by CGS. The dock was supplied by MEECO Marina's Inc. of Oklahoma for \$11,999.00. The dock will be delivered on the first barge in the spring and installed at that time.

### 3. Major Maintenance

The two refuge trailers provide a perpetual maintenance problem. A number of minor problems add up to a major headache. Leaking windows, periodic frost heaving which requires repeated leveling of the trailers, etc. required regular attention.

The underground gas tank, line, and pump were checked out and repaired. The refuge is now able to dispense regular gas from underground tanks instead of 55 gallon drums.



The cabin on the left was rehabbed with YACC labor and is now occupied by Fishery Resources. The cabin on the right is in the process of being rehabbed for year round occupancy for refuge staff.

Elison



What, no  
comments!  
Either the  
reviewers aren't  
as perceptive  
as they used to  
or we're getting  
old. Nice touch  
on the caption.  
LRF

Too young  
to know!

Glen Miller provided expert maintenance and soothing music during his tenure from June - September. Here Glen is preparing to replace uninsulated windows in one of the refuge trailers with thermopane windows, a welcomed addition.

Elison



#### 4. Equipment Utilization and Replacement

A variety of needed equipment was procured in 1982. For the refuge trailers new refrigerators, propane stoves, and washers and dryers were procured to replace worn out appliances that came with the used trailers.

An IBM Correcting Selectric III electric typewriter was picked up excess from the R.O. A variety of office furniture was ordered and received including file cabinets, book cases, coat racks, and lockers.

A 13' Zodiac Mark III was purchased. A Johnson 15 hp outboard and an Evinrude 4½ hp outboard were procured. A variety of camping/survival equipment was purchased for field operations.

A new oil fired heater was purchased and installed in the shop which had been without heat.

A Dodge 4x4 pickup and a Case 550 C front-end loader/backhoe were received from YACC in Fairbanks. The backhoe had a cracked block which required replacement prior to shipment to King Salmon.

A Cessna - 180 and a supercub were received in March and February, respectively. The Cessna is on APNWR's property account and the cub on BNWR's though the planes are shared by both refuges. It became obvious during the spring bear hunt and reinforced during the field season that the 180, while being a nice aircraft, does not meet the refuge needs in most situations. Hunting guides utilize supercubs almost exclusively for their hunting operations. They set up camp along small rough airstrips. The only thing that can follow them into their camps is another supercub. No other aircraft has the ability to fly low and slow for wildlife surveys like the supercub. The 180 simply does not meet refuge needs for law enforcement and field work. The problem has been identified to the R.O. and a cub requested to replace the 180. At this time feedback indicates there is little likelihood of a change. In the interim APNWR has been sharing BNWR's supercub, however, one supercub cannot fulfill the needs of both refuges whether or not they are combined.

*See page 8 all parts in a few*

Pumps, tank, trailer, plus other parts to build a fuel trailer to haul fuel to the float plane dock and to the airport were purchased. Costs were split with BNWR. A variety of equipment was purchased for the shop including; barrel stands, safety jacks, timing light, paint sprayer, hand power tools, etc.

#### 5. Communications Systems

A new radio antenna was erected by YCC enrollees. A new Sunair base station has been on hand for several months but is currently inoperable since we have moved into temporary quarters.

#### 6. Energy Conservation

A 4kw wind generator purchased in FY-81 was erected in May, 1982 and put on line. The generator ran smoothly for about two months but shut down in mid-July. Since the generator was under warranty the supplier came

out, but not until October. The generator was operational for about five days before it again shut down. The supplier claims that the power company is not providing adequate and consistent voltage to the generator (the generator requires power to start operation) and the refuge and power company claim that the power is adequate. The problem has been referred to CGS and Engineering for resolution. In the mean time the wind generator stands motionless. *Probably still does. AAR*

The local power company, Naknek Electric Association (NEA), tried to stymie use of the generator once it was erected. NEA demanded a \$100,000 bond from the FWS for any damage the generator might cause to NEA's system. NEA originally proposed that the power from the generator be metered so that NEA bought the power at wholesale rates from us and then sold it to us at retail rates. Their proposal was couched in different terms but that is what it boiled down to. After considerable discussion with Engineering and CGS it was pointed out to NEA that Congress had passed the Public Utilities Regulatory Policy Act which encouraged use of alternate energy and further directed local utilities to co-operate and among other directives to buy all the excess power generated. NEA withdrew their demands and the wind generator went on line in mid-May.

During its brief period of operation the generator was saving the refuge approximately \$300/ month. Acquisition cost of the generator was approximately \$25,000.  $25 \div 300 = 83.3 \text{ mos.} = \underline{6.9 \text{ yrs.}}$  !

Foam insulation was sprayed around parts of the trailers where air leaks occurred. Six thermopane windows were installed in refuge trailers.

The office rehab should produce large energy savings. Thermopane windows replaced single pane glass windows. Insulation was installed where none had previously existed and an efficient heating system replaced the small portable electric heaters.

## J. OTHER ITEMS

### 1. Cooperative Programs

APNWR is working cooperatively with the local ADF&G office to conduct wildlife surveys. ADF&G has approximately 30 caribou in the northern Alaska Peninsula herd radio collared. APNWR has assisted ADF&G by providing the Cessna-180 and pilot while ADF&G provides an observer, radio equipment, and fuel. APNWR and ADF&G have agreed to fly cooperative moose surveys on the Alaska Peninsula though at this writing weather has prevented any flights.

### 2. Items of Interest

Vernon Berns arrived in late February to serve as the assistant refuge manager/pilot. Vern served as pilot for both APNWR and ~~ANWR~~ BNWR until BNWR was able to fill a pilot's position in November. *B*

Several VIP visits to the refuge occurred in 1982. Director Robert Jantzen accompanied by R.D. Keith Schreiner and R.O. staff visited the





A 4 kw wind generator was installed in early 1982. Here the tower is being erected.

Berns



King salmon  
run!!! why  
else!

Director Jantzen visited the refuge in June. Pictured from left to right are Dale Moore, pilot; Jon Nelson, ARD-Fisheries, Ann Rappaport, E.D.; Keith Schreiner, R.D.; Bob Jantzen, Director; and Jan Riffe, ARD-WR.

what is an E.D.

Elison

"Extra dimension"  
JEW



This YS-11 made an emergency landing on the Naknek River in February, 1982. There were no injuries and minimal damage to the aircraft.

Elison



Crab fishermen on the Alaska Peninsula take their work seriously.

Elison



refuge on June 24-25. The group made one scheduled stop on June 27 when weather prevented the group from flying from Bethel into Dillingham. Director Jantzen got an opportunity to view refuge facilities and see the refuge under less than ideal weather conditions which is the type of weather we usually work in. To our delight Director Jantzen was not impressed with the condition of facilities at King Salmon and directed that they be up-graded.

In late July Assistant Secretary Ray Arnett, Special Assistant to the Secretary for Alaska, Vernon Wiggins, and R.D. Schreiner made an unscheduled two day stop at King Salmon when weather prevented them from following their planned itinerary. The visit afforded the refuge staff the opportunity to put the bug in another important ear that facilities need up-grading and the refuges need additional funds.

In August Associate Director for Wildlife Resources, Dr. Bob Putz and Mammals and Non-Migratory Bird Coordinator John Carlson from the W.O. visited the refuge during a program review of Alaska. They were given a whirlwind tour of the refuge. Dr. Putz was a good listener and a pleasure to visit with.

In mid-February a Reeve Aleutian Airways, YS-11, a twin engine passenger aircraft made a forced landing on the Naknek River about one mile short of the runway after the aircraft lost one engine to mechanical problems and the second engine caught fire. Fortunately ice on the river was at its thickest for the winter. The plane barely cracked the ice and everyone walked away unharmed though requiring clean underwear. The pilot did an excellent job of handling the emergency. The aircraft sustained very little damage other than bent props and damage to the landing gear and flaps covering the gear. The plane was raised using airbags, the landing gear lowered, and the plane then towed off the ice using a dozer. The plane was repaired and flown out of King Salmon in early March. *AMAZING!*

### 3. Credits

Sections A, C, D, E, F, I, J, and K were written by Elison. Berns wrote sections B, G, and H. Elison edited the N.R. Kelie Swanson typed the report.

### K. FEEDBACK

The administrative reorganization for the Pavlof Unit and combining APNWR and BNWR were good decisions that are fully supported by APNWR staff. Though R.M. Elison is not ready to leave the outstanding recreational opportunities of the Bristol Bay area, he supports the decision and is a strong advocate for it. As a matter of management strategy in the future, the management of similar resources in close juxtaposition from the same Headquarters site by more than one refuge should be avoided. Duplication of staff, equipment, facilities or sharing of same is needlessly redundant, wasteful, and difficult to keep track of administratively.

*Sounds obscene, Glenn! AT*

APNWR and probably most other Alaskan refuges are on the defensive when discussions of and planning for land management take place. Land management policy and relationships in Alaska are rapidly evolving. The state, native groups, oil and other private industry all are aggressively pursuing their interests and influencing policy for management of refuge lands. The Alaska National Interest Lands Conservation Act did not provide Alaska refuges with the same degree of protection as most refuges in the rest of the system. At the very least the FWS must be able to collect, present, and defend high quality resource information in public forums if resources are to receive the protection they need. At present, due to lack of funding, staff and perhaps other reasons, this capability does not exist. At this critical juncture APNWR is a lame player in the fluid land relationships of the Bristol Bay area. I suspect many other Alaskan refuges find themselves in similar straits.

*How true.*

*Well said  
KFH*

*"Or worse!"  
Red.*





yes?

PERSONNEL

1. John Sarvis, Refuge Manager, PFT, GS-485-12 6/23/74 - Present
2. Michael L. Nunn, Assistant Refuge Manager,  
PFT, GS-485-11 7/13/80 - Present
3. Christian P. Dau, Wildlife Biologist,  
PFT, GS-486-11 1/20/81 - Present
4. Alan Rogers, Maintenance Worker, PFT,  
WG-4749-8 8/20/81 - Present
5. Barbara M. Bull, Refuge Assistant (typing),  
PFT, GS-303-5 4/04/82 - Present

Review and Approvals

John Sarvis 2/29/83  
Submitted By Date

Alaska Reg. Office (R-7) Date



## PAVLOF UNIT - ALASKA PENINSULA NWR

I. GENERALA. Introduction

The Alaska Peninsula NWR was created with the passage of the Alaska National Interest Lands Conservation Act (ANILCA) on 2 December 1980. In 1981, management responsibilities for the Pavlof Unit of the APNWR was given to the staff of the Izembek NWR. The Cold Bay office of the INWR is more centrally located and, hence, logistically able to adequately perform the required management functions. (Fig. 1)

B. Staffing and Funding

Management responsibility was transferred from the Alaska Peninsula NWR in King Salmon to the Izembek NWR headquarters in Cold Bay in January 1982. No personnel or funds were allocated for the Unit, however, \$5,000 was charged to the King Salmon office to help defray costs of surveys. It is anticipated that additional funds will be available in 1983.

C. PlanningMaster Plan/Management Plan

The Refuge Comprehensive Conservation Plan for APNWR is due for completion in December 1983. Management alternatives for the Pavlof Unit had been developed by the end of 1982. The Pavlof Unit also lies within the area being considered in the Bristol Bay Cooperative Management Plan mandated by ANILCA. Possible land trades will be identified in the plan which could consolidate refuge lands and facilitate their management.

II. EQUIPMENT AND FACILITIES

Equipment and facilities necessary for management of the Pavlof Unit-APNWR were made available from those existing at the Izembek NWR. Although some funding (see Section I. GENERAL, B. Staffing and Funding) was made available, this covered only some of the staff time performed by personnel of the Izembek NWR.

III. HABITAT MANAGEMENT

The boundary of the Pavlof Unit-APNWR encompasses an array of Native, State and private inholdings with the occasional area of 'free and clear' refuge land. Our management philosophy is to attempt to hold-our-own with respect to fish and wildlife populations and their habitats. We recognize the need to work closely with adjacent landowners and keep them aware of the status of fish and wildlife populations on their lands. This will be an essential element in the joint management that will be necessary on these lands.

Regulations pertaining to access and use of ANILCA refuges, one of which is the Alaska Peninsula NWR, can be more liberal than those occurring on other Alaskan refuges. When the status of all lands within the refuge boundary

is determined, negotiation on management direction can be undertaken. Various management options are presently being analyzed as part of the Master Plan and Bristol Bay Cooperative Management Planning process.

### Public Participation

On 3 March the staff of the Izembek NWR held a public meeting in Cold Bay to discuss the Pavlof Unit of the Alaska Peninsula NWR. Management responsibilities for this unit were transferred to the Izembek NWR in January of 1982. The meeting was attended by ~60 residents of Cold Bay (~30% of the adult population) and topics discussed included ANILCA itself, new refuge boundaries, boundaries of Native selected lands within the PU-APNWR and rules and regulations relating to ANILCA refuges. The latter topic was of the greatest interest to locals who were concerned with what they could do and where. Local residents were basically of two types, one group being so-called 'squatters' who were living in trespass on the refuge and the other being hunters and fishermen who were mainly interested in boundaries and allowable means of access.

The 'squatter' question was not dwelled upon, as the involved individuals were being dealt with privately. RM Sarvis lead and moderated a lively discussion of local fish and wildlife resources and their use and what our management philosophy was on the PU-APNWR. A more liberalized approach to access was proposed by the refuge staff and after considerable discussion a consensus of opinion was reached. Travel by ORV of 1500 pound gross vehicle weight or less on existing trails or ruts was allowed in the segment of the PU-APNWR bounded by King Cove Corporation land and the main course of Russell Creek and by vehicles of unrestricted weight on roads and trails in the area bounded by the boundaries of the Izembek NWR, State of Alaska airport property, King Cove Corporation land and an established road and trail between the intersection of the Frosty Road and the Izembek NWR boundary and Russell Creek (Fig. 2)




A primary stumbling block at this public meeting was our lack of good quality maps. Some participants had problems with the terms "Draft" and "Preliminary" which graced our maps from Realty (RO) and the designation of use areas on 1:250,000 scale USGS maps could only be done in an approximate way at best. The obtaining of 1:63,360 scale (or smaller) mapping is a high priority need for the lower Alaska Peninsula.

### Law Enforcement

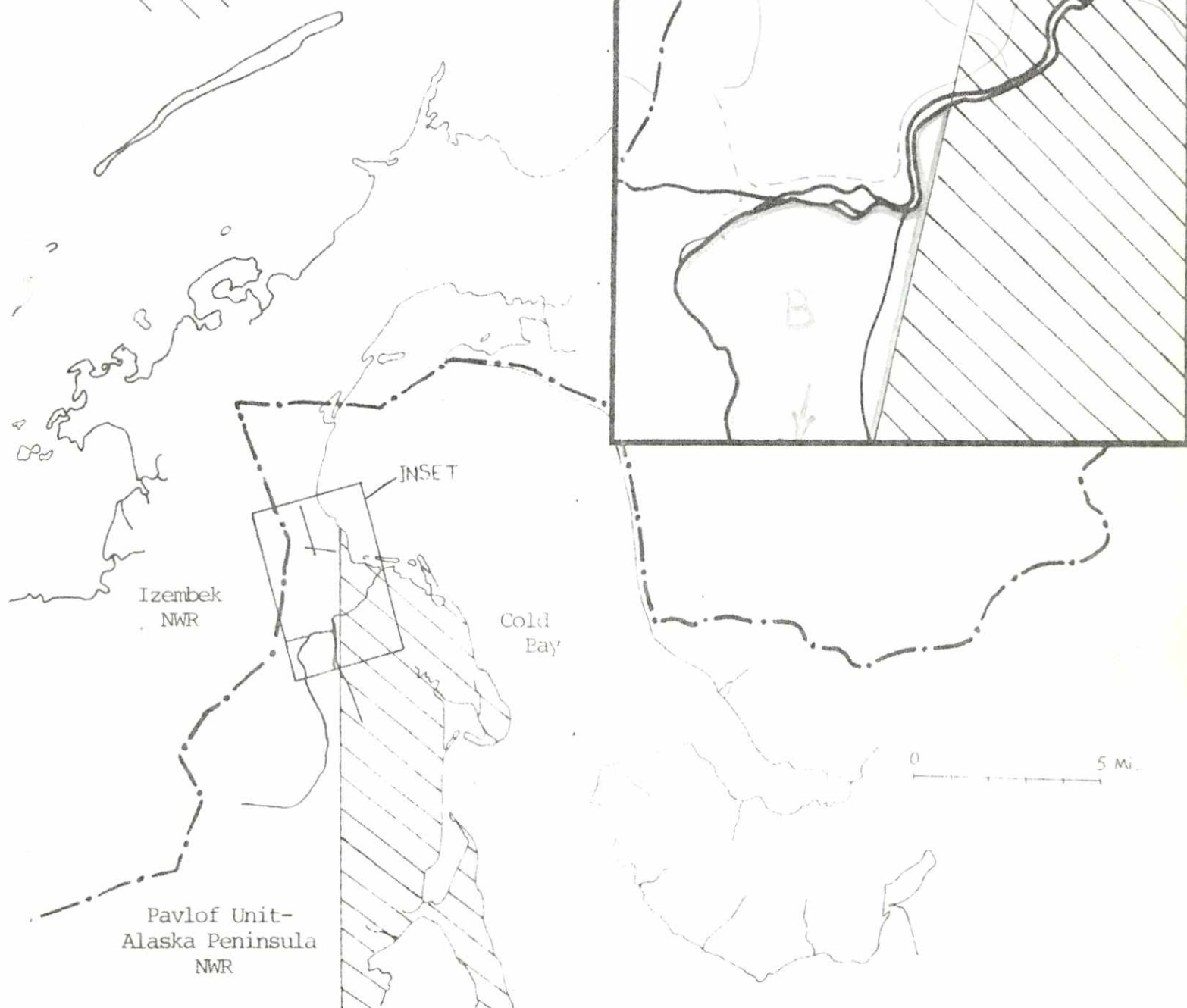
Included within the refuge boundary created by ANILCA are lands within a mile or two of the city of Cold Bay. These lands are within an area used extensively by the military during World War II and are covered with quonset huts, dilapidated buildings and other war-time habitations. Nonetheless, they became part of the refuge on 2 December 1980.

Prior to ANILCA the lands in question had been under the administration of BLM. In late 1978 and early 1979, 24 claims for homesites and/or headquarter sites were filed with BLM in the area. The claims were all illegal since the lands had been withdrawn from this type of appropriation since 25 March 1974. However, BLM did not notify the applicants of that fact, so they all assumed they were someday going to get the land and some began using it.



 Izenbek NWR boundary  
 Estab. road system  
 State of Alaska Airport property

AREA B: Estab. trails  
open ( $\leq 1500$ lb. GVW)



In February 1982, eight persons were living illegally on refuge lands, two had property stored in a quonset hut they had occupied in the past, and one had a mobile home parked in the area that was not occupied.

After consultation with Refuges in Anchorage, the Law Enforcement Division, and BLM, a meeting with the 'squatters' was conducted on 25 February, 1982. The history of land status in the area and possible land exchanges in the future were discussed. We also explained the delay in notifying them of their trespass, since we had just received maps, a description of the area and management responsibility for the Pavlof Unit.

After much discussion, an agreement was reached that everyone, including their belongings, would be removed by 1 September 1982. On 26 February certified letters were mailed to each party, however, they all refused receipt of the letter at the Post Office. The letters were then hand-delivered (Letter attached). As a result, our popularity rating was at an all time low. Therefore, a public meeting was held on 3 March to discuss the new refuge lands with the community. As expected, the subject of the 'squatters' and status of access dominated the discussion. The meeting was worthwhile, increased everyone's understanding of the situation and helped clear up many misunderstandings. By August, only one had made any effort to move and one couple had even added a room on to their mobile home. Therefore, on 13 August, a second letter of reminder was hand-delivered to each squatter. (Letter attached)

By 1 September, they were all moved with the exception of the unoccupied mobile home owned by a non-local. Since it was ready to move, a 5-day extension was granted. On 7 September, refuge staff began cleaning up the sites. The first site visited contained 10 pick-up loads of junk which had to be hauled off; the others were not quite as bad. The sites have been monitored since September to insure that no one moves back in.

Finally, after everyone had moved and the problem was over, BLM sent letters to each land applicant in September saying their claims of 3 years earlier were not valid (See letter included).

We, at first, thought that it was unfortunate that these lands were ever included in the refuge since they had little wildlife value and were severely restricting the growth of the city of Cold Bay. It appears, however, that through the Bristol Bay Cooperative Management Plan, wildlife may benefit in the end. The lands have been identified for possible trades involving the submerged lands in Izembek Lagoon and the calving area of the Cold Bay caribou herd near the Black Hills.

#### IV. WILDLIFE

##### A. Threatened or Endangered Species

No threatened or endangered species are known to use the Pavlof Unit-APNWR. The area is along a possible route of spring and fall migration of Aleutian Canada geese, however, their presence has not been documented.



Nunn the (gun?)  
or



The remains of WWII quonset huts on the Pavlof Unit were illegally resided in by several individuals. The squatter problem was successfully resolved in 1982 when all squatters moved by the September 1 deadline, *shortly before the Napan run.*  
(363)7

Sarvis (8/31/82)

Street people -- but where's the street!  
RSP



A trespasser's structure on a portion of the Pavlof Unit of the Alaska Peninsula National Wildlife Refuge.

(363) 6

Sarvis (8/31/82)



*Rustic!  
LRF*

. . . and a different 'scene' of the same structure.

(363) 4

Sarvis ( 8/31/82)





*New Refuge Aircraft  
Budget Restrictions  
must be pretty  
bad. x*

Debris litters the ground around another 'squatter's abode'.

(363) 13

Sarvis (8/31/82)



. . . and a different 'scene' of the same structure.

(363) 15

Sarvis (8/31/82)



IN REPLY REFER TO:

## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Izembek National Wildlife Refuge  
Pouch 2  
Cold Bay, Alaska 99571  
532-2445

Feb. 26, 1982

The lands which you are occupying are now part of the Alaska Peninsula National Wildlife Refuge. As we discussed at the meeting last night the Fish and Wildlife Service believes you are occupying these lands illegally. Therefore this cannot be allowed to continue.

We ask that you begin making arrangements to live and store your belongings elsewhere. Again as was discussed at the meeting and in order not to be too great a hardship on you, we agreed to allow you up to Sept. 1, 1982 to remove yourself and personal possessions. After that date, anything remaining will become the property of the government.

If you can prove that you have a legal right to occupy the land you are now on we would like to hear from you and reconsider your status.

Thank you for your cooperation and understanding.

Sincerely,

John Sarvis  
Refuge Manager





IN REPLY REFER TO:

## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Izembek National Wildlife Refuge  
Pouch 2, Cold Bay, Alaska 99571  
532-2445

August 13, 1982

As we said in our last letter on February 26, 1982, you are illegally occupying lands within the Alaska Peninsula National Wildlife Refuge. This follow-up letter is to reaffirm that you must remove yourself and your belongings by September 1, 1982.

If you do not leave by September 1, 1982, Fish and Wildlife Service officers (pursuant to Title 50 of the Code of Federal Regulations, part 27.92) will have to issue citations to anyone still remaining. This violation could entail a fine of \$500.00 and/or 6 months in jail and will require a mandatory appearance in U.S. District Court in Anchorage.

If you have any questions or need further information, please feel free to contact us by phone or stop by the office.

Sincerely,

*John Sarvis*  
John Sarvis  
Refuge Manager



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Alaska State Office  
701 C Street, Box 13  
Anchorage, Alaska 99513

11.  
IN REPLY REFER TO  
2563 (941)  
AA-23655

SEP 27 1982

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

## DECISION

AA-23655  
Homesite

### Claim Invalid Petition for Classification Rejected

On December 19, 1978, filed a Petition for Classification and a Notice of Location for a homesite on lands located in Sections 13 and 24, T. 57 S., R. 89 W., Seward Meridian.

The regulations pertaining to segregation of lands set forth under 43 CFR 2091.1- provide:

Except where regulations provide otherwise, all applications must be accepted for filing. However, applications which are accepted for filing must be rejected and cannot be held pending possible future availability of the land or interests in the land, when approval of the application is prevented by:

(a) Withdrawal or reservation of lands.

Although, all applications and notices of location of settlement, unless such notice alleges settlement prior to the date of withdrawal, are unacceptable for recordation because of the segregative affect of the withdrawal, the above described claim was noted to the records. As recorded the claim lies within an area that was added to Public Land Order (PLO) 5180 of March 9, 1972, by PLO 5418 of March 25, 1974, which withdrew the lands from all forms of appropriation under the public land laws for classification and protection of the public interest. The lands were further withdrawn by Section 302 of the Alaska National Interest Lands Conservation Act (ANILCA) of December 2, 1980, for the Alaska Peninsula National Wildlife Refuge and placed under the jurisdiction of the United States Fish and Wildlife Service.

The lands in question have been withdrawn from this type of appropriation from March 25, 1974, to the present and therefore the claim must be declared invalid.



Further, the applicant filed a Petition for Classification for homesite purposes. The regulations pertaining to classification 43 CFR 2450.7 state that:

The filing of a petition-application gives no right to occupy or settle on the land;  
and 43 CFR 2400.0-3(a) states:

All vacant public lands, except those in Alaska, have been, with certain exceptions, withdrawn from entry, selection, and location . . . under the Act of June 26, 1934. . . . [Emphasis added].

Therefore, the lands in question were not available for classification under the Taylor Grazing Act as this act was never extended to Alaska. The lands then might have been made available under Section 202 of the Federal Land Policy and Management Act of 1976. However, prior to the lands being considered for such land use, they were withdrawn by Congress as stated above, and are no longer under the jurisdiction of the Bureau of Land Management, and the Petition for Classification is hereby denied. The case will be closed of record when this decision becomes final.

An appeal from this decision may be taken to the Board of Land Appeals, Office of Hearings and Appeals, in accordance with the attached regulations in Title 43 Code of Federal Regulations (CFR), Part 4, Subpart E. If an appeal is taken, the notice of appeal must be filed in the Alaska State Office of the Bureau of Land Management within 30 days of the receipt of this decision. Do not send the appeal directly to the Board. The appeal and case history file will be sent to the Board from this office. The regulations also require the appellant to serve a copy of the notice of appeal, statement of reasons, written arguments or briefs on the Regional Solicitor, Alaska Region, U.S. Department of the Interior, 510 L Street, Suite 100, Anchorage, Alaska 99501. To avoid summary dismissal of the appeal, there must be strict compliance with the regulations. Form 1842-1 is enclosed for additional information.

/s/ ROBERT E. SORENSON

Chief, Branch of Lands  
and Minerals Operations

Enclosure:  
Form 1842-1  
Appeal Regulations

## B. Migratory Birds

The composition of bird species occurring on the Pavlof Unit-APNWR is similar to that reported for the Izembek NWR (See Section G.1. WILDLIFE, Wildlife Diversity of the Izembek NWR 1982 Annual Narrative Report). The Pacific side of the Alaska Peninsula is characterized by areas of steep vegetated hillsides and cliff faces broken by small valleys and associated drainages. The cliff areas provide a small amount of habitat for pelagic cormorants and possibly black-legged kittiwakes and they, along with associated rocks, small islets or sea stacks may be used as nesting areas by bald eagles.

The whistling swan is the primary nesting species in wet marsh habitats of the PU-APNWR. The segments of this resident population nesting adjacent to the Izembek NWR are discussed in detail as one unit in the Izembek NWR Annual Narrative Report. The large wetland area north of Pavlof Bay, some of which is part of the PU-APNWR, supports nesting swans but their numbers have not been determined.

Bays and lagoons along the Pacific shoreline of the PU-APNWR are important to migrant and wintering waterfowl. Seaducks, primarily harlequin ducks, scoters, oldsquaw and Steller's eider predominate. Black brant use most bays for short periods during spring migration. Emperor geese use essentially the entire coastline in moderate numbers during fall, winter and spring. Areas of special importance are the Jackson and Chinaman Lagoon areas along the west side of Pavlof Bay, and Mortensen, Thinpoint and Old Man's Lagoons in Cold Bay. The coastline of the PU-APNWR, including these key areas, is flown each spring as part of a comprehensive survey of emperor geese in southwestern Alaska (See the Izembek NWR Annual Narrative Report for further information).

## C. Mammals and Non-Migratory Birds

### Brown Bear

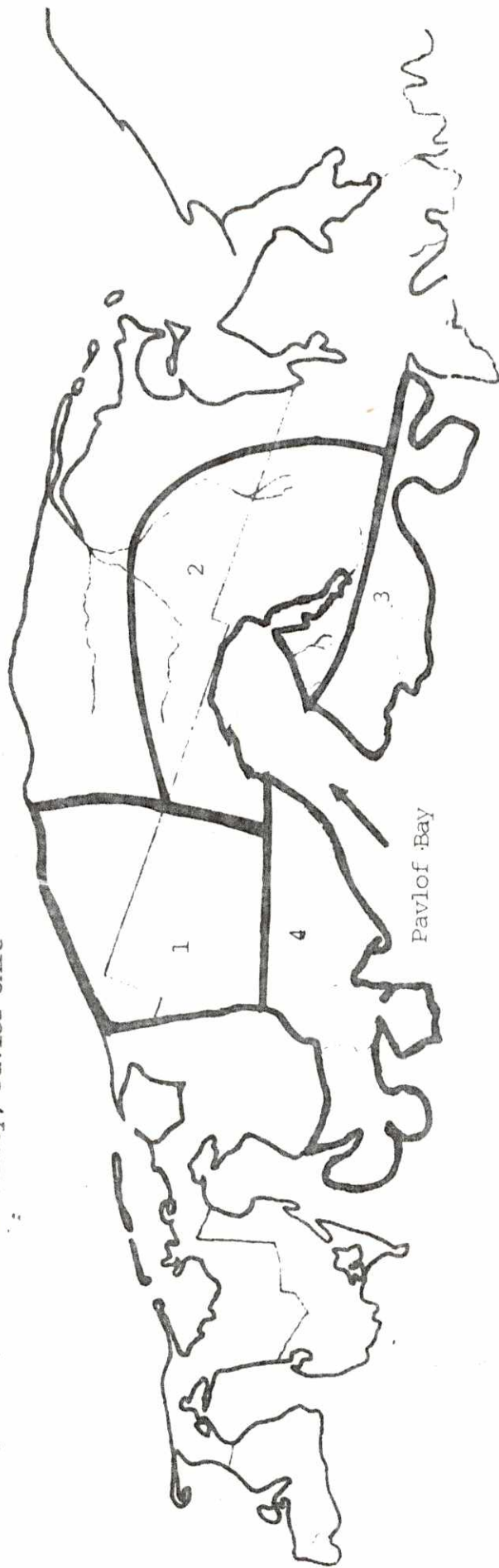
This was the first year for an aerial survey of brown bear on the Pavlof Unit of APNWR. Two morning flights and one evening flight were conducted on 19 and 20 August, for a total of 6 hours and 23 minutes survey time and a total of 87 bears were observed. (Fig. 3 ). Rivers and streams received primary emphasis. One segment, Leonard Harbor to Chinaman Lagoon, was not flown due to conflicts with required travel and poor flying conditions.

Sparse alder cover on the north side of the peninsula provided good visibility and it is felt that few bears were missed. Fairly heavy alder cover, particularly in the canyons around Pavlof Bay and Beaver Bay, undoubtedly resulted in bears being missed.

### Caribou

Portions of the calving and wintering areas of the southern Alaska Peninsula caribou herd occur on the Pavlof Unit-APNWR. These areas are depicted in a figure in the caribou section of the Izembek NWR Annual Narrative Report. Also discussed is productivity, harvest and status of this herd.

Figure 3. Brown Bear Survey, Pavlof Unit



	Singles	Sows w/cubs of year				Sows with yearlings				Total
		w/1	w/2	w/3	w/4	w/1	w/2	w/3	w/4	
Unit 1.	8	0	0	2	0	0	1	0	0	19
Unit 2.	27	0	2	1	0	1	0	0	0	39
Unit 3.	16	1	1	0	0	0	1	0	1	29
Unit 4.	Not Surveyed									0
										87



### Marine Mammals

The distribution and abundance of marine mammals along the Pacific side of the Alaska Peninsula NWR is little known, however, it is likely that sea-lions and harbor seal haul-out in suitable locations. Sea otter occur throughout the area in moderate to low numbers.

### D. Other Wildlife

#### Fisheries Resources

Salmon resources of the Pavlof Unit-APNWR are important and of commercial proportions. Four species of salmon spawn in the area with pink and chum salmon predominating along the Pacific side.

Hoodoo (Sapsuk) Lake is a primary spawning area draining north from the PU-APNWR to the Bering Sea. The Caribou River, another component of this system combines with the Sapsuk River and flows into Nelson Lagoon. Catch and escapement data for this system in 1982 amounted to approximately 435,000 and 216,000 fish, respectively. (Table 1.)

The Commercial Fisheries Division of the Alaska Department of Fish and Game monitors catch and escapement on the primary drainages within the PU-APNWR and has identified systems of important fishery value within the area (Fig. 4)

Table 1. Catch and Escapement Data for Salmon in the Hoodoo (Sapsuk) Lake/Caribou River Drainage, 1982<sup>1</sup>

	Species					Total
	Red	Silver	Chum	King	Pink	
Catch	229,100	170,700	21,300	13,500	100	434,700
Escapement	180,000	-	29,000	7,000	-	216,000

<sup>1</sup> Data supplied by Alaska Department of Fish & Game, Division of Commercial Fisheries, Kodiak.

## V. INTERPRETATION AND RECREATION

### A. Hunting

Caribou and brown bear are the primary species hunted (See Izembek Narrative Report for caribou hunting). Eight permits for guiding bear hunters were issued in 1982. The season was open in the spring, 10 through 24 May.

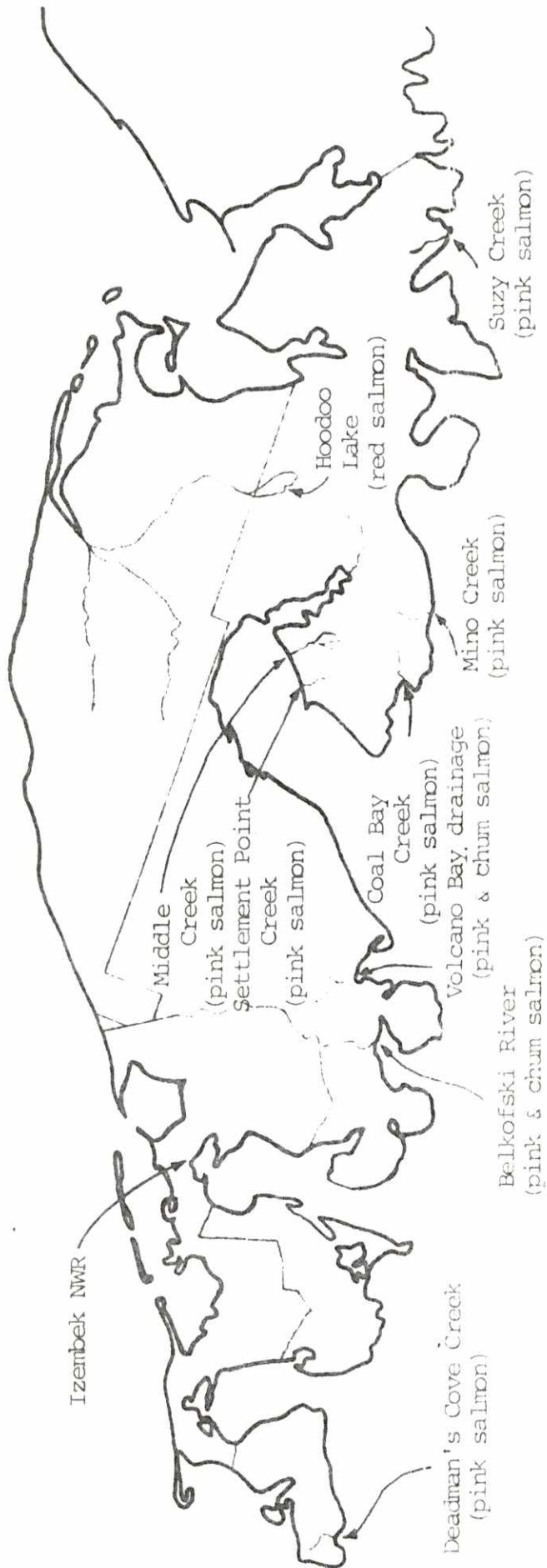


Figure 4. Important salmon spawning systems within the Pavlof Unit of the Alaska Peninsula NWR

The special conditions of permits issued for guiding caused some consternation among the guides. They had no problem with the same conditions for operations on Izembek, but they couldn't seem to accept them on new refuge lands. Several of them got together and appointed a spokesman who contacted Secretary Watt's office. On 14 May, AWD Jan Riffe and Refuge Supervisor Don Redfearn met with the guides in Cold Bay. Some concessions were made for the 1982 season and it was agreed that the guides would have an opportunity to discuss the special conditions prior to the next open season in the fall of 1983.

Several of the guides who held permits for the Pavlof Unit also had Native lands within their exclusive guiding areas. At one point, just before the season opened, the King Cove Corporation decided that they would not permit bear guides to operate on their lands. This decision directly affected four guides who had booked clients for hunts planned on King Cove land. King Cove Corp. reversed their decision for the 1982 season but told the guides involved that they would not be permitted to hunt in future years on King Cove Corp. lands. If the King Cove Corp. doesn't permit bear hunting in the future, hunting pressure will increase on the refuge.

#### B. Sport Fishing

Sport fishing is a popular summer activity on refuge streams which support good runs of chum, silver, pink and red salmon as well as dolly varden. The most popular fishing area, lower Russell Creek, while inside the refuge boundary, has been conveyed to the King Cove Corporation. Access is guaranteed by an easement for the Russell Creek Road and a State easement corridor for recreation on both sides of the stream.

Trout Creek is also an important sport fishing stream. The refuge boundary crosses the stream a couple hundred yards up from the mouth, with the lower portion being in the refuge, except the mouth, where the boundary again crosses.

### VI. OTHER

#### Credits

This report was written by Mike Nunn and Chris Dau, typed by Barbara Bull and edited by John Sarvis.



12-7-88	12-8-88	Lastwood NWR	John A Smith
12-8-88	12-9-88	Lastwood WMO	D. Gellum
12-9	12-16	Crosby WMO	Heuler
12-15		Medicine Lake	Shad Fuller
12-27/88		CMR Jordan, MT.	E. Bucher
12/30	1/17	CMR Sedgwick	Marty Heuser
1/24/89	2/1/89	Bowdoin	John R Foster
2/6/89	2/14/89	CMR Lewistown	W. Hearn
2/15/89	2/24	Beaton Lake	M. Anderson
2/28/89	3/1	Netroff	Nancy Gilbertson
3/10/89		Red Rock Lake	Tom J. Muralt
3/16/89	3/30	National Elk Refuge	Hi John Sarris
4-6-89	4-17-89	Fish Springs NWR	Jim Savary
4/21/89	5-3-89	Quay NWR	Keith Hansen
5-8-89	5/15/89	Brown Park	John S. Gumble
5/17/89	6/5/89	Seabrook NWR	Fran Morris
6/12/89	6/16/89	Napa NWR	Eugene Patton
6/20/89	6/20/89	Mont Hume NWR	Hi Glenn
6/23/89	6/26/89	Kirwin NWR	Dave Whelan
6/28/89	7/10/89	Quinn NWR	Will Suthers
			Nave Killey



Date In	Date Out	Station	Signature	Comments
12/28/87	12/30/87	Squaw Creek	Paul S Bell	
1/4/88	1/5/88	Lehto NWR	George Gage	Wow!
1/11/88	1/12/88	Union Slough	John McCain	
1/19/88	1/26/88	Argus Fall WMD		
2/1/88	2/3/88	LITCHFIELD WMD	M. KERSCHBAUM	
2/5/88	2/10/88	Rice Lake NWR	John G. Gage	
2/17/88	2/22/88	Morris WMD	Alfred Radtke	
2/23/88	3/3/88	Big Stone NWR	W. Heinecke	
3/4/88	3/7/88	Sherburne NWR	Ed Gage	
3/10/88	3/30/88	Min Valley NWR	Ed Gage	And we some task!
4/12/88	4/25/88	Detroit Lakes WMD	Edward G. Gage	
4-26	5-5	Agassiz NWR	Jack Gage	
5-9-88	5-9	Rainwater Basin WMD	Al Trout	
5-12-88	5-15-88	FORT NIobrara-VALENTINE NWR COMPLEX	Bob Ellis	
5/18/88	5/19	Greenwood NWR	Bob Ellis	
5/31	6/28	Lacreek NWR	Bob Ellis	
6/30	7/7/88	Lake Andes NWR	Bill Wilson	
7/8/88	7/18/88	Madison WMD	David Gilbert by DET.	
7/15	7/27	SDL		
7/28	8/05/88	Wau Bay NWR		
8/8/88	8/16/88	Townsend NWR		
8/17/88	8/24/88	Valley City WMD	Don Dule	
	8/29/88	Devils Lake WMD	Mike Menue	
9/9/88	9/9/88	Amateurwood NWR	Jon R. Gage	
9/12/88	9/15/88	NP NWR	Jim D. Gage	
9/16/88	9/23/88	Kulm WMD	Bob Vander Berg	
9/24/88	10/5/88	Longlake NWR	Steve Knott	
10/6/88	10/21/88	Audubon NWR	Dane Potter	



[illegible]



[illegible]



IN	OUT	REFUGE	MANAGER	COMMENTS
2-28	2-27	Wertheim		
3/5/87	3/12	Great Swamp	Don G. Spencer	
3/16/87	3/23	Timonium NEC	Dick August	
3/25	4/3	Erie	Tom Mountain	
4-6	4-9	Inogwiois	Ray Wittenmire	
4/10/87	4/14	Montezuma	Gore Hackett	
4/16/87	4/21/87	Marijuana	Robert C. Gaffney	
4/23	6/15	Moosehorn	Douglas Muller	
6/16	6/17	Petit Manan	T. Goettel	
06-22-87	06-23-87	Rachel Carson	A.C. Frenkitt	
6/26	6/30	Parker River	J. Ellis	
7/4/87	7/6/87	Great Meadows	Lloyd Guly	
7-13	7/20	Ottawa	Michael Tansy	
7/24/87	7/28	Muscatuck	Lee Herzberger	
7/31/87	8/3/87	Shawnee NWR	Joe Hardy	
8/5/87		Seney NWR		
8/8	8/11	Holston	R. Bice	
8/17/87	8/29	Necedah NWR	I. Sanford	
9/1/87	9-9	upper Mississippi Refuge	Joe Sanford	
9-16-87	9-21-87	Trempealeau NWR	Bob Bartel	
9/24	10/5	La Crosse	Dick Steinbach	
10/6	10/9	McGregor Dist.	John Lyons	
10/13	10/18	Savanna Dist.	Larry Wargusch	
10/20	10/22	Chautauqua NWR	Eric Sings	
10-26-87	11-2	Crab Orchard	Normed Olesce	
11/9/87	11/20/87	Calhoun Dist.	Normed Olesce	



IN	OUT	REFUGE	MANAGER	COMMENTS
7/11	7/5/86	Lake Woodruff	Leon Rhoder	
7/21	7/22/86	Wildlife Mgmt Bowl.	Wendell Metzger	
7/24	7/31/86	Okfenokee Swamp	John D. Scherer	
8/1/86	8/1/86	Coastal Ref.	John P. Davis	
8/11	8/18	Piedmont	Ronnie Shell	
8/25	8/28	Cape Roman	HR Harwin	the opportunity to do something important
9/2	9/4	Santee NWR	Glenn W. Bond, Jr.	
9/5/86	9/10/86	Carolina Sandhills	Harold C. Sordlin	
9-15-86	9-18-86	Pee Dee	Bruce Bickhardt	
9/22	9/24	Alligator R.	John Taylor	Good old days.
09-29-86	09-30-86	Cedar Island	Hubert Buchanan	
10-2-86	10-6-86	Mattamuskeet	Larry Smith	
10-11-86	10/20/86	Back Bay Great		
10/23	11/3/86	Bismal Swamp	JP Daniel	
11/5/86	11/20/86	Eastern Shore	Sherman W. Davis	
11/26/86	12/1/86	PRESTONVILLE	Bangor	
12/2/86	12/10	Chimcoteague	Dan Holland	
12-11-86	12/17	Blackwater	Don R. Perkin	
12-18-86	12/22	Mason Neck NWR	Thomas W. Stewart	
12-26	1/5/87	Eastern Neck	St. Olson	
1/6/87	1/13/87	Prime Hook		
1/14/87		Bombay Hook	Paul D. Daly	
1/28/87	2-9-87	Edwin B. Forsythe	Dan Beall	
2/12/87	2/23	Ninigret	Charlie Blair	



IN	OUT	REFUGES	MANAGER	COMMENTS
11/18/85	11/22/85	Hillside	Donny Browning	
11/27/85	12/4/85	Felsenthal	Bob Bridges (mb)	
12/4/85	12/6/85	D'Arbonne	Lee R. Fulton	
12/11/85	12/19/85	Tensas River	Tuck Stone	
	1/7/86	Catahoula	Patrick Hagan	
1-10-86	1-14/86	Lacominie	Paul Johnson	
1-18-86	1-22-86	Bozue Chella	Steve Joyner	
1-24-86	1-29-86	MS Sandhill Crane	George Chalk	
		Bon Secour		
3-10-86	3-13-86	Choctaw	Neil McHalla	
3-19	4-7	Noxubee	Tisdale	Good job Glenn, good job
4-11-86	4-16-86	Wheeler	John J. Cotton	
4-17-86	4-22-86	Ecupaula	Ling	
4/28/86	4/28/86	St Vincent	Halloran	
4/30	5/5	St. Marys	W. H. H.	
5/9/86	5/12	Chickasaw	G. Carowan	
05/10	5/20	T. N. DING DARING NWR	R. Hight	
5/21	5/23	Pat. Key Deer	SR Dr	
6/4	6/4	Coulbarn Islands	Deborah Holle	
6/6	6/9	Vieques	Sean Turner	Looks like you are keeping busy but I like it better here.
6/12	6/16	Culebra	Mr. W. J.	
6/20	6/20	Socachatchee	Bellevue	
6/30	7/2	Isle de la Pte	B. Weely	
7/16	7/13	Minist Island	L. Mann	



IN	OUT	REFUGE	MANAGER	COMMENTS
12/17/84	2/22/85	Salton Sea	Jim Savery	
3/8/85	3/16/85	Kofa NWR	Wilton Haderick	
3/18/85	4/3/85	Imperial	Will Hildebrand	
4/9/85	4/29/85	Cibola	Nancy Savary	
5/2/85	5-3-85	Harasson NWR	James R. Good	Quite an operation.
5/6/85	5/8/85	CABEZA PRIETA NWR	Linda Hagen	
MAY 18 1985	MAY 16 1985	MOSQUE DEL APACHE	Bill Hutchinson	
5/17/85	5/21/85	SAN ANDRES	Patricia Hagan	
5/28/85		Muleshoe	Rod Krey	
6/12/85	6-17	Wichitas	Bob Kain	
6/20	6-25-85	Washita	Kemp Butts	
7/2/85		Crow	Z. J. Miller	
7/16/85	8/2	Hagerman	Jim Willis	
		Pishomirgo		
9-9-85	9-18	Sequoia	John Albin	
9-20-85	9-25-85	Holla Bend	Madison D. Perry	
10-1-85	10-2-85	Big Lake	Don Koon	
10-4-85	10-9-85	TENNESSEE	Carroll Ryan	
10-10	10-17-85	Cross Creeks	Natasha	
10-21	10-23	Reelfoot	Wendell Crews	
10-24-85	10-28	Hatchee	Maya Tschol	
10-30-85	11/4/85	Wapanocca	Jim Miller	
11/5/85	11/7/85	White River	Marvin Hurdle	
11/2/85	11/14/85	Yazoo	Jim Miller	



IN	OUT	REFUGE	MANAGER	COMMENTS
2/24	2/27	ANKENY	Cliff Himmel	
3/1	3/6	Baskett Slough	R. Lettenmaier	
3/6	3/12	TOPP. W. W. R.	D. Fern	
4/3/84	4/4/84	Conboy Lake NWR	Harold Cole	
		Columbia		
4/16	4/18/84	Kootenai	Larry Rogers	
4/19		Turnbull	Don White	
4/26		McNary	Laurence Dudley	
4/30	5/7	Umatilla	Scott Stenquist	acty
5/9	5/11	Deer Flat	Jim Messer	
5/15	5/18	SE Idaho Refuge Complex	/S/ CHARLES S. PECK	
	5/30	Minidoka CAMAS	John Hill	
	6-21-84	Grays Lake	Lane Barney	
6/22	6/27	Bean Lake	Gary Dauter	
7/6	7/11	Fully Lake	Gary Wilson	
7-16-84	7/18	Shillwater	Moé LeBeau	Interesting guys Hi Vern
8/20	9/10/84	Millerton	George East	
10/13/84	10/5/84	Shedden - West Mt.	M. R. Kirschke	
11/7/84	11/5/84	Klamath Basin	R. Fields/pl	
11/9/84	11/25/84	S.F. Bay	Sen Cabb	
12/8/84	12/7	Sacramento	Ed Collins	
1/24		DESERT		



IN	OUT	REFUGE	MANAGER	COMMENTS
	3/10/83	AK. Peninsula	Glenn Ellison	It was a year of changes - hopefully <del>the</del> 1983 will show more stability. Fine job, guys. Been a pleasure living and working with ya this past year. Fine work and area, Glenn. Body for another deer hunt? Looks like you had your share of controversy & headaches. Excellent photo selection.
3/10/83	3/10/83	Becharof	John Taylor	
APR 17 1983	3/18/83	Izembek	John Davis	
3/30/83	3/31/83	Alutian Islands Unit	Fred Zillema	
4/5/83	4/12/83	Kodiak NWR	John Stibb	Excellent report
4/15/83		Alaska Maritime Haven	John L. Mont	Good Report, Glenn!
4/21/83	4/21/83	Kenai NWR	R. L. Kelly	Five Report
5/2/83	5/3/83	Yukon Delta	Bruce Reising	Good report, Glen!
5/5/83	5-6-83	Arctic NWR	Bruce Reising	
5/7/83	5/7/83	Yukon Flats NWR	Red Sheldon	The time is just from Rhumba but the scene is different. Red
5/19/83	5/19/83	Kanuti NWR	Erin W. McIntosh	
5/24/83	5/24/83	Koyukuk MNR	Ralph Leel	Interesting area, Glenn!
5/30/83	6/1/83	Nawitna	Charles Blair	Enjoyed it Glen
6/23/83	6/23/83	Innoko NWR	Royceen Andrews for Phil Feiger	
6/30/83	7/7/83	Selawik	Art Hall	Can John T. really take care of all this too! Regards
7/18/83	8/1/83	Togiak	Dave Fisher	Nice Report Glen
8/30	8/30	Tetlin	Dave Steens	Good report Glen
SEP 28 1983	11/1/83	H. Pacific NWR	R. Shallenbeger	
11/21/83	11/29/83	Jack Kincheloo	Lower Columbia River Refuge Complex	
12/8/83	12/29/83	St. Mary's	Willapa NWR	
1/30/84		Columbian White-tailed Deer	H. Hagedorn	
1/3	2/22	Ridgeman	Bruce Wiseman	
	2/24	Wm Finley		