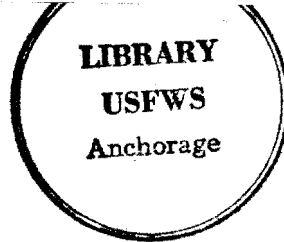


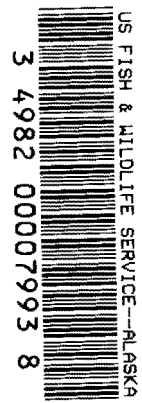
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A PATROL AND RECONNAISSANCE OF THE ARCTIC NATIONAL
WILDLIFE RANGE 6/9/65 TO 6/25/65.

Argy, Neil T. et. al.



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A PATROL AND RECONNAISSANCE
OF THE
ARCTIC NATIONAL WILDLIFE RANGE
6/9/65 TO 6/25/65 .

Submitted to
Wildlife Administrator
Kenai, Alaska

by

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July 9, 1965

INTRODUCTION

From June 9, 1965 to June 25, 1965, a patrol and reconnaissance was made of the Arctic National Wildlife Range. The following personnel participated: Neil T. Argy, U. S. Game Management Agent, Fairbanks, Alaska, Averill S. Thayer, Assistant Refuge Manager, Kenai, Alaska, and Ben H. Crabb, U. S. Game Management Agent, Fairbanks, Alaska. Dr. David R. Klein, Leader, Cooperative Wildlife Research Unit, University of Alaska, College, Alaska, and Vernon Harms, Botany Department, College of Renewable Resources, University of Alaska, also accompanied the field party for a period of time.

The main objectives of the patrol were:

- (1) Check active mineral exploration parties within the Range for compliance with the terms of their use permits.
- (2) Observe and record the locations of previous years' camps and the condition in which they were left.
- (3) Observe and record other human activity within the Range.
- (4) Observe and record exploration activity in areas adjacent to the ANWR.
- (5) Assess recreational potential and access sites.
- (6) Make wildlife observations.

EQUIPMENT & LOGISTICS

Two aircraft were used: a DeHavilland Beaver, N-715, equipped with wheel/skis, and a Piper PA-18, N-722, on large tires. Prior to the patrol, a C-46 belonging to Interior Airways was chartered and 1600 gallons of 80/87 fuel were flown to Peters Lake and Barter Island. The Arctic

Research Laboratory Camp at Peters Lake and the Federal Electric Corp. Distant Early Warning Radar Site at Barter Island were used for lodging while on the North Slope and the commercial facilities at Ft. Yukon were used when we moved to the south side. Approximately 20 cases of gas and 5 gallons of aircraft oil were cached at Peters Lake and 12 barrels of gas were left with Federal Electric at Barter Island for future use.

WEATHER

The weather pattern for the Arctic National Wildlife Range can be divided into three distinct zones: the North Slope below the 2500' contour, the mountainous areas above the 2500' contour, and the south side of the Range.

The North Slope below 2500' was almost constantly covered by dense fog from the ground up to 2000'. At times visibility raised to 5 miles but this was the exception and was usually accompanied by a westerly wind. Whenever the wind was from the east or northeast, ceiling and visibility usually dropped to 100' and 1 mile or less. Temperatures stayed from 28° to 35° and freezing rain was common.

In the mountainous areas above the 2500' contour, ceiling and visibility remained unlimited with some cirrostratus clouds in the afternoon and evening. At Peters Lake, fog formed for a few hours during the late evening over the ice covered lake but was dissipated by early morning. Winds did not exceed 12 to 15 knots.

On the south slope, temperatures ranged into the 70's. By noon each day, large, black, forbidding, cumulonimbus clouds formed with thunder and lightning accompanying them. Several lightning ground strikes were

observed but no fires resulted, probably due to precipitation. We found the best time for flying to be between 4:00 A.M. and 12 Noon as we could avoid the afternoon thunder showers and associated high winds and turbulence.

HUMAN ACTIVITY

Within the Arctic National Wildlife Range

General. No active mineral exploration parties or camps were located during the periods within the ANWR.

Trails made by bulldozers and other "off-the-road" equipment were evident adjacent to the shoreline throughout the northern boundary of the Range. The majority of the campsites used by oil exploration companies in past years were examined from the air and were found to be fairly well cleaned up. In some cases, old barrels and gas cans were found.

A tent ring and hearth was located on the Sadlerochit River near the mouth of Camp 263 Creek and other camp sites were found along the upper Hulahula River. These are no doubt spring sheep hunting camps of the Kaktovik Eskimos and show signs of recent use. A sled trail was followed for 30 miles up the Jago River but was lost due to thawing snow.

Peters & Schrader Lakes. The Office of Naval Research, Arctic Research Laboratory Camp at Peters Lake consists of four wood buildings used as cookhouse, laboratory, bunkhouse, and generator shed, and two Jamesway type quonset huts. With the exception of the Jamesway huts, the buildings are in good repair and neatly maintained. There was an abundance of garbage and empty barrels near the camp and at a dump 500 yards up the hill behind the camp. Because of frozen ground, garbage pits are not dug but empty cans and barrels could be punctured, weighted, and disposed of in

the deeper parts of the lake.

Evidence of old camps and fuel caches exists on the south side of the flat between Peters and Schrader Lakes. A recent cache of case gas and aircraft oil is in evidence and the markings denote "Shell Oil Co." The other empty cans and barrels probably predate the establishment of the refuge and should be disposed of.

A cabin and barrel cache on the southwest side of Schrader is believed to belong to Interior Airways of Fairbanks. While it was not examined from the ground, it appears in a fairly orderly condition.

Demarcation Bay. A steel building approximately 70' x 20' is located on the northeast corner of Demarcation Bay and has a gravel road leading from it to the beach, 1/4 mile north, where evidence of aircraft landing exists. Ownership was not determined.

An LST is grounded in the southeast side of the bay. Ownership of the vessel was not determined but we were told that it went ashore last summer when the tug towing it developed engine trouble.

Beaufort Lagoon. The abandoned Distant Early Warning Site at Beaufort Lagoon was not visited as dense fog was setting in the day we were able to fly in that area. The landing strip appears in excellent condition as do the buildings. Although the ground was snow covered, empty barrels and other junk could be seen in the area.

Barter Island. The DEW site at Barter Island was visited for four days. The site appears maintained in as neat as possible condition, but their disposal methods of fuel barrels should be changed. Apparently empty barrels are left on the ice north of the camp and allowed to "go to sea"

when the ice moves offshore during the summer. Barrels are scattered thickly along the beach from Barter to Demarcation Bay and are especially thick in the mouth of the Jago River. The coast from the Canning mouth to Barter was not flown due to fog.

Off the Arctic National Wildlife Range.

Canning River. The Geophysical Services Incorporated Camp located on the west bank of the Canning River near Latitude 69° 42' North was observed from the air. Many empty barrels, cans, and miscellaneous garbage were obvious as were deep bulldozer trails leading off in numerous directions. The letters "G S I" were dozed out of the tundra with a "Cat-blade" and were estimated to be 300 to 400 feet in length. An airstrip had been bladed out in the middle of the Canning River causing it to change course somewhat.

Sagwon. This Interior Airways Camp is located on the Sagavanirktok River near the mouth of the Ivishak River. A 2500' airstrip has been bladed down on the bank of the Sagavanirktok River and several buildings have been erected for workshop, bunkhouse, and cookshack.

The camps of several exploration companies were located about 1/2 mile east of the Sagwon site. Numerous oil drums and garbage were obvious around all the campsites and tractor trails, deeply imbedded in the tundra, radiated from the campsites in all directions. In talking with personnel at Sagwon, it appeared that seismic activity was slowing down with the advent of spring as most of the exploration had been accomplished during the winter months. Modwell type equipment is used for transportation of drilling equipment. C-46 and C-82 aircraft are used for freight hauling

from Fairbanks to Sagwon and to frozen lakes on the North Slope. Two Beavers and a Norseman are stationed at Sagwon for resupply and personnel hauling as are several helicopters.

Other Areas. On a flight from the Canning River to the Anaktuvik River, we were never out of sight of tractor trails deeply imbedded in the tundra. These trails appear very deep and water was apparent draining the tundra areas via these tracks.

At various intervals along these trails, oil drums, gas cans, and other garbage was apparent.

PATROL ACTIVITIES

The period June 9 to June 13 was spent at Peters Lake. While at Peters Lake approximately 6 miles of Carnivore Creek and portions of the east and west sides of Peters and Schrader Lakes were walked. An old camp near the outlet of Peters Lake was observed and photographed at this time. Aerial surveys of the Canning, Sadlerochit, Hulahula Rivers and their drainages were made as weather permitted.

On the east side of the Canning River, within the ANWR, no vehicle tracks were noted. On the west side, out of the Range, there were tracks in all directions, many having been bladed until they resembled a ditch more than a trail.

The area of the Sadlerochit springs was flown several times. The springs have a good flow and do not appear to be hot. The stream from the springs flows about 2 miles then disappears in a field of overflow ice.

By June 13 the overflow moat was rapidly forming on Peters Lake. Because of this it was decided to move to Barter Island.

We arrived at the Barter Island DEW site and checked in June 14. From 6/14 to 6/17 aerial surveys were made along the coast from Camden Bay to Demarcation Point. As shown on the enclosed map, trips were made up the Jago and Aichilik Rivers. While at the island, short walks were made to identify birds and become acquainted at the village.

With a blue sky overhead and good weather dominating all conversation on the island, we departed Barter on June 18. We flew to Bettles, checking several British Petroleum Company camps on Carter Creek, the west end of the Ikiapuk Valley and the Canning as well as the Interior Airways' Sagwon camp on the Sagavanirktok River. From the Canning to the Sagavanirktok, we were never out of sight of tractor trails, piles of fuel drums and other debris. From June 20 to our departure on the 25th, we worked out of Fort Yukon and Arctic Village.

The Sheenjek, East Fork of the Chandalar, upper reaches of the Hulahula, Coleen, Firth, Old Crow and Kongakut Rivers and their drainages were surveyed while working from Fort Yukon. Many bars suitable for landing aircraft exist along the Coleen River. These bars can easily be extended by smoothing water courses between smooth areas.

The attached map delineates the area that was flown during the patrol. Due to the small size of the map some of the shorter overlapping trips have been left off.

RECREATION

The ANWR, because of its' large size, contains an immeasurable recreational potential of a wilderness nature. The terrain is sufficiently varied to provide for a very leisurely and comfortable wilderness vacation

or for outings as strenuous as the participants wish to make them. The wilderness of the Range is its' dominating feature, even more than its size or its wildlife populations. When beyond the earshot of rushing waters silence prevails. There is no periodic rumble of aircraft so common in other parts of Alaska. In the Firth River valley, the Coleen River Valley, the Sheenjek and others, the mark of man is totally absent. The wildlife is tame; the bear do not flee pell mell across the tundra at the sound of an aircraft engine and a white wolf stood quite still for a close aerial photograph. While refueling the airplane on the upper Sheenjek River and again at Joe Creek a small herd of caribou approached the aircraft and observed the process.

The ANWR can be divided into three general recreational areas:

- (1) The southern slope and mountains.
- (2) The Arctic Ocean seacoast.
- (3) The North Slope between the mountains and the seacoast.

Of the three areas the southern slope and the mid portion of the mountains should receive the Bureaus' first attention relative to recreational development and investigations for these reasons:

- (1) The weather is better. It has a longer summer season and is not subject to the persistent north slope fog. Firewood is present and sportfishing is good.
- (2) It is closer to large populations centers and tourist routes. The cost of going to the northern slopes is prohibitive for many tourists.
- (3) Campers and hikers can return by canoe to Ft. Yukon where

commercial transportation is available.

The approximate cost for persons travelling in pairs in commercial aircraft from Ft. Yukon to the following points is:

Upper Sheenjek River	\$55.00 each
Upper Firth River	\$70.00 each
Joe Creek	\$90.00 each
Upper Coleen River	\$60.00 each
Chandalar River &	
Old Woman Creek	\$55.00 each

Landing areas for Super Cubs on large wheels exist throughout the Range, however landing areas for aircraft of the Cessna 180 or Beaver size would be a definite aid to public access. As a short airstrip currently exists at Joe Creek this is a logical first place to improve a public access landing area.

The improvement of landing areas on other rivers such as the Jago, Chandalar, Sheenjek, Coleen and Kongakut can be simply accomplished with hand tools as it will require only the filling of old waterways connecting smooth areas that are not long enough for the above mentioned aircraft.

A very excellent and scenic hiking route from Joe Creek into the Manche and Firth Rivers and into the upper Coleen River exists.

Another excellent hiking route exists from the Joe Creek into the Kongakut and up the Kongakut into the Sheenjek. There are several good routes between the Sheenjek and the Chandalar Rivers.

Other work relative to recreational development should include gathering detailed information on sport fishing, camping, hiking routes

and the use of canoes and craft such as Folboats for return to Ft. Yukon. Canoeing data can be obtained at small cost to the Bureau by transporting volunteers to the upper Coleen and Sheenjek Rivers where they can proceed down these rivers to Ft. Yukon in a Bureau owned Folboat. Qualified persons are available for this purpose from the staff of the University of Alaska.

Little information on the recreational potential of the northern slope and the Arctic Ocean coast was obtained on this trip. Much of the North Slope was still snow covered and the Arctic Ocean was still frozen. A landing was made on Tapkaurak Spit near Oruktalik Entrance. Examination of the beach revealed no shell or other invertebrate remains whatsoever. Driftwood is found along the beach but abandoned oil drums outnumber the drift logs 1000 to one.

WILDLIFE

Migratory Birds

Waterfowl The first duck sighting was made on a small lake near the outlet of Peters Lake and consisted of three Pintails; two males and one female.

Old Squaws, common and white-winged Scoters, Eiders and Buffleheads were observed at the mouth of the Jago and Sadlerochit Rivers and in the lakes of the Old Crow Flats. Many Eiders were observed at Siku Entrance. These birds apparently congregate at these entrances where there is a prominent seaward flow of fresh water.

Many birds were seen in the Old Crow Flats with the majority being in Canada. Buffleheads and Scoters were the only species identified.

Lesser Scaup were seen on the lakes bordering the east fork of the Chandalar River north of Arctic Village.

Brant were observed around the mouths of the Hulahula and Jago Rivers and at Egaksrak Lagoon. The first sighting of Brant was made west of Barter Island when 35 birds were seen. Approximately 400 to 450 were observed between the mouth of the Hulahula River and Demarcation Bay.

On June 25, eight Canada Geese were seen flying over the Chandalar River about ten miles above Arctic Village.

Swans were seen in several locations along the coast. The first pair were sighted at Pingokiraluk Lagoon and two other pairs in the vicinity of Arey Island. One nesting pair was observed inland several miles between Beaufort Lagoon and Demarcation Bay.

Shorebirds & Gulls. Shorebirds were seen at Peters and Schrader Lakes, Barter Island and several of the river bar landing sites. Unidentified gulls were in abundance at Barter Island. Shorebird sightings are listed on the attached Bird List.

Other Birds. Golden Eagles were observed almost daily, both in and out of the Range. Both rock and willow ptarmigan were seen on the North Slope.

Fur Animals & Rodents.

One pair of ground squirrels believed to be Citellus paryii were constant visitors at Peters Lake. No other small mammals were observed on the trip. One white wolf was seen along an unnamed creek which drains into the east fork of the Chandalar River.

Big Game.

Caribou. Caribou, while not counted in large herds, were abundant throughout the Range. The largest single herd sighted contained about 3,000 animals and was located east of the Sadlerochit River near the mouth of the Kekityk River. Caribou herds on the North Slope were made up of cows and calves while the herds on the south slope contained both bulls and cows. It would appear that the peak of calving occurs between June 10 - 15. 8,000 to 10,000 animals were observed in total during the period.

Some Caribou were observed along the shore near Demarcation Bay and there was heavy sign around the Bay particularly where Putugook Creek drains into it.

There were no "bloody rump" sightings which would have indicated aborting cows and brucellosis infection.

Moose. Moose sign was present along the Carnivore Creek for several miles above Peters Lake. On June 10 a bull, 2 cows and one calf were sighted in the Ikiakpaurah valley near Shublik Springs. Close aerial surveillance indicates that this is not a true hot springs. One bull moose was sighted on June 13 near the Sadlerochit Springs.

Sheep. Dall sheep were seen grazing on the mountain across Peters Lake from the ARL camp site. Many sightings of sheep were made during the period we were in the Range. No new lambs were observed.

Bear. Bear sightings were few, however, a "blonde" grizzly was sighted on the west side of the Canning River opposite Nanook Creek and a "brown" grizzly with 3 cubs was seen in the Tynek valley on June 11.

BIRD LIST

Red-throated Loon	<i>Gavia stellata</i>
Whistling Swan	<i>Olor columbianus</i>
Canada Goose	<i>Branta canadensis</i>
Black Brant	<i>Branta nigricans</i>
Pintail	<i>Anas acuta</i>
Lesser Scaup	<i>Aythya affinis</i>
Bufflehead	<i>Bucephala albeola</i>
Old Squaw	<i>Clangula hyemalis</i>
Eider	<i>Somatenis ??</i>
White-winged Scoter	<i>Melanitta deglandi</i>
Common Scoter	<i>Oidemia nigra</i>
Golden Eagle	<i>Aquila chrysaetos</i>
Willow Ptarmigan	<i>Lagopus lagopus</i>
Rock Ptarmigan	<i>Lagopus mutus</i>
Pectorial Sandpiper	<i>Erolia melanotos</i>
Rufous-necked Sandpiper	<i>Erolia ruficollis</i>
Golden Plover	<i>Pluvialis dominica</i>
Semi-Palmated Sandpiper	<i>Ereunetes pusillus</i>
Northern Phalarope	<i>Lobipes lolatus</i>
Parasitic Jaeger	<i>Stercorarius parasiticus</i>
Say's Phoebe	<i>Sayornis saya</i>
Common Raven	<i>Corvus corax</i>
Water Pipit	<i>Anthus spinoletta</i>
Common Redpole	<i>Aegnthus flammea</i>
Lapland Longspur	<i>Calcarius lapponicus</i>
Snow Bunting	<i>Plectrophenax nivalis</i>

SUMMARY & RECOMMENDATIONS

The most significant and lasting impression left with those involved in this patrol was the pristine beauty of the ANWR. Flying along the Canning River one was struck with the relatively untouched, unmarred scenery on the east bank of the river within the Range and the piles of empty barrels, cans, debris and other garbage on the west bank off the Range, the results of uncontrolled mineral exploration. Cat trails which turn into water-filled ditches stretch over the horizon in all directions and will scar the tundra for many years. Weasel and other rough country vehicle tracks that were made in the early 1940's can still be plainly seen for miles in the Umiat area.

The most impressive area was the Firth River. I quote from Thayer's notes: "The view presented by the Firth River valley is the finest display of natural beauty I have witnessed: A swift, transparent, faintly green colored stream flowing on a bed of totally white pebbles meanders through a verdant valley timbered with uncongested stands of straight, symmetrical spruce trees and clumps of aspen. Moose feed in the beaver ponds, groups of caribou lie about on the tundra, waterfowl dimple the lakes, and a very blonde grizzly bear digging ground squirrels brings white rocks to the surface. The whitened remains of dead spruce trees and shed moose antlers dot the meadows and on the hillsides even stands of straight spruce are interspersed with vertical spires of rock. Golden eagles soar over an immaculate and peaceful scene. There is not one vehicle trail, pile of rusting fuel cans or leaking diesel oil drums in sight, any one of which would destroy the entire scene."

Based on our limited experience this summer, the following items are suggested for future operations within the ANWR and might be considered in future planning:

- (1) Maintain close surveillance of exploration activities within the Range to assure compliance with terms of use permits and also that effort done without the coverage of a permit.
- (2) Avoid the establishment of a large, fixed base camp. Ft. Yukon, Barter Island, Arctic Village, and the ARL camp at Peters Lake are adequate.

June 15 is the latest that one should plan on being able to use the ice on Peters Lake for wheel or ski landings. From all reports, and ice thickness this year supports this, landings can be made up to the 20th; some years to the 25th, but open water around the perimeter prevents getting ashore. By the 15th, most of Peters and Schrader Lakes were covered by overflow water except for the area near the ARL Camp.

- (3) A super Cub on large tires with long range tanks would suffice for most patrol effort with a float ship available for periods during the summer.
- (4) Have either the oil companies that have used the Range in the past clean up the old camp sites and fuel dumps or use Bureau personnel.

- (5) Gather basic information regarding sportfishing, hiking and camping conditions.
- (6) Concentrate efforts on #4 along with gathering data on float and canoeing trips on the south side of the Range especially the Chandalar, Sheenjek and Coleen Rivers as these are the most accessible for recreational endeavors.
- (7) Prepare simple wheel landing areas on the following rivers: Coleen, Sheenjek, Jago, Kongakut and improve the existing one on Joe Creek. This can be accomplished fairly easily with hand tools by filling a few old waterways that separate existing sand bars.



1. Distant Early Warning Site - Barter Island. Note: Low lying fog in background and Kaktovik Village at left center of photo.



2. An LST converted to a barge "frozen in" at Demarcation Bay.



3. 70' x 20' steel building near northeast corner of Demarcation Bay
with barrel dump and road leading to aircraft landing area near beach.



4. The East Fork of the Chandalar River showing "glaceiring" of river.



5. "Cat" trails in tundra between Canning and Kavik Rivers. Note: Deep cut trail made during spring and lighter winter trails.



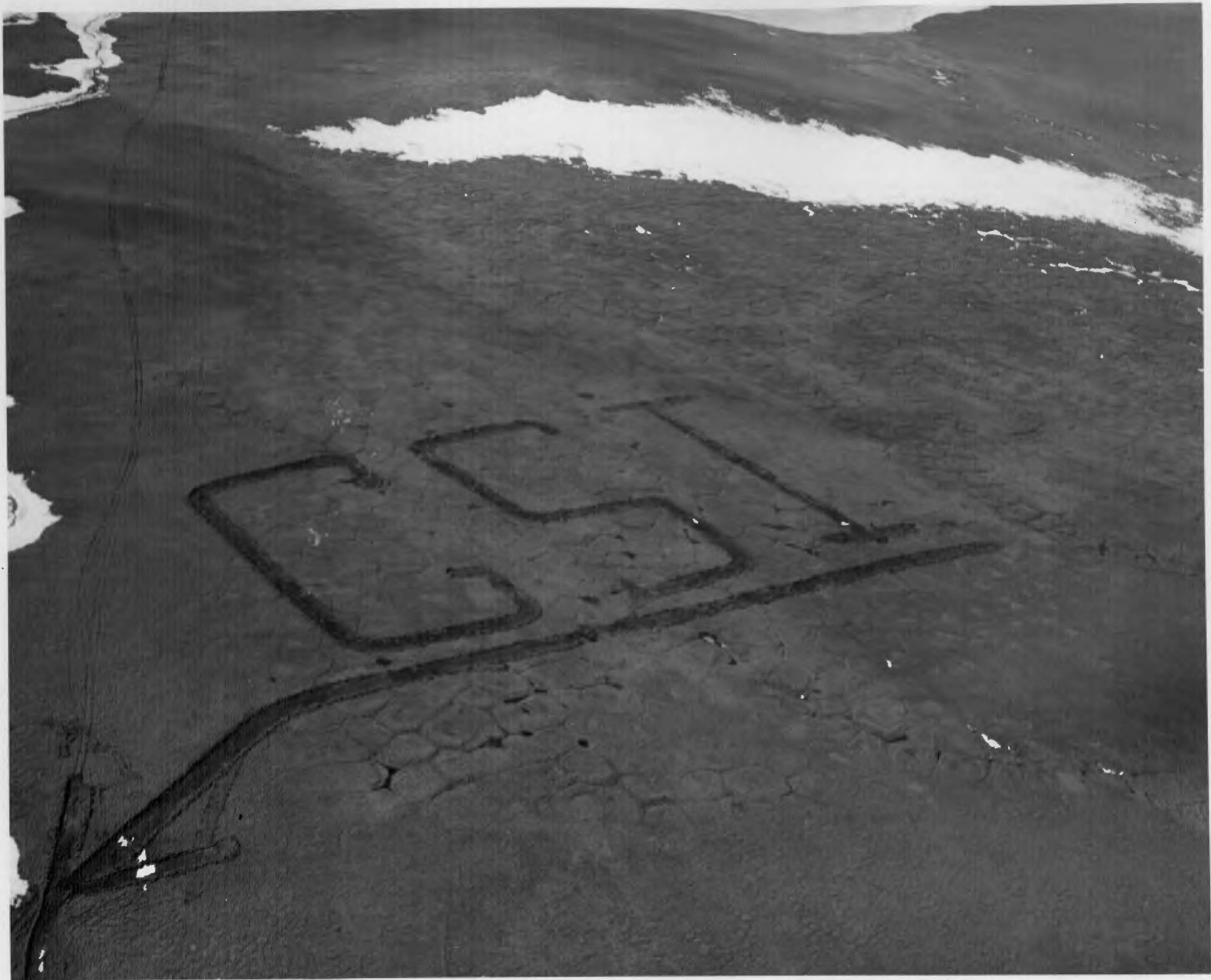
6. Arctic Research Laboratory, Office of Naval Research, Camp at Peters Lake.



7. Debris left on flat between Peters and Schrader Lakes by mineral exploration companies.



8. Geophysical Services Inc. campsite on west bank of Canning River. Letters are 3-400 feet in length and 20-30 feet wide.



9. Beach, Arctic Ocean, near Humphrey Point. Driftwood is deposited by westward flowing currents from the McKensie River.



10. Caribou on river glacier on upper East Fork of Chandalar River.
Mostly bulls.



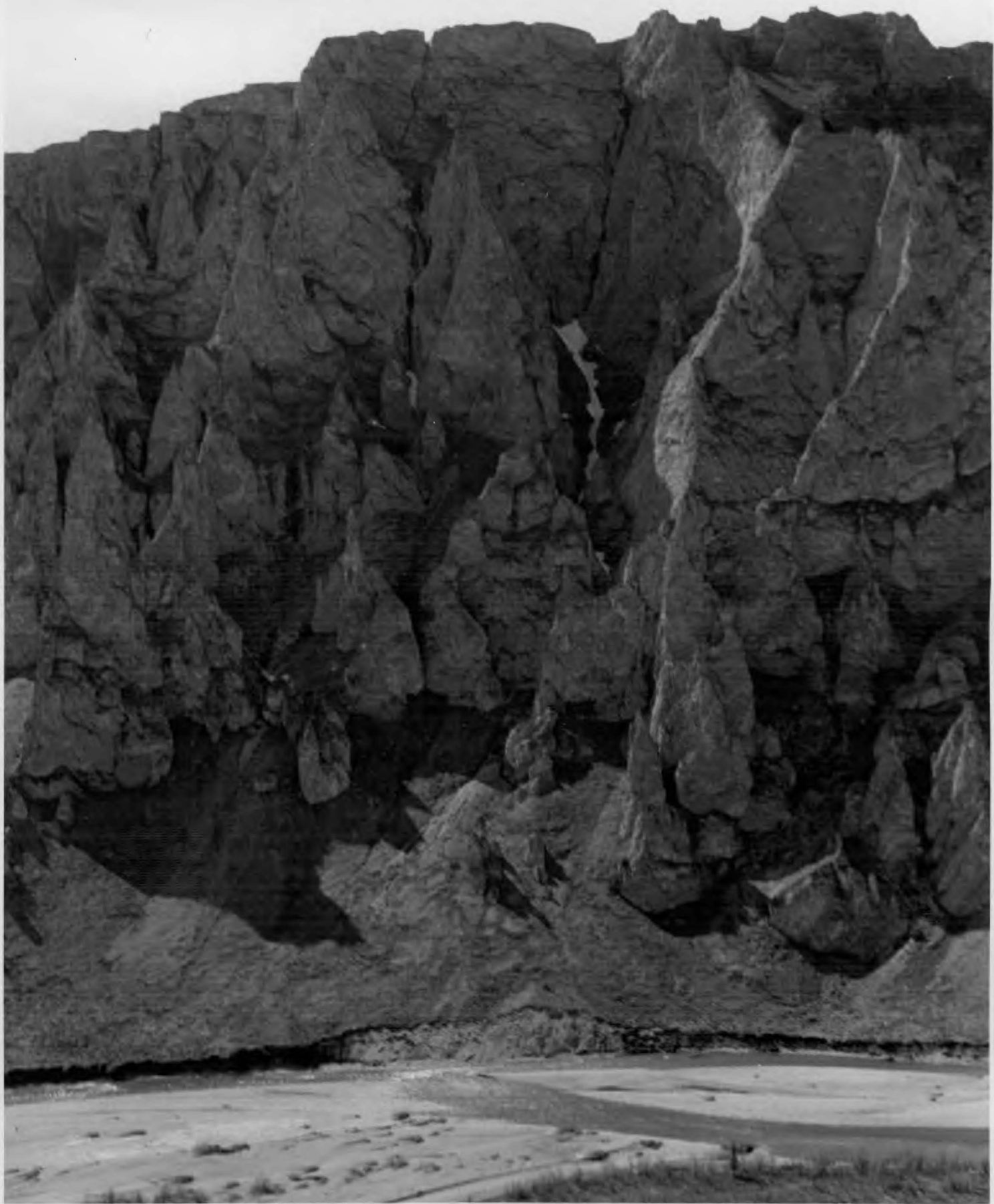
11. Joe Creek - Note caribou grazing inbackground.



12. Carnivore Creek- southern drainage into Peters Lake.



13. Moncha Creek - near eastern border of Arctic National Wildlife Range.



14. Upper tributary of Shoenjek River.



15. Sheanjek River

