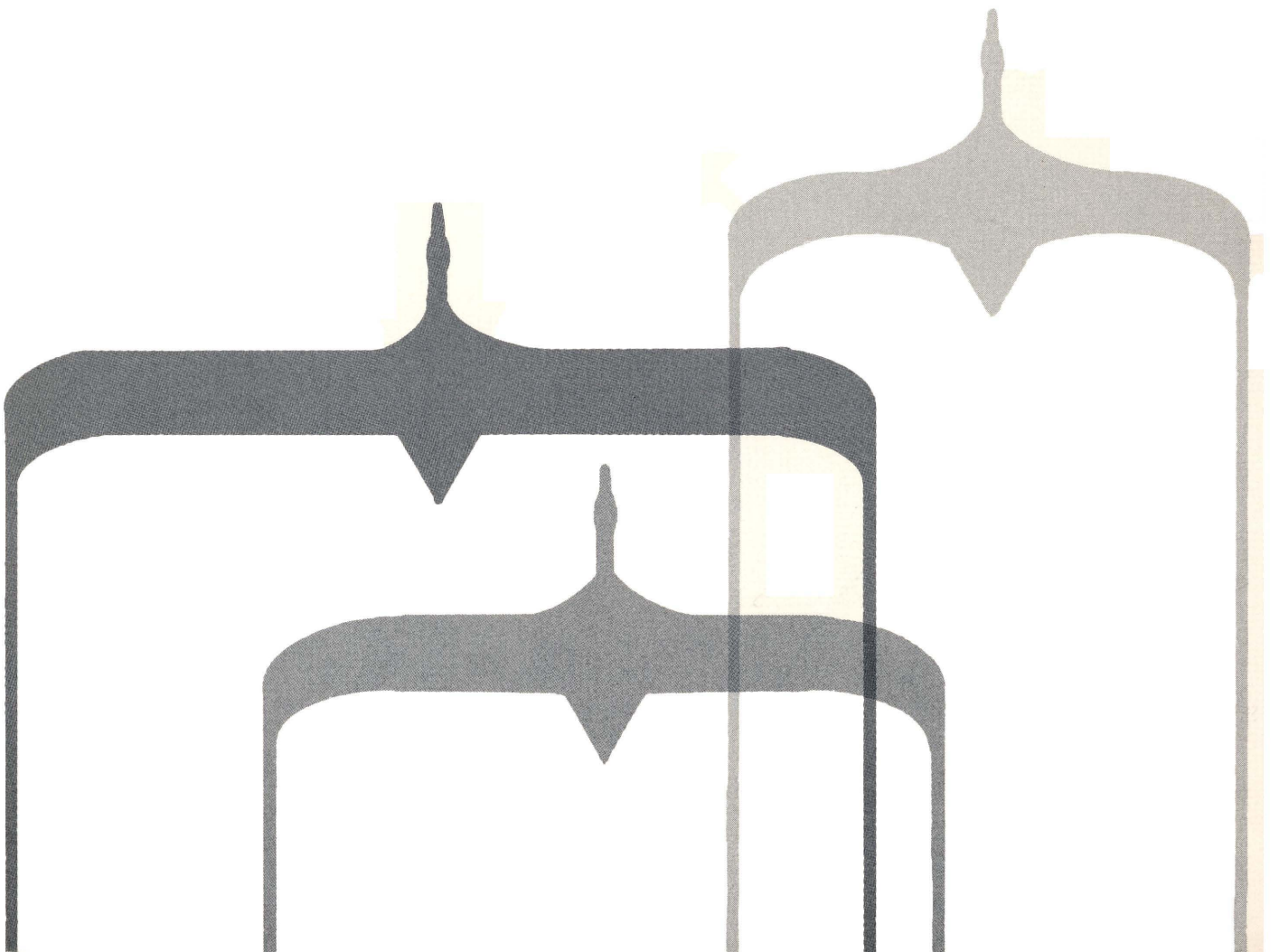
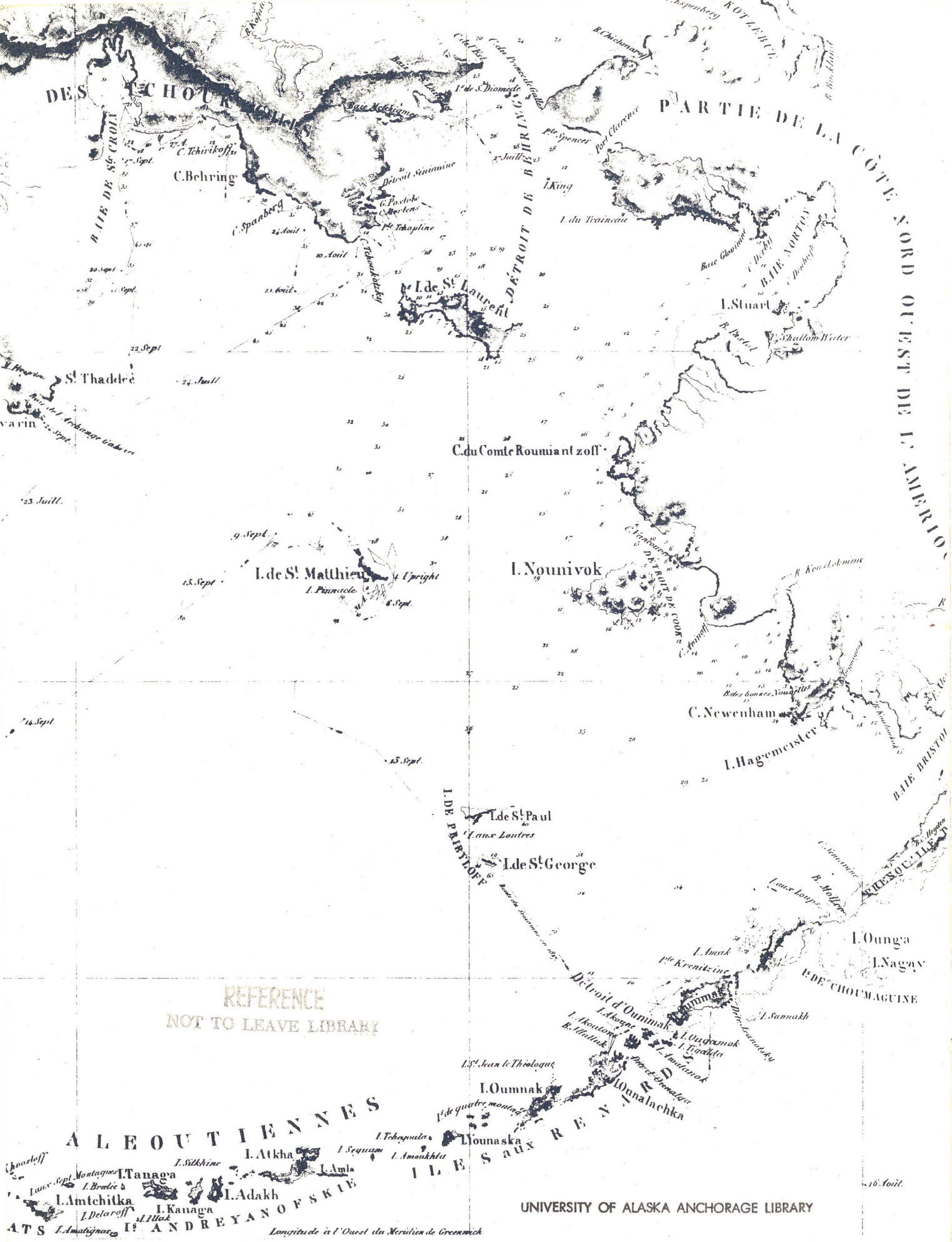


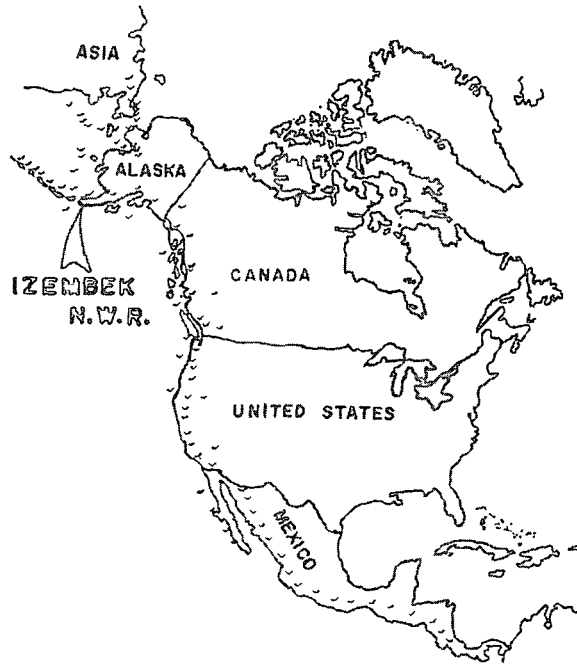
alaska

IZEMBek

national wildlife range







izembek national wildlife range

alaska

MASTER PLAN

The National Wildlife Refuge System reflects concern of people for irreplaceable native species. They want assurance this part of human environment will be continued for the pleasure and inspiration of present and future generations. Izembek contributes to that broad purpose. This plan is intended to promote public understanding of refuge programs and to describe developments and operations needed to fulfill potentials of this important area. Approaches to achievement may vary as new techniques and ideas are developed, but the fundamental goal of benefit to people will remain unchanged.

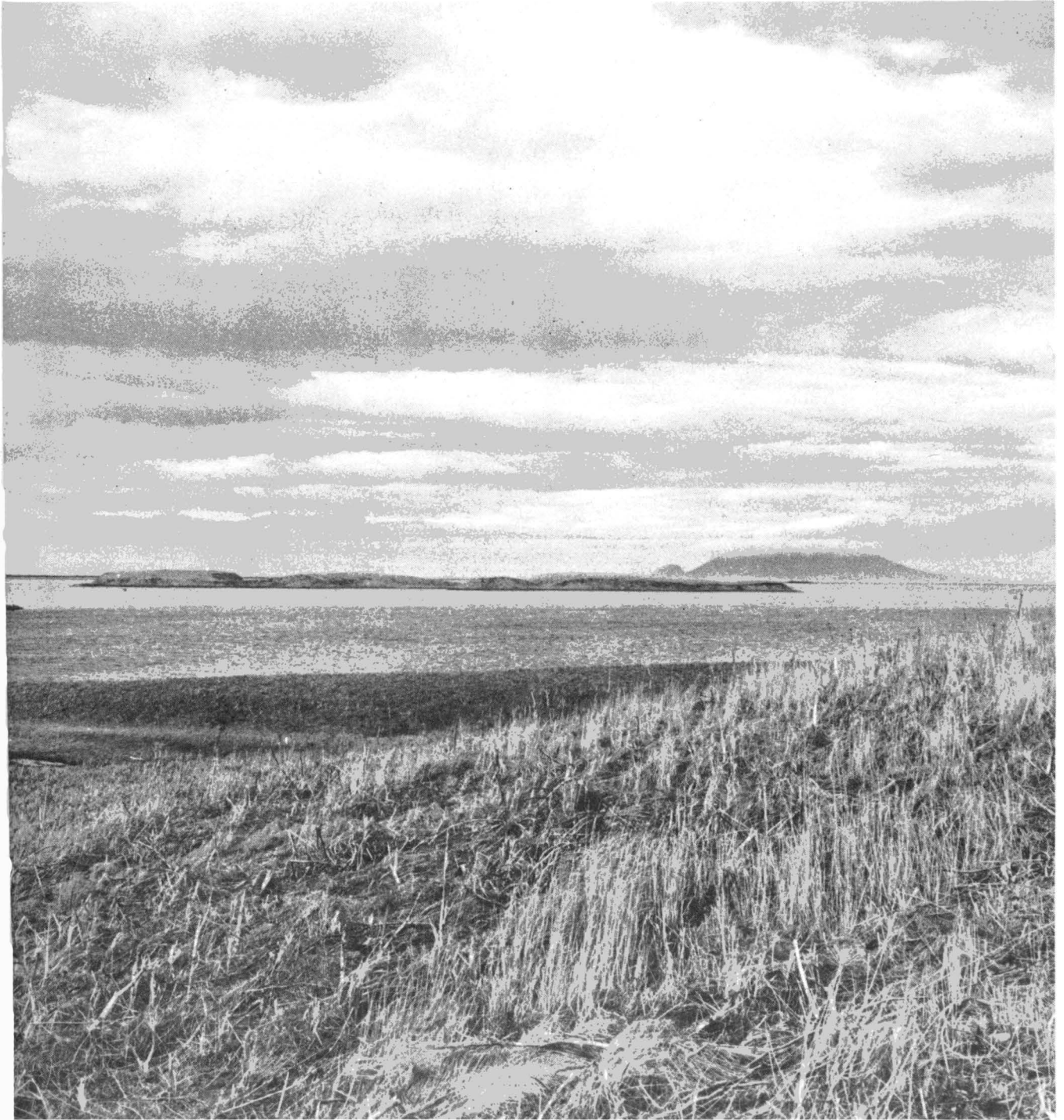
Preface

Izembek National Wildlife Range became a reality in 1960 with publication of Public Land Order 2216.

The vast eelgrass beds of Izembek Bay and bordering upland tundra provide valuable waterfowl feeding area. Tidal lagoons of this range support the continent's entire black brant population for two to three months each year and are essential to survival of this population. It is also a principal migration unit for "cackling" and "Taverner" Canada geese, and sustains a number of other species during fall and early winter.

Upland areas are a favored range for the Alaska brown bear and caribou. Spectacular in scenic features, the Range provides unusual opportunity for observing wildlife. Furbearers, upland game birds, small game animals, game fishes, and four species of Pacific salmon in commercially significant numbers inhabit the Range.

The Range includes almost one-half million acres situated on the western end of the Alaska Peninsula so that it surrounds and controls drainages into Izembek Lagoon, Moffet Cove, Kinzarof Lagoon, and the three lagoons at the northern end of Morzhovoi Bay. Land habitat is subarctic-alpine type of a fragile nature. Salt meadows adjoin lagoons where the ancient shoreline has been modified by marine deposits of fine particles. Heath mantles the rolling moraine that comprises much of the Range leading back to dissected volcanoes, source of the glacial deposits. In lower reaches of numerous mountain streams where a meandering valley has been cut, grasses and sedges predominate. A line of brush forms a ring at the base of the mountains. Above this ring, etched as black against white in winter and dark green against a light green in summer, vegetation is sparse, giving way to rocks and climate of higher elevations. Several glaciers are situated on the Range. Because naturalness is a sincere goal, physical development planned is held to the minimum required for safe and efficient conduct of Range responsibilities.



AMAK ISLAND IN THE DISTANCE

The Past

When the last great glacial advance locked an immense volume of water, area now in the Izembek National Wildlife Range lay shaping under ice. Low, rolling land covered with alpine vegetation stretched away to the north. Only one point of relief appeared. A volcano, now Amak Island, rose about 10 miles north of the ice edge. Men probably were not present, but they occupied the edge of the Bering land bridge far westward. These men were ancestors of the Aleut who came to this location following advance of the sea. They established communities on shoreline exposed by retreating ice. Izembek Lagoon did not then exist, so very oldest sites, then established on open coast, are now isolated from the sea by marine deposits that accumulated over several thousand years.

Historical records are silent about the lagoon, principal geographical and biological feature of the Range, until 1827 when Count Feodor Petrovich Lutke named it Izembek Lagoon in honor of Karl Izembek, surgeon aboard the Russian sloop "Moller." Cape Glazenap, western point of entrance, also was named by Lutke, presumably after two midshipmen in his party. Moffet Point at the north entrance was named for Midshipman Samuel Moffet, a fourth member of Lutke's party. Lutke applied the name Krenitzin to the cape at the northwest end of Alaska Peninsula, presumably after Peter Krenitzin who explored in this region in 1768.

SEALS





OLD FROSTY



FREIGHTER AT COLD BAY

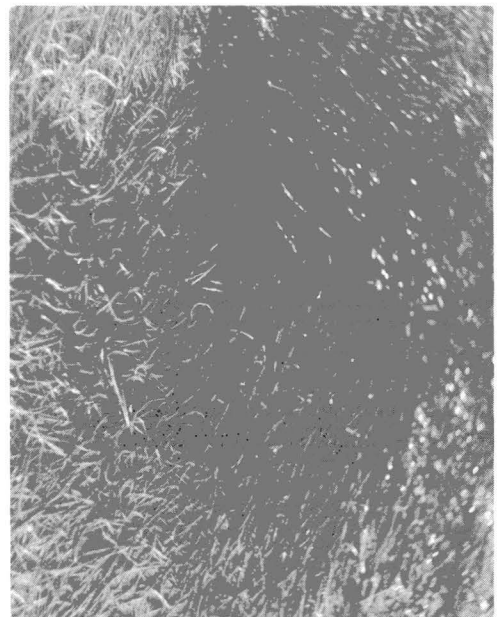
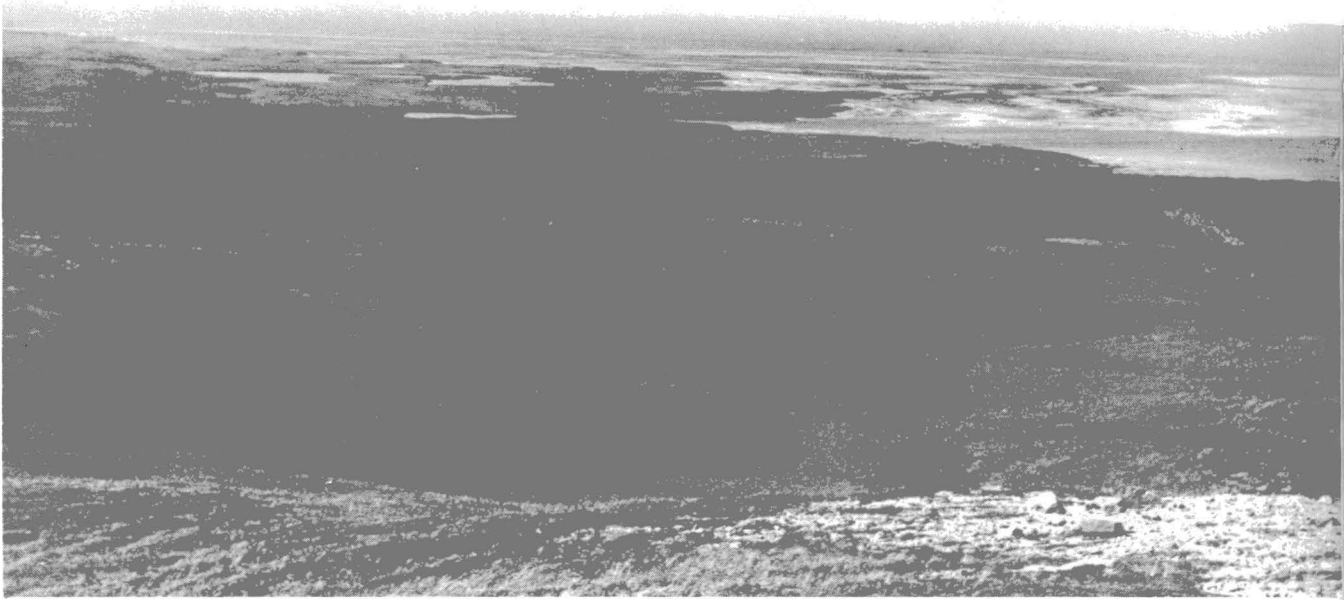


COLD BAY, ALASKA

The Present

Fate of the Aleuts, whose village sites dot the ancient and present shoreline of Izembek Range, is not known; no sites have been excavated. However, it seems probable that in the period of Russian consolidation during early nineteenth century, those Aleuts still inhabiting shores of Izembek Lagoon were obliged to move to larger settlements. One of these larger settlements is the more recent site of Morzhenskoe situated astride the creek flowing into Middle Lagoon, Morzhovoi Bay.

In more recent times a network of cabins and traplines spanned the Range. In most instances these were occupied in winter. In the summer fishing season, people moved to villages. World War II had profound effect on social and economic conditions. Though natives still hunt on the Range, there is no serious trapping for furbearers. Today, most of the area remains a wilderness, but instead of being a primitive village, the town of Cold Bay is dotted with modern buildings and a large airfield serves a bustling local and intercontinental air transport industry. The Submerged Land Act and the Alaska Statehood Act made tidelands the property of the State. As established, the Range includes tidelands as part of a complete ecological unit essential to wildlife needs.



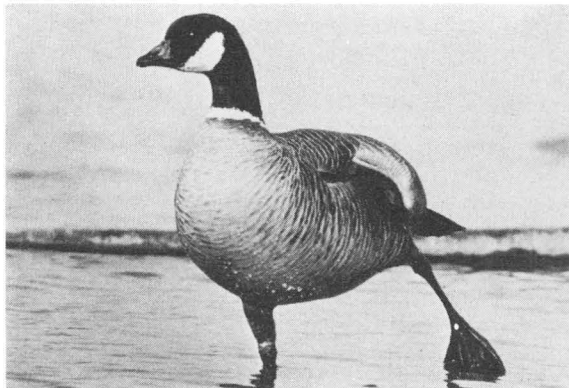
EELGRASS

Objectives

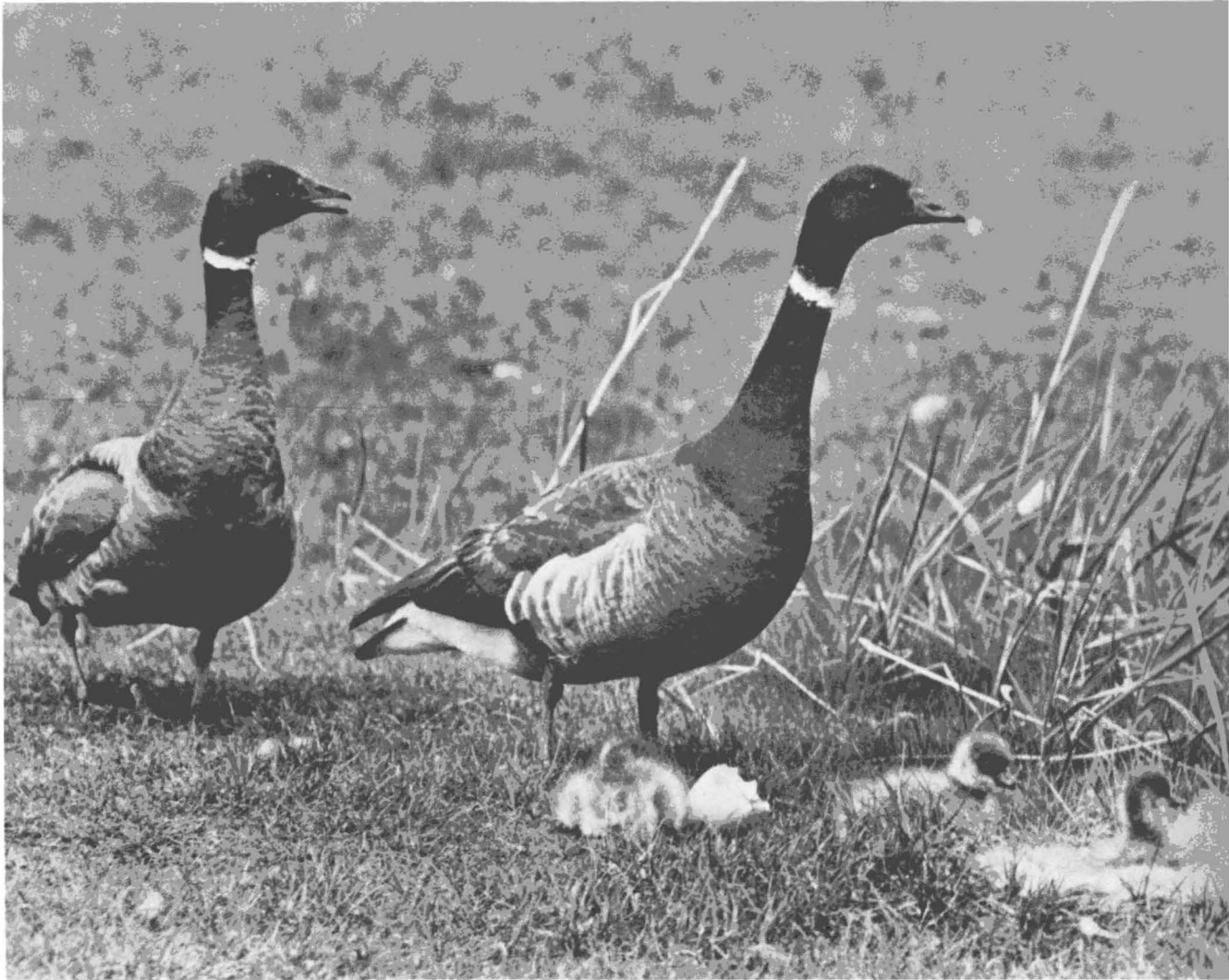
The most significant contribution of the Range lies in the food produced in the world's largest eelgrass beds. Whether utilized directly as food by waterfowl; as a habitat for invertebrates in their turn used as food by waterfowl; or by enrichment of the Bering Sea in the form of dissolved organic matter that finds its way through the food chain to commercially valuable catches of sea foods, the international contribution of these eelgrass beds is substantial.

To fulfill a function in overall Bureau objectives and those of the Pacific Flyway, the Range is well situated. Lying between Arctic nesting grounds and southern wintering areas, the Range furnishes feeding and resting areas during the critical recovery period that must follow successful nesting and moulting. But unlike other northern waterfowl refuges the Range does not cease its contribution with onset of winter; nor is this objective its sole purpose. In order of priority other purposes are to:

Preserve rare and endangered species. Though not envisioned when the Range came into being, presence of the endangered race of Aleutian Canada geese recently has been established. These birds appear in fall, mixed with much larger numbers of Taverner's Canada geese. This prime objective of the Range can be served best by maintaining present habitat and regulations. Studies to further determine requirements of this goose, its status and distribution will continue. This objective is closely related to others.



ALEUTIAN CANADA GOOSE



BLACK BRANT

Provide conditions favorable for waterfowl nesting. Preservation of marshy salt meadows adjacent to lagoons is necessary for satisfactory hatches. Though the Range was created for reasons other than duck production, nesting is significant and will be encouraged. Swans inhabit the Range year round and nest in salt meadows with ducks. Duck production habitat is equally suitable for maintenance of the swan population.

Provide opportunity for quality wildlife-oriented public enjoyment based on natural beauty, unique environment, and compatibility with wildlife management objectives. Because of its isolation and wilderness nature, the Range offers public use of a distinctive character. Cold Bay, a base for military activity and commercial airlines, is the administrative center for the Range. Surrounding lands and water are within the boundary and most local outdoor recreation is on the Range.

While hunting and fishing are favored sports, there is interest in other wildlife-oriented recreation. Opportunities for photography and sightseeing are outstanding. Against a peerless photographic backdrop, a fisherman or shutterbug may be surprised by an otter, a mink, perhaps a wolverine or wolf, and possibly a brown bear.

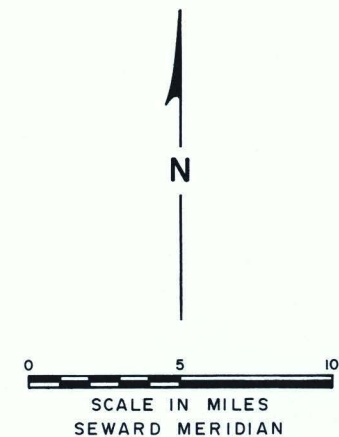
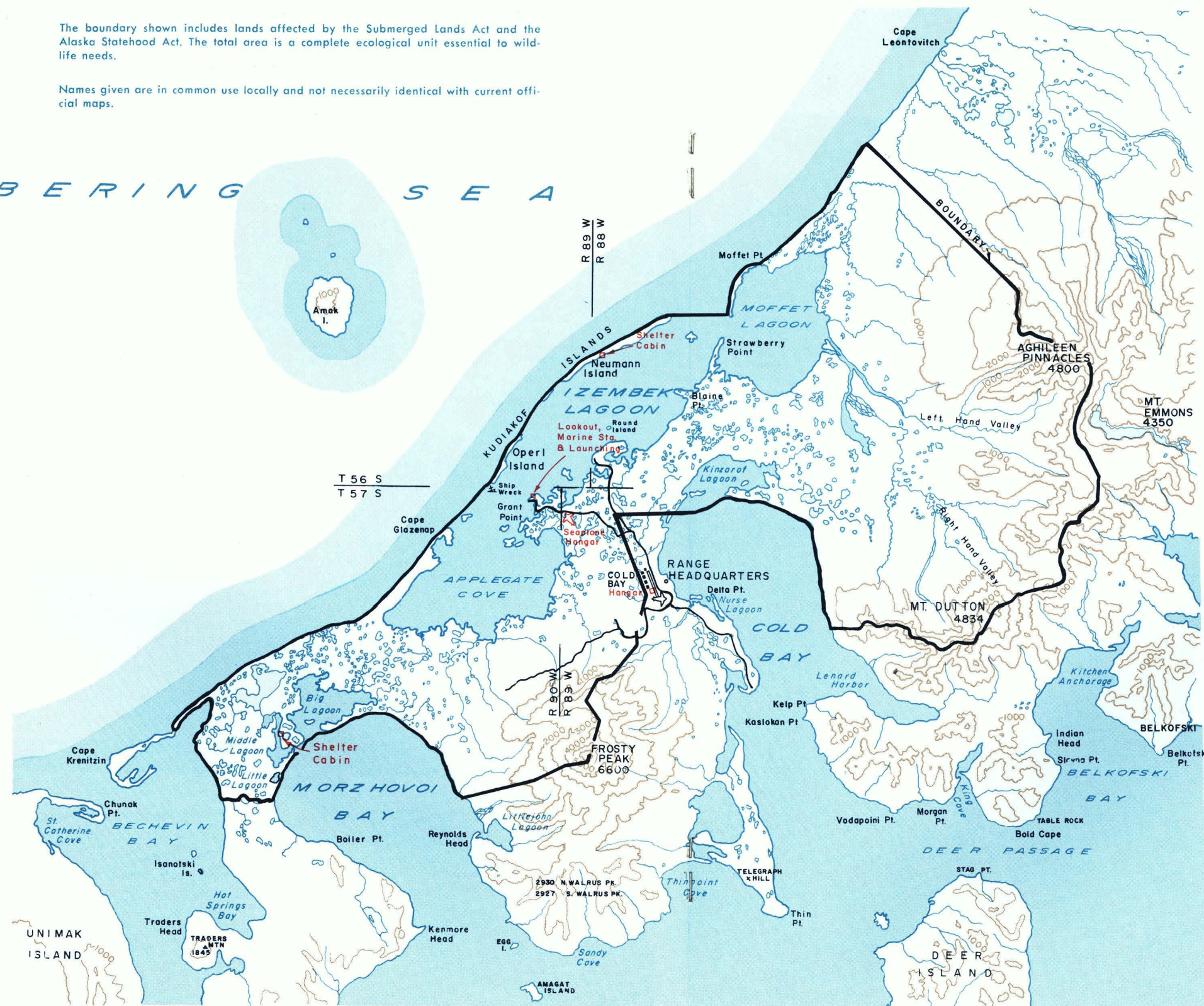
On the Bering Sea coast, also noted for its photographic splendor, one may gather net-encased glass balls used by Japanese and Soviet fishermen. Many are lost in their operations and eventually the sea casts them onto beaches. Berry picking also is a popular activity.



The boundary shown includes lands affected by the Submerged Lands Act and the Alaska Statehood Act. The total area is a complete ecological unit essential to wild-life needs.

Names given are in common use locally and not necessarily identical with current official maps.

B E R I N G S E A



PLAN

LEGEND

- EXISTING
- PROPOSED
- SALT WATER
- FRESH WATER



BROWN BEAR



BEAR HUNTER CAMP

Provide quality hunting and fishing opportunities in accord with the overall program. Caribou and Alaska brown bear, both wilderness animals, are present in huntable numbers. The latter, considered by many to be the acme of North American game, can be observed, photographed, or hunted in its native habitat on the Range. This animal makes trails, most frequently beside brawling mountain streams, offering opportunity for isolated fishing.

An adequate road network leads to several points from which successful waterfowl hunting is available. But for the hunter who must be alone, provision is also offered in the wilderness that lies beyond roads.

Hares, because of their low density, furnish little hunting, but ptarmigans provide fine upland hunting in Arctic heath bordered by alder and willow thicket.



Offer habitat enabling wide waterfowl distribution. In fall the Range has within its boundaries the entire Pacific Flyway population of black brant, numbering roughly a quarter of a million birds. Lesser Canada and emperor geese number around 100,000.

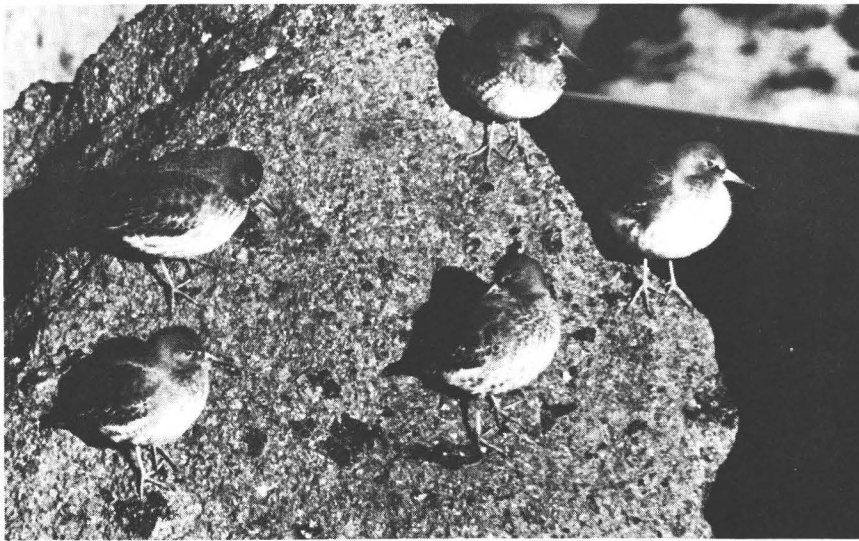
An estimated 300,000 ducks may be present in the fall. Most abundant ducks are the pintail and mallard. Other ducks include green-winged teal, greater scaup, bufflehead, common goldeneye, widgeon, gadwall, old squaw, Steller's eider, common eider, and king eider. Small numbers of black brant and emperor geese summer on the Range and possibly some nest. The endangered Aleutian race of the Canada goose appears in the fall.



BAR-TAILED GODWIT

TUFTED PUFFIN

ALEUTIAN SANDPIPER



Provide conditions encouraging distribution of other migratory birds. On mud flats of Izembek Lagoon large numbers of shorebirds such as sandpipers and turnstones still appear. This population benefits from maintenance of habitat for migrating waterfowl. Shorebirds feed on exposed bars of lagoons in very large numbers, and some, notably the rock sandpiper, nest on uplands in common with ptarmigan and songbirds. This group thrives best in natural habitat.



SEA OTTER AND YOUNG



WILLOW PTARMIGAN

Maintain habitat for unique species. Inhabiting the Range is a population of Alaska brown bears, a wilderness animal of highest quality. Barren ground caribou, also a wilderness animal, inhabits the Range in significant numbers.

Mink, weasels, wolverines, land otters, sea otters, wolves, and red foxes inhabit the Range in significant numbers. Some of these are wilderness animals. Maintenance of their normal population levels serves refuge management objectives. Wolverines and wolves are regarded as trophy quality animals, thus furnishing hunting recreation of high quality.

Two species of ptarmigan (willow and rock) inhabit the Range in variable numbers. The Range is home for limited numbers of Arctic hares.



CARIBOU

Preserve natural beauty. Plans for altering physical aspects of the Range must recognize vegetative cover is fragile subarctic-alpine type. Removal of this cover exposes light soils to severe wind and water erosion. This area has the lowest recorded rate of solar radiation received in the North American continent, and repair of erosion is difficult.

Accomplishment of Range objectives is best served in wilderness condition. No extensive development affecting natural and spectacular beauty is planned. Refinement of programs and minor improvement of administrative and recreational facilities comprise main changes from present conditions. Therefore, the Range is being studied to determine if parts should be recommended for inclusion in the National Wilderness Preservation System.

Assure economic use will not damage other values.

Substantial economic opportunities are not foreseeable. Fur trapping may be continued—more for sport than profit—and guiding brings some revenue. Importance of spawning streams to the fishing industry is substantial, and need for maintaining scenic attractions and ecological values for direct and indirect benefits is recognized. These are intrinsic values important for long-term tangible and aesthetic benefits, whether they are used extensively, enjoyed by few, or simply exist as part of our natural environmental legacy.



WILDLIFE OBSERVATION

Provide conservation-education interpretive facilities promoting understanding of wildlife as part of environment. Low density human populations, severe climate, and abundance of primitive type outdoor recreation preclude need for extensive outdoor facilities. Overlooks will have simple shelters equipped with literature and maps. Wildlife-oriented trails may be developed in connection with local school and conservation programs. While adults and children alike are familiar with their rich wildlife inheritance, they can be helped to a better understanding of their local environment.

Marine research activity has outgrown limited facilities at Cold Bay headquarters. A well equipped station should be developed at Izembek Lagoon. Technical and non-technical studies conducted thus far give promise of accomplishment possible under larger programs.

Development

Water Management. Protection of drainages and salt meadows is vital to Range functions. Since altering present water conditions could seriously affect wildlife habitat and in turn recreation and commercial fish values, no water developments are proposed.

Land Use Management. Except for erosion control and landscaping at headquarters, no land management is foreseeable. It is intended the land shall remain in as natural condition as possible considering limited public use facilities and human activities. Because the terrain is fragile, soil disturbance must be held to a minimum.

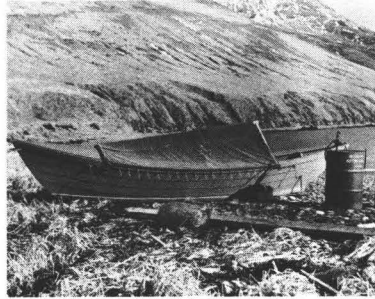
Service Facilities. Headquarters at Cold Bay, Alaska consists mainly of a combination office-storage building, oil house, and three residences. Operations would be facilitated with construction of two airplane hangers, one bunkhouse, line shelters and observation shelters. Hangars will be located adjacent to the commercial airfield at Cold Bay for wheel planes and at Rescue Lake for float planes. Construction must be capable of withstanding high winds. Line shelters are a necessity for safety, comfort, and efficiency.

Most recreation of the general area is on the Range, predominantly within a few miles of town, or headquarters. Access is by air, sea, foot trails, or limited roads. Izembek Lagoon offers outstanding viewing of waterfowl. Quality of this experience can be enhanced by construction of two small simple lookout type shelters. These will be rustic and unobtrusive. Their sole purpose would be to provide shelter from rough weather while observing wildlife and scenery and photographing wildlife subjects.

Conservation education programs will be welded with local school activities. Alaskans are proud of their wildlife heritage and are knowledgeable on the subject. It is appropriate Range subjects be studied in class.

Developments proposed are relatively minor. Range objectives and operations aim at maintaining natural conditions that have preserved great wildlife values of the area.

Estimated Cost



The wildlife resource is no exception in need for funds. It can no longer be accepted as a free inheritance. Development proposed is limited to comparatively small areas and will have little effect on wilderness character of the Range. Natural values are fully recognized in planned development and operations. The present annual operating budget will grow as visitor use and research activities increase.

DEVELOPMENT

Buildings and Structures	\$164,000
Research Center	250,000
Road Rehabilitation	11,000
Recreation	5,000
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Sub-total	\$430,000
Planning	70,000
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Total	\$500,000

OPERATIONS

Habitat Management	\$ 18,000
Populations Management	20,000
Public Use Management	2,000
Planning	1,000
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Total	\$ 41,000





RED FOX

Benefits

People of Cold Bay are not dependent on the Range for economic support, but opportunity for enjoying wildlife in natural habitat is a priceless value to them. Island wilderness, with all its beauty, reaches almost to their backyards. Outsiders share these aesthetic experiences unusual in today's industrial society.

The Range provides salmon spawning habitat essential to the local fishing industry. It offers opportunity for quality sport hunting and fishing. But most important are non-measurable intangible values which properly protected will endure for man's benefit now and in the future. Perpetuation of native species in natural habitat contributes a measure of quality to human environment.



GEESE OVERHEAD

Summary

Izembek National Wildlife Range is a unique area having features quite different from most refuges. Goals fit the pattern of Bureau objectives and accomplishment is progressing. There is opportunity for greater service to the wildlife resource and in turn to mankind through continued research into various natural features of the area. Wildlife requirements are such that only high quality limited public use can be accommodated. Physical developments will have the main purposes of benefiting research, management and people. Acceptance of this guideline will assure perpetuation of the very important values of the Range for enjoyment by people today and in the future.

July 1969



WOLVERINE TRACKS

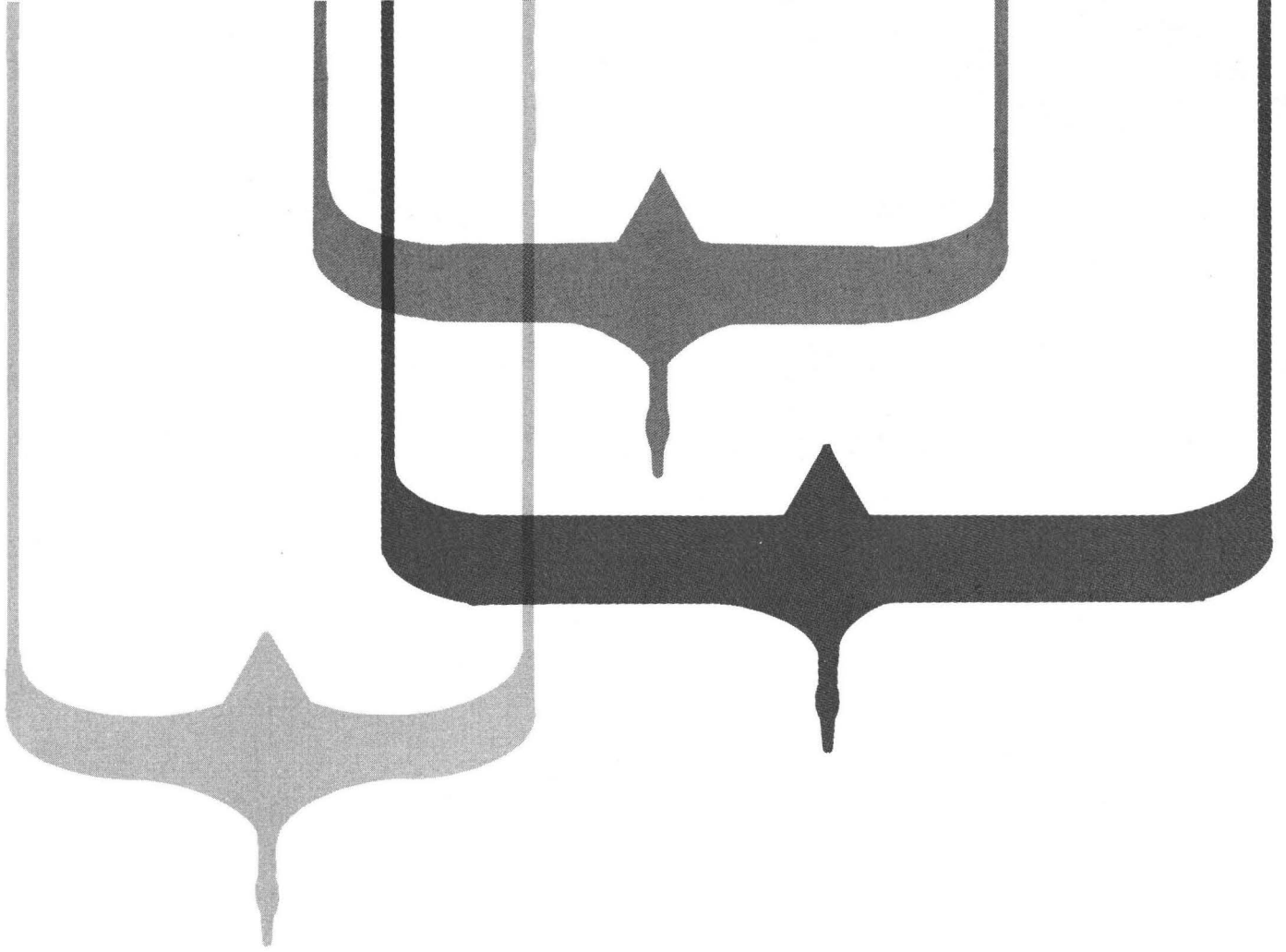


As the Nation's principal conservation agency, the Department of the Interior has basic responsibilities for water, fish, wildlife, mineral, land, park, and recreational resources. Indian and Territorial affairs are other major concerns of America's "Department of Natural Resources."

The Department works to assure the wisest choice in managing all our resources so each will make its full contribution to a better United States—now and in the future.



This administrative plan proposed and prepared by the Bureau of Sport Fisheries and Wildlife's Western Region, Portland, Oregon, supports and furthers the high objectives of the Department of the interior for the wise development, management, and use of the lands, waters, and other resources of the National Wildlife Refuge System.



UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE