

MLCM 93/05188

Lighthouses

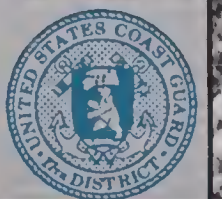
And other aids to navigation in Alaskan History

FT MEADE
GenColl

Cape Hinchinbrook
Light Station
1950s

U.S. Department
of Transportation

United States
Coast Guard



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Photo courtesy Alaska State Library

90-352576

Secretary of State William Seward -- the man who bought Alaska



Preface

Lighthouses are often thought of as buildings of mystique and romantic charm, isolated at the foot of storm-tossed waves beating upon the rocky shore. In Alaska, isolation and lighthouses seem synonymous. None of the light stations in Alaska can be reached by car. Most are only easily accessible by helicopter.

"Lighthouses And other aids to navigation in Alaskan History" was originally published in 1974 by the state of Alaska as, "Aids to Navigation in Alaska History". This publication provides an overview of the evolution of one mission of the Coast Guard in Alaska.

Due to the frequent requests for information concerning Coast Guard lighthouses in Alaska, the public affairs office of the Seventeenth Coast Guard District was granted permission to update and reprint this book by the Office of Statewide Cultural Programs, Alaska Division of Parks, the agency which originally prepared the text. Special thanks go to Chief Public Affairs Specialist Edward L. Moreth and Public Affairs Specialist First Class Christopher E. Haley for their diligent work to revise this book. Unless noted, all photographs contained in this book were provided by the U.S. Coast Guard. Anyone with comments concerning this publication, should contact the Coast Guard public affairs office by writing :

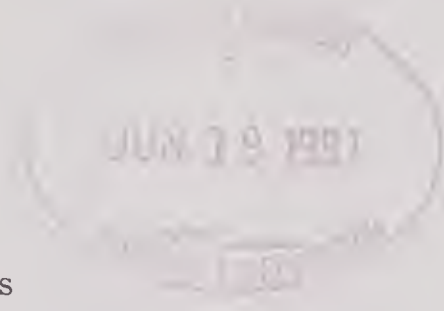
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The Seventeenth District is dedicating the publishing of "Lighthouses and other aids to navigation in Alaskan History" to the Coast Guard Bicentennial -- August 4, 1990. We hope this publication is enjoyable and increases your historical perspective of the Coast Guard and the U.S. Lighthouse Service and their contributions to the state of Alaska and its citizens.

Raymond F. Massey, Jr.
Lieutenant, U.S. Coast Guard
Public Affairs Officer

Lighthouses And other aids to navigation in Alaska History

Originally prepared by:
Office of Statewide
Cultural Programs
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**Cape Decision Lighthouse
1988**

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KEY TO FOOTNOTE CODE

AG	Annual Report of the Governor of Alaska	
AR	Annual Report of the Lighthouse Board or Lighthouse Bureau	
AW	The Alaska Weekly	
ARSC	Annual Report of the Secretary of Commerce	
CDA	Cordova Daily Alaskan	
TCDT or CDT	The Cordova Daily Times	
LL	List of Lights, Buoys, etc.	
USCG	United States Coast Guard	
USCP	United States Coast Pilot	
USCS	United States Coast Survey, 1869	

INTRODUCTION

How, when and why the United States government penetrated the Alaska frontier is a subject about which few historians are in agreement. Ernest Gruening and Clarence Andrews, for example, tend to condemn Washington of willful negligence, of preferring private enterprise to develop the land before making a substantial investment. On the opposite pole is another, more recent interpretation, held by Morgan Sherwood and Ted Hinckley, who argue that Washington's penetration of frontier Alaska occurred along general patterns defined by other American frontier experiences; that there was no conscious design to ignore Alaska's needs, that in fact the historical role of the federal government in Alaska is a remarkable story of success. Whether the historical debate will ever be settled is a difficult question. If there is a lesson to be learned from the experiences of historians in other nations, particularly England, where the historical problem of social penetration and integration has commanded much attention, a great deal more specialized research is needed before the gleams of a reliable answer will appear.

The first part of this study was written in light of that need. It describes briefly the activities of one federal institution in Alaska during the years 1867 to 1940, that is, since the purchase of Alaska to World War II. Until World War II proved the necessity of airfields and the Alaska-Canada Highway, the "liquid highway" was the primary mode of transportation between the continental United States and Alaska. The services of the Board of Lighthouses (later the Bureau of Lighthouses) were important factors in Alaska's economic development. For it was the board's responsibility to ensure the safety of marine traffic in Alaska with buoys, daymarks, post lights, light stations and other navigational aids. When and how the Light House Board, or its successor, lessened the danger to ships making their way along Alaska's coasts is an index to the degree to which the federal government, in general, penetrated the Alaska frontier. That it is only an index needs restatement, for some federal agencies are conceivably more active than others.

The second part of this study presents historical summaries, architectural descriptions, and photographs of 16 light stations (lighthouses with resident keepers) in Alaska which may be eligible for entry on The National Register of Historic Places. Each of these light stations, all of which are now unmanned, are significant in Alaska history for a variety of reasons. Many were constructed to meet the requirements of Alaska's rising commerce shortly after the Klondike Gold Rush of 1897/98; they are therefore physical testaments of an important event in Alaska history. Several of the more recent light stations are physical evidences of that time when the bulk of Alaska's commerce shifted from Southeast to Southcentral Alaska. And, of course, some light stations are monuments to famous ship disasters. Of all aids to navigation, light stations were the most expensive to construct and maintain. The fact that they were established and continued to function until the 1960s reflects the importance with which they were held by commercial interests and the federal government.

TABLE 1

Number of Aids to Navigation in Alaska, 1890-1940

	1890	1895	1900	1905	1910
Lights	0	1	1	15	37
Fog Signals	0	0	0	8	9
Buoys	27	57	57	68	84
Daymarks	15	26	25	30	30
	1915	1920	1925	1930	1940
Lights	112	196	260	350*	457**
Fog Signals	10	11	13	14	15
Buoys	167	224	303	309	316
Daymarks	39	94	140	178	181
Radio Beacons	0	0	0	3	9

*Figure includes 311 minor lights, 13 light stations, and 26 lighted buoys.

**Figure includes 387 minor lights, 14 light stations, and 56 lighted buoys.

Part I

**HISTORICAL
SUMMARY**

I

n the early years of the United States, aids to navigation were established and maintained by colonial and state governments. Responsibility was placed on the national level with the organization of the Treasury Department in the late 1790s.

Due to the increasing work, the Fifth Auditor was made Superintendent of the Lighthouse Establishment in 1820. Custom officials performed field supervisory duties, such as inspecting lighthouse sites, appointing persons to tend lights, etc.

Another major administrative reorganization was made in 1852 with the creation of the Lighthouse Board within the Treasury Department. Twelve Lighthouse Districts were formed, each with a District Engineer and District Inspector.

By decentralizing the administration of the board to the local level, the Act of 1852 essentially stimulated the growth of a system of aids to navigation throughout the United States. The board soon established a reputation as an effective and aggressive organization. Thus, by the 1850s, numerous aids to navigation were located along the coasts of California, Oregon and Washington Territory, all of which fell under American rule in the late 1840s.



When, on July 27, 1868, the "customs, commerce and navigation" laws of the United States were applied to Alaska, the board faced the formidable prospect of establishing a system of aids to navigation in the new territory with a coastline greater in distance than all of the contiguous states. Perhaps anticipating the task, Alaska was later included in the Thirteenth Lighthouse District with Oregon and Washington Territory.

Not long after the purchase of Alaska, in January 1869, the Senate determined to review the safety of Pacific Northwest coasts, requiring the president "to detail an officer to select from the public lands such permanent points upon the coast of Oregon, Washington Territory, and Alaska, as in his judgment may be necessary for lighthouse purposes, in view of the future commercial necessity of the Pacific coasts, and to reserve the same for exclusive use of the United States." (U.S. Senate 1869: 1)

One month later, President Andrew Johnson submitted a report prepared by assistant George Davidson, of the Coast Survey. Davidson was in

Gas can from lighthouse.

**A worker services a light in
Southeast Alaska.**

charge of a Coast Survey expedition to Alaska in 1867 when Secretary of State William Seward required information about the new acquisition for the consideration of Congress.

The Lighthouse Board had then approached the Coast Survey to include someone in the expedition who would locate possible lighthouse sites in Alaska. The product of this survey was the report that the president forwarded to the Senate in February 1869.

In his highly readable and detailed report, Davidson recommended that two lighthouses be placed in Sitka Sound, similar to those near San Francisco; one at Cape Edgecumbe and Biorka Island; one at Long Island and Near Island, near Kodiak; and two lighthouses near Dutch Harbor, Unalaska Island.

He also noted various locations for buoys and unlighted beacons. (U.S. Senate 1869: 5-12) It is a testament to his observations that nearly all were later sites of navigational aids. However, none was ever a lighthouse.

Despite its interest in Pacific Northwest commerce, Congress took no action to reserve lands in Alaska for lighthouse purposes. Perhaps the problems of reconstruction distracted Congress from Alaskan affairs, in general. Certainly, congressmen depreciated the acquisition of Alaska, considering the land more a liability than an asset. Demands for lighthouses in other areas of the United States may have held priority. It is more probable that the volume of marine commerce in Alaska did not warrant navigational aids. Whatever the reasons, Davidson's recommendations for Alaska were shelved.

Yet, the Lighthouse Board did not ignore Alaska. Noting Davidson's comments on the Russians' navigational aids, the board apparently made an expedient decision: use whatever the Russians left behind. Red and blue buoys marked a submerged rock near Long Island, called "William's Bank", where the Russian-American Company's "Kodiak" sank in April 1860; but these tended to drift away during storms and probably were never maintained by Americans. (U.S. Senate 1869: 9) Apparently, the only lighted aid in Russian-America was at Sitka.

Displayed after an exchange of cannon fire between the approaching vessel and the governor's house, the light was located 110 feet above water in the cupola of the governor's house or "Baranof's Castle".





The "first" lighthouse in Alaska was located in the cupola atop Baranof's Castle. This photo was taken in 1889. The building burned in 1894.

When the light was established is unknown; historians cite 1804 and 1834 as possible years. It was a crude affair, consisting of seal or whale oil and wick in four copper cans, placed in front of a large reflector in a turret lantern. (USCS 1869: 119-20; U.S. Senate 1869: 6; Adamson 1955: 255; Gibbs 1955: 205).

When Alaska was purchased by the United States, the Sitka light was probably transferred to the jurisdiction of the Lighthouse Board. An agreement, negotiated by the customs official at Sitka, was concluded with the Army, whereby the latter maintained the light at the Board's expense. The keeper received 40 cents per day for the task. (Gibbs 1955: 205; Gruening 1968: 218)

When the Army departed Alaska in 1877, so did Acting Ordinance Sergeant George Golkell, the appointed keeper since 1867. (Holland 1972: 190; Deane 1938: 20). Nearly 20 years passed before the Lighthouse Board maintained another light at Sitka.

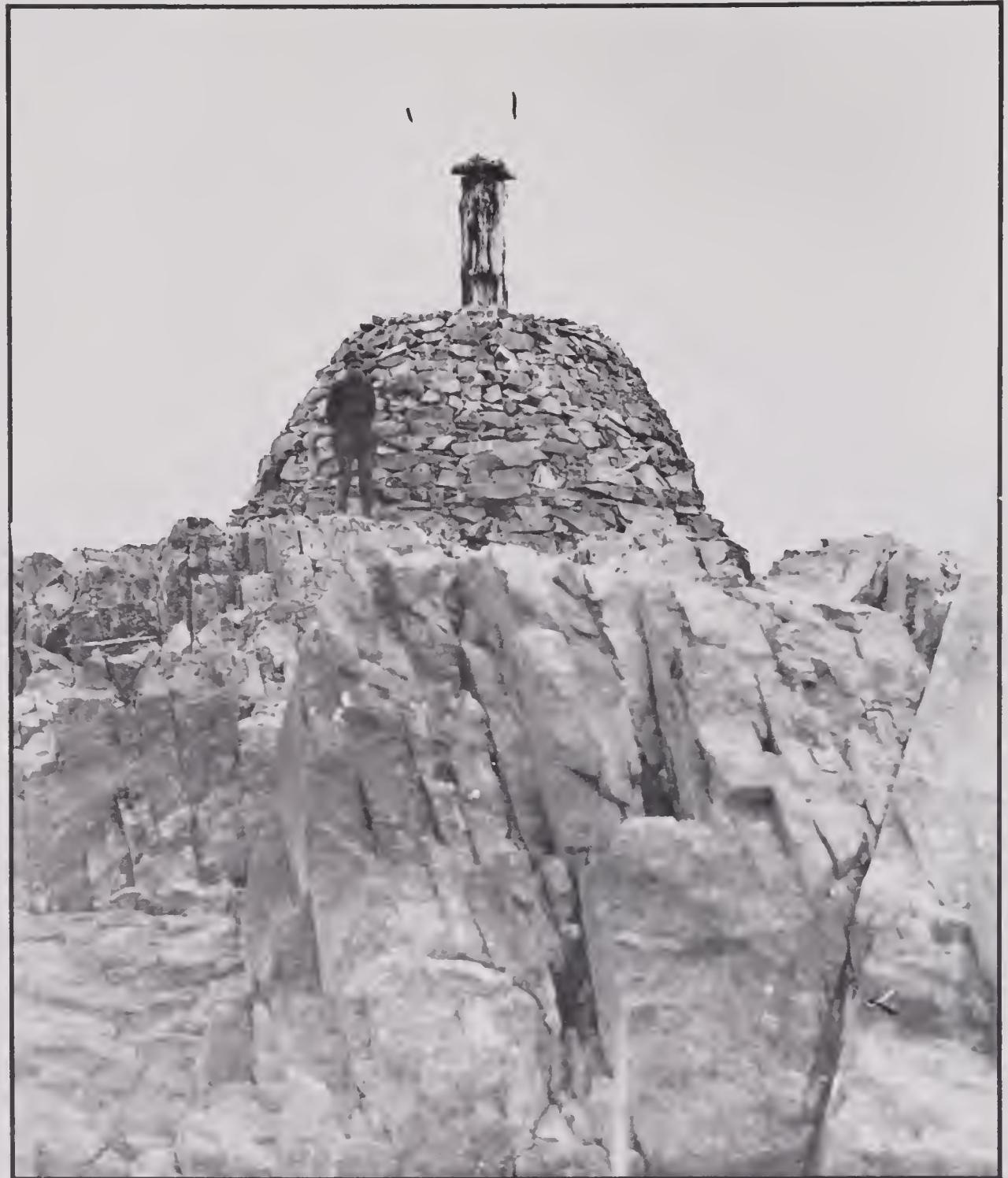
With the rise of gold mining, tourism, and salmon-canning industries in the late 1870s and early 1880s, marine commerce increased substantially in Southeast Alaska. Of course, so did ship disasters.

Politicians, chambers of commerce, newspaper editors, steamship companies, fishermen, and whalers throughout the Pacific Northwest soon appealed to the Lighthouse Board for aids to navigation. (Adamson 1955: 255) So great was the need that Pacific Steamship Company officials offered free transport of buoys, supporting their request by listing numerous marine hazards in Tongass Narrows and Wrangell Narrows, as well as the recent loss of company steamer Eureka in Peril Strait. (AR 1885: 10)

In 1884, Alaska obtained a district form of government, and the Lighthouse Board sent 14 iron buoys to Southeast Alaska.

Buoys at the lighthouse depot in Ketchikan, December 1, 1916.





A lighthouse service-man poses near Vitskari Rocks Beacon, one of the first federal aids in Alaska, on July 12, 1918.

All were placed by the U.S. Navy in the Inside Passage. Also, Naval Commander L.A. Bearslee ordered a beacon placed on Vitskari Island, near Sitka, where Davidson had once recommended a cannon for a fog-signal in addition to a light. (U.S. Senate 1869: 5-6; AR 1885: 10; Andrews 1953: 178; Gibbs 1955: 205). These were the first unlighted aids located in Alaska by the United States government.

Concentrating on the needs of Washington and Oregon, the officers of the Lighthouse Board seldom found time to place additional aids in Alaska. In fact, it was not until June 1895 that a lighted aid was established. No longer able to use the former Russian governor's house at Sitka, it having burned down in 1894, the Lighthouse Board placed a simple post light on Castle Hill. William Marrett was the appointed tender. (AR 1896: 170; AR 1889: 170; *The Sitka Alaskan* June 22, 1895: 3; Andrews 1953: 302) While this was the first light established by the federal government in Alaska, it was also the last until after the turn of the century.

With the passing of each year, additional buoys and unlighted beacons (log pyramids and iron spindles) were placed in Southeast Alaska. Between 1895 and 1900, however, the number of aids had not increased at all. In fact, the number of buoys in 1900 had not risen above the 1895 figure. For daymarks, the number had actually decreased by one.

This apparent inertia can be understood in various ways. In part, it reflects the Board's efforts to replace, upgrade, and repair buoys and daymarks, a time-consuming project since the only lighthouse tender in the Thirteenth District, the *Columbine*, operated from Oregon and entered Alaskan waters only during summer months. (AR 1889: 170; AR 1905: 178)

Also, the location of aids was probably reorganized frequently, according to needs, such as fluctuating steamer routes, new mining communities and canneries. This view is supported by the fact that the most

northerly buoy in 1898 was on Indian Rock, 20 miles south of Skagway, then booming as a direct result of the Klondike Gold Rush. (The Sitka Alaskan July 30, 1898: 2) More important, the board was financially ill-equipped to meet Alaska's demands. This is particularly true in regard to lights, which required frequent maintenance by a keeper. Since March 1890, for example, the board had annually requested funds to construct a light and fog-signal station on Mary Island, at the entrance to Revillagigedo Channel. In 1892, a customs house was established on the island and the board recommended that customs officials maintain a minor light at a nominal fee. (The Sitka Alaskan January 30, 1892: 1; U.S. House 1890: 1) However, Congress was not swayed by the entreaty. Not until the Klondike Gold Rush of 1897-98 catapulted Alaska into the international news did Congress seriously consider Alaskan needs, much less the requests of the Lighthouse Board.

A windfall in Alaska history, the Klondike Gold Rush stimulated development of Alaska in unparalleled ways. All sorts of social, economic and political activities accelerated. Prospectors demanded geological surveys, maps, and mining laws; homesteaders demanded land laws and public

surveys; politicians demanded home rule. And, of course, chambers of commerce, steamship companies, fishermen, all in some way dependent on safe water traffic, joined in the cry for lighthouses in Alaska.

Gov. John G. Brady of Alaska was especially vocal, not only in portraying the urgency in the situation, but also in grasping the obvious solutions: "Commerce has grown so rapidly and there are now so many millions of dollars invested in steamships plying in these waters that the time has come to separate Alaska into a lighthouse district. There is work enough to keep an inspector and tender busy. British Columbia is far surpassing us in this particular. Soon they will have completed four new lights at important points upon the inside passage. We should have as many now in operation between Tongass and Skagway." (AG 1898: 43)

How the Board responded to the events of 1897-98 is crucial. One historian suggests that the board was then lax in leadership, that a "hardening of the arteries had set in this once vigorous and aggressive organization." (Holland 1972: 191) Perhaps the judgment needs qualification. For years, the board had requested funds for the Mary Island Light Sta-



The lighthouse tender Fern prepares to launch a buoy.



Photo courtesy John Scott Douglas

Repairmen service a light.

tion and an Alaska lighthouse tender.

In its annual report of 1899, the board noted the numerous requests for lights in Alaska and urged that Alaska be made into a separate lighthouse district. Most important, the board requested \$300,000 for light stations in Alaska, naming eight sites in Southeast Alaska and three in Western Alaska. (AR 1899: 41; Holland 1971: 191) Such an unprecedented request would hardly come from a federal agency suffering from lax leadership. That light stations were, in fact, later established at the recommended sites testifies to the board's familiarity with Alaska's commercial needs and coastal geography.

On June 6, 1900, Congress appropriated \$100,000 for light stations in Alaska. (The Sitka Alaskan January 19, 1901: 1; AR 1905: 173) With this boon, the Lighthouse Board immediately dispatched the Thirteenth Lighthouse District inspector and engineer to survey the sites in Alaska. On their return, they confirmed pre-

vious recommendations and provided five additional sites where light stations should be established. In particular, they urged prompt construction of lighthouses in Southeast Alaska at Five Finger Islands and Sentinel Island, both located at strategic points in the Inside Passage.

The board concurred and ordered the preparation of detailed plans and specifications. With the remaining \$100,000 appropriated in 1900, construction of the two light stations began in July 1901. Both stations, the first in Alaska, were lighted on March 1, 1902. (AR 1900: 27-28; AR 1901: 38; U.S. Senate 1901: 1-3)

As the effects of the Klondike Gold Rush and other gold rushes reverberated throughout Alaska, Congress proved sufficiently amenable to the board's requests, appropriating more than \$500,000 during the years 1901 to 1903 for lighthouse construction. (AR 1902: 241; AR 1905: 173; AR October 15, 1903: 12) By the end of 1903, when the Lighthouse Board was transferred from the Treasury Department to the Department of Commerce and Labor, five light stations were in operation in Alaska. One year later,

A can buoy is hoisted aboard the lighthouse tender Cedar.



the number had more than doubled, although most constructed in 1904 were classified as minor (lens-lantern) light stations. All, except for Cape Sarichef and Scotch Cap Light Stations, were located in Southeast Alaska.

This surge in lighthouse construction was made at the expense of other aids. Of the 15 lighted aids in 1905, 11 were lighthouses. Insignificant increases were recorded for buoys and daymarks during the years 1900 to 1905. (AR 1905: 12) As much of the steamer routes were beset by fog and winter darkness, not to mention the many uncharted reefs and rocks, Alaska's 15 lights could hardly ensure marine safety. Aware of the special attention required for Alaska, the board vigorously pressed for a special lighthouse district in Alaska as well as for appropriations under "Salaries of light keepers," which would allow the board to contract keepers for post lights. Part of Alaska's needs could have been met by a lighthouse tender assigned to Alaska. Maintenance of post lights and buoys, delivering mail and supplies to lighthouse keepers, etc., required a special tender.

Such incidents as, in December 1905, when the steamer Portland was wrecked while trying to sight the drifting Spire Island buoy, could be avoided. Bills that would provide a separate lighthouse district and a tender for Alaska were periodically introduced in Congress, but routinely lost in committees. (U.S. Senate 1904: 7-8; Seward Weekly Gateway December 30, 1905: 1)

In the meantime, the Lighthouse Board was continually barraged by Alaskans for additional lighted aids. As before, maritime interests in Southeast Alaska made considerable demands. Yet, by 1903, these demands shared importance with those for buoys and daybeacons on dangerous rocks and reefs such as Rosa Reef, Key Reef, Hog Rock, Cutter Rock, many which were named after wrecked ships. (U.S. Senate 1904: 2-4) On the other hand, new demands for navigational aids emerged from other parts of Alaska.

In Western Alaska, where increasing numbers of steamers were plying the Bering Sea to reach

interior mining operations, steamship companies requested more lighthouses in addition to minor aids.

While the board agreed that it was necessary to place lights along the Yukon River and its mouth, it tended to depreciate the need for lighthouses on the Bering Sea coast, except possibly at Nome and Nunivak Island. (U.S. Senate 1904: 6-7)

In Southcentral Alaska, where railroad construction was proceeding, mariners, railway officials, and others requested lighthouses at Resurrection Bay, Cape Spencer, and Cape Decision. The Board tentatively concurred with these requests, forecasting that the completed Alaska Central Railway at Seward would increase marine traffic westward from Juneau through Cross Sound. (U.S. Senate 1904: 2, 4; AR 1905: 12, 16)

Nevertheless, it is clear that the board could not fulfill all of these requests. Congress could or would not provide the necessary funds. As a result, the board was accused by Alaskans of providing poor services. Alaskans asserted that the board could not match the accomplishments of the Canadian service, that it built unnecessarily expensive lighthouses.

Defending itself, the board conceded that the United States had not matched the Canadian service in the past, but pointed to its recent achievements. There was a substantial increase in the number of Alaska lighthouses over the six Canadian lighthouses, which, moreover, were not equipped with modern fog signals. The difference was even wider in respect to buoys and daymarks. While it was true that Alaskan lighthouses cost more than those in Canada, such was to be expected for quality service. All Alaska lighthouses, except that at Guard Islands, south of Ketchikan, provided quarters for two or more



Construction of Cape St. Elias Light Station began in 1915.



Rugged Island Light at the entrance to Resurrection Bay. An aid is still on the site.

keepers with families. Canadian lighthouses only provided accommodations for one keeper without family. (U.S. Senate 1904: 3)

Yet, there was truth in the criticism. Lighthouse construction and maintenance was prohibitively expensive. In 1905, for example, the board complained that the transportation of fuel for a first-class Alaskan light station from where it was purchased to the light station cost more than the fuel itself. (AR 1905: 9) The board consequently relaxed its efforts for lighthouses in favor of buoys, post lights and lanterns. This work was greatly facilitated by the addition of tender *Armeria* to the Thirteenth District, which was annually spared for service in Alaska. The board, did not ignore the need for Alaska lighthouses. By 1905, however, Congress was more particular in releasing money for lighthouse construction. In 1906, when Congress authorized construction of a lighthouse at Cape Hinchinbrook, sufficient funds were not available until 1910. Alaska Central Railway officials, Gov. Brady, and others continued to urge for a lighthouse at the entrance to Resurrection Bay. The board agreed and applied for funds every year until 1931; but Congress never authorized the project. (Seward Weekly Gateway December 16, 1905: 1; Seward Weekly Gateway August 3, 1907: 1; Seward Weekly Gateway May 25, 1907: 1; AR 1906: 146; AR 1909: 30; AR 1932: 27)

The Lighthouse Board's concentration on minor aids in Alaska was not without its beneficial effects. Improved concrete beacons and buoys with submarine signal bells were increasingly utilized throughout Alaska, particularly in the Southeast. Concrete lighted beacons were placed in Prince William Sound and Resurrection Bay for the first time in 1910.

Many of the important points in Western Alaska: Point Romanoff, Canal Point, Cape Stephens, Point Spencer, and the most northern, Cape Espenberg, were marked by 1909 with post lanterns. (LL 1909: 47-48; LL 1909: 44-45; AR 1907: 155) Several important rivers, including Beluga River and the Apoon Mouth, were marked for the first time in 1909. (AR 1910: 51) Following a field expedition to the Yukon River in 1909, the Lighthouse Bureau annually requested funds for lighting points on the Yukon River and its tributaries. (AR 1910: 74-75, Appendix 3)

A building at Scotch Cap Light Station is razed in the late 1930s to make room for a new lighthouse



By expanding its field of operations to include all of Alaska, the board was forced to neglect some areas where large numbers of aids were needed. A case in point is Prince William Sound, where marine traffic was increasing due to a railroad project near Seward and Cordova, gold and copper mining, fishing, and oil exploration. Then, experiencing a boom as a result of these activities, residents of Cordova frequently accused the Board of negligence, stating that the "Canadian government has been far ahead in protecting the safety of shipping." (CDA January 16, 1909: 3)

When the board announced that it would not place additional post lights in Alaska and elsewhere until experiments in the Third Lighthouse District with new lighted buoys were completed, it raised a furor among many Alaskans, who, ignoring the fact that lighted buoys were considerably less expensive than lights requiring keepers, regarded the announcement as another example of federal reluctance to develop Alaska.

Gov. Walter E. Clark of Alaska went to Washington, D.C., to argue for special consideration of Alaska. Shortly thereafter, the board declared that Alaska was to be made an exception. Many Alaskans, of course, credited Gov. Clark for the change in policy. (CDA March 4, 1910: 2; CDA March 30, 1910: 1; CDA May 7, 1910: 3; CDA May 12, 1910: 1)

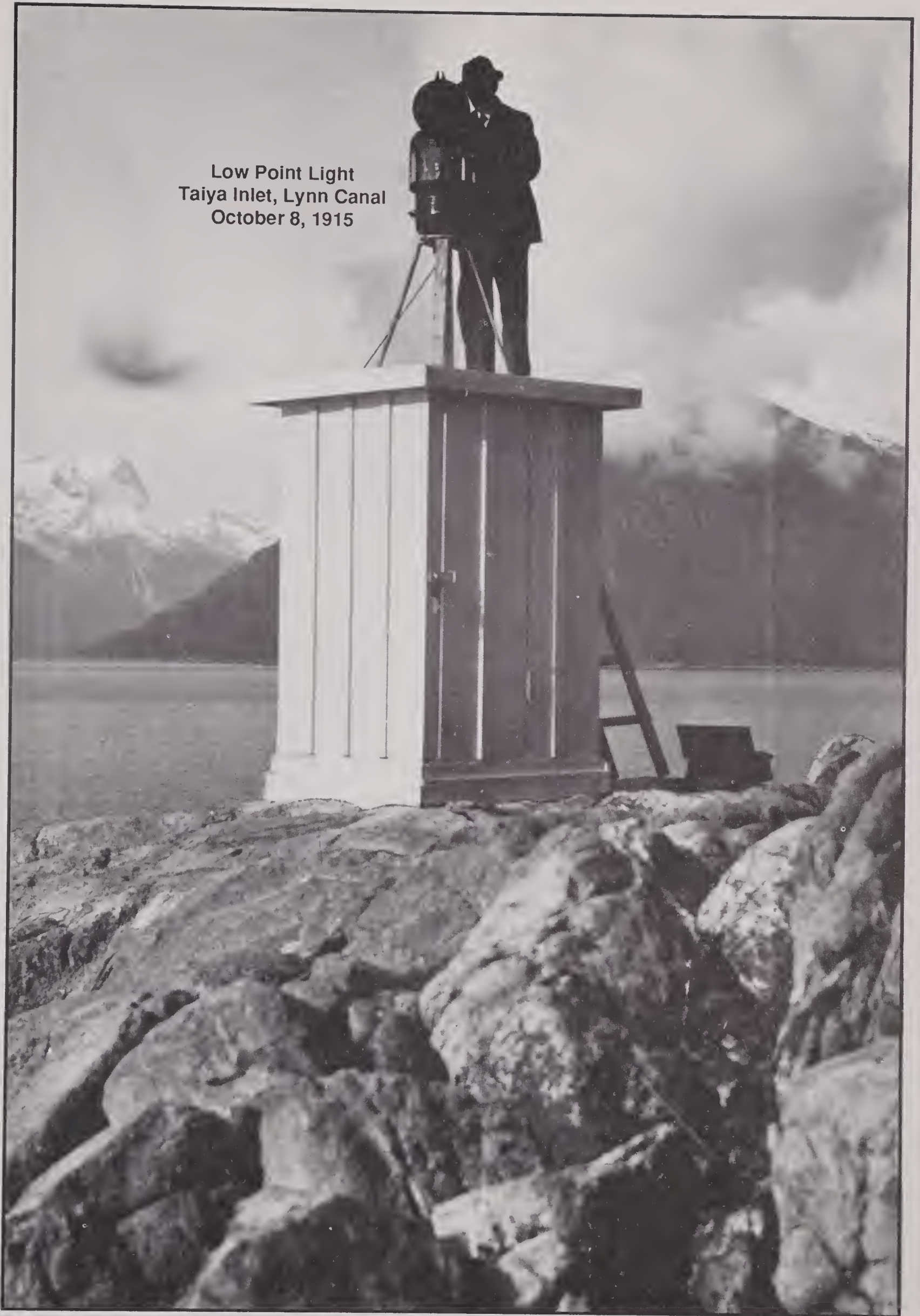
Several factors, however, were involved in the change. No doubt, Clark's visit was important. More significantly, the impending abolition of the Lighthouse Board, replaced by a Bureau of Lighthouses within the Department of Commerce by Act of Congress on June 17, 1900, probably precluded any major policy changes in the immediate future. National attention focused on the reorganization, apparently in the hope that the new bureau would receive more funds from Congress and initiate new policy directives. However, in Alaska's case, the hope was apparently unfounded. Endorsing previous recommendations for light stations at Cape Spencer, Cape St. Elias, and Resurrection Bay Entrance, the bureau still faced the same reluctance in Congress to appropriate money.

When Congress provided an insignificant amount for aids to navigation in Alaska, one Washington reporter charged, "One of the chief duties of the reorganized lighthouse establishment is to explain to inquiring friends that the lighthouse bill passed by the recent congress did not mean anything at all so far as money was concerned." (CDA August 13, 1910: 6) (CDA August 1, 1910: 1; CDA September 5, 1910: 1; AR 1910: 75)

Partly because of such criticism, Clark's visit, and most important, the administrative reorganization, the Lighthouse Bureau soon developed its own policy guidelines. After Secretary of Commerce Charles Nagel and Attorney General George W. Wickersham made an extensive tour of Alaska in 1910, noting the problems and needs voiced by Alaskans, Nagel officially declared that it was the goal of the Lighthouse Bureau to obtain "increased aids to navigation, an extension of the lighthouse service, (and) the creation of a new lighthouse district for Alaska."

It was the latter recommendation which received the greater emphasis. "Alaska is too far away from Seattle to be dependent upon this district for what she needs in the way of supplies or equipment in this (lighthouse) service. There should be a supply station and supply vessel in Alaska waters in order that this department may take due requests for immediate needs, such as the marking of the channel of the Kuskokwim River that was urged last summer by shipping men in order that vessels might get safely into that river with supplies for the Iditarod. I remember that even as this request was made it was necessary to send a few buoys from Seattle on the steamship Lindsay, the first big ship to go into the Kuskokwim." (CDA September 16, 1910: 1)

Low Point Light
Taiya Inlet, Lynn Canal
October 8, 1915



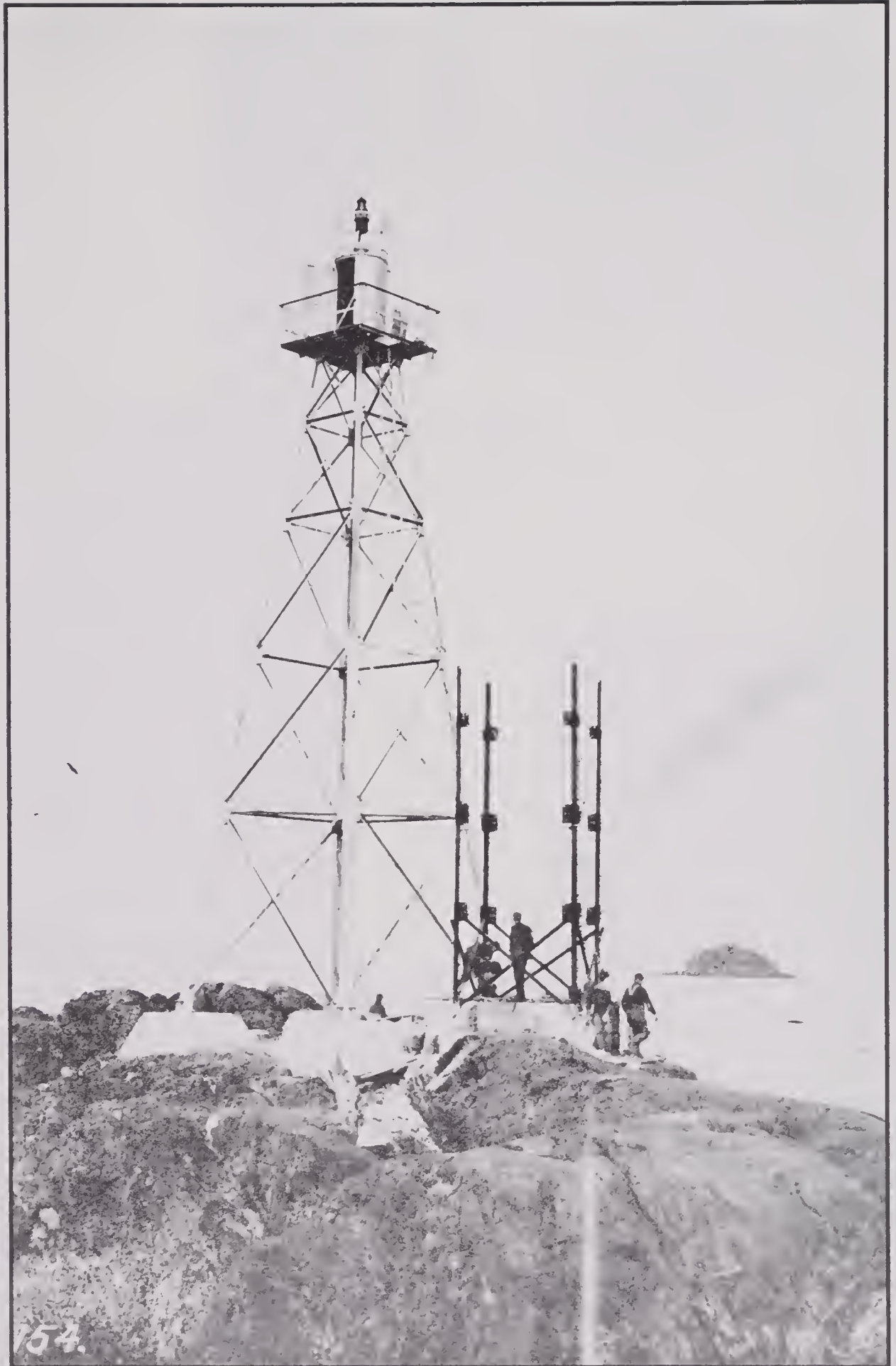
Dewey Rocks Light is located at the southern tip of Prince of Wales Island at the south end of Cordova Bay, June 19, 1916.

At its next session, Congress was thus confronted by a whole battery of requests from the Department of Commerce relating to navigational aids in Alaska. Of course, the demands for more light stations and other aids, as well as an Alaska lighthouse district, were not original. What was important, however, was that the demands were made by a new governmental agency wanting to achieve a reputation for effectiveness. (CDA December 8, 1910: 1)

Closely following Nagel's tour of Alaska, and his subsequent actions in Washington, many Alaskans joined his campaign to achieve special consideration for Alaska. Already a political issue in Southcentral Alaska, demands for navigational aids were fully warranted, considering that four large steamers were wrecked within the past year. (CDA January 10, 1911: 1)

In August 1909, the steamer Ohio struck a reef and sank off Steep Point, near Ketchikan, with considerable loss of life. (CDA August 27, 1909: 1; August 28, 1909: 1)

In 1910, three large ships were wrecked. the steamer Northwestern ran aground on San Juan Island; the steamer Portland was wrecked at the mouth of Katalla River; and the steamer Olympia struck an uncharted reef off Bligh Island. (CDA December 12, 1910: 1; November 12, 1910: 1; December 2, 1910: 1) Alaska Gov. Clark was quick to observe that "the recent wrecks of three steamers in the Alaska trade





The S.S. Princess May grounds near Sentinel Island Light on April 5, 1910. There were no reports of injuries; the vessel was later refloated.

points to the necessity of providing further lights in order that human lives and property may be guarded.

"There is also the important consideration that abundant aids to navigation will have the logical result of reducing freight rates and, consequently, the cost of supplies." (CDA December 28, 1910: 1). Some Alaskans, however, condemned the federal government of general negligence. One reporter went so far as to claim, "With the exception of Siberia, Alaska has been the most neglected country in the world, and it is high time that we were doing something for her people. It is time for the government to take notice of the fact that Alaska commerce is being hampered by the lack of these navigations which the importance of the Alaskan trade requires should be provided. The coast of Alaska is strewn with wrecks of American vessels, involving the loss of vast sums of money and many valuable lives." (CDA December 8, 1910: 1)

In 1910, when Congress created the Sixteenth Lighthouse District for Alaska, the Act received scant attention in newspapers in Southcentral Alaska. The establishment of the new district meant an expanded role of the bureau in Alaska. Much to the chagrin of some groups in Seattle, it also meant the location of a large supply depot in Ketchikan. (CDA October 7, 1910: 3) The import of the Act, however, was apparently not understood by Alaskans, angered as they were by recent shipwrecks and Congress' meager appropriation of \$60,000 for aids to navigation in Alaska. The Cordova newspaper was especially critical.

"The Lighthouse service expended \$5,000,000 for the fiscal year ending June 30, 1910, of which \$1,339,000 went for the construction of additional aids. Of this latter sum, Alaska received a paltry \$60,000, less than 5 percent of the total appropriation. This ridiculously small sum was supposed to cover the wants of 3,000 miles of coastline, used annually by 1,000 ships, with cargoes valued at \$31,000,000 and transporting 50,000 passengers to and from Alaska.

"The marine disasters in Alaska are out of all proportion to the volume of shipping employed. In the last 10 years there have been 46 total losses. For the calendar year 1910, there were seven total losses, valued at \$625,000; three accidents in which the ships were valued at a cost of \$140,000, besides casualties of a minor nature.

"This neglect would not be tolerated in any private concern and were any employer to subject his employees to the same relative risks as are entailed by reason or lack of navigational aids in Alaska, he would be denounced by the community for criminal negligence."

That this attitude was not limited to Alaska is apparent in an article appearing in *Railway and Marine News*, a Washington state publication. Demonstrating that at least 79 vessels were lost in Alaska during the years 1878 to 1911, the *News* claimed that underwriters had paid out \$7 million for total



Cape St. Elias gas and whistling buoy is lowered into Orca Inlet from the lighthouse tender Cedar on July 19, 1918.

losses, and nearly as much for wrecked and salvaged vessels.

As most ship disasters and loss of lives were the result of lacking aids to navigation, the News concluded, "Surely, if the Canadian government can afford to supply 105 aids to navigation along a stretch of water not more than 600 miles, the U.S. government, with such an empire as Alaska, can afford to be as liberal." (CDA October 16, 1911: 3)

As a federal agency, the Lighthouse Bureau was not immune to public opinion. This factor, in addition to the Lighthouse Service's reorganization in 1910, accounts partly for the significant increase

(37 to 85) in the number of lighted aids between 1910 and 1912. Also, technological advances offset the lack of large Congressional appropriations. Before 1909, lights burned kerosene and required frequent maintenance; later, acetylene was employed, which burned continually and without attention for at least six months. Moreover, each acetylene light only cost about \$1,800 a year to maintain.

The intensity of these lights ranged from 180 to 520 candlepower, the latter being the same as fourth-order lights at many Alaska stations, namely Mary Island, Lincoln Rock, Five Finger Islands, Sentinel Island, and Eldred Rock Light Stations. (CDA April 23, 1912: 3)

Considering the expense involved in building and maintaining lighthouses, no wonder that the Lighthouse Bureau favored minor lighted aids and pressed for their establishment in Alaska. Alaska Gov. Clark himself, long a critic of federal activities in Alaska, certainly endorsed this policy.

"If some projects must wait, it would better be large light projects, for great progress has been made in the installation of the smaller lights (which are just as good and even better for certain locations) in the last two years." (CDA December 29, 1911: 1). Thus, he urged Congress to appropriate funds only for Cape St. Elias Light Station, which one steamship captain compared as being "by all odds the most important aid to navigation yet recommended for Alaska," (CDA January 23, 1911: 3) rather than a *carte blanche* for all recommended light stations. (CDA December 29, 1911: 1) And, in fact, Congress approved construction of Cape St. Elias Lighthouse in 1911, but failed to appropriate the necessary funds until 1913. (CDT December 30, 1915: 3; CDA September 25, 1912: 4)

By 1912, many Alaskans realized the tremendous advantages of the new acetylene lights and appealed for their establishment in Alaska. On April 3, 1912, for example, delegates to a non-partisan convention at Cordova resolved, "We demand that additional lights and beacons be installed along the coast of Alaska." (CDA April 2, 1912: 1). One editor in Cordova probably summarized the attitudes of many Alaskans under the heading "Let There Be Light".

"We are informed, upon good authority, that the total length of coastline in the Alaskan possession, is equal to that of the Atlantic and Pacific combined belonging to the United States proper. If this be true, what a reflection upon the lawmakers of the country for failing to provide proper lighthouses along its rock storm bound coast, when the lawmakers should know passenger steamers and sailing vessels carrying many passengers ply its waters.

"For years, Congress has been neglecting aids to navigation notwithstanding that the urgent need for them has time and again been called to its attention. Gov. Clark has been fighting for lighthouses for the past two winters, and his predecessors were after the same thing, but the members of Congress who appear to be purposely remiss in anything affecting Alaska, would grant the petitioners an interview, perhaps a smile, then dismiss them from their presence, and their wants from their minds, in such a manner it is now turning out to be criminal neglect.

"There is to be a lighthouse installed at Cape St. Elias, but there are other points where more light should be sent as beacons across the waves, and we trust Congress will not wait until a number of lives have been sacrificed, but get busy. We contend that the life of an Alaskan is just as valuable to the country as that of a multimillionaire, in fact more so, for they develop the country and exploit its resources, although we cannot afford to lose either, for a life is a life, and no country can well afford to lose a good citizen by untimely deaths." (CDA July 13, 1912:2)

**North Ledge Beacon in
Wrangell Narrows 12 miles
south of Petersburg
April 27, 1918.**

However fervent were demands for aids to navigation, particularly lights, it must not be forgotten that they largely reflected the political situation in Alaska. Many demands were made upon Washington in the early 1910s, and most were considered more important than navigational aids. Of course, the cry for territorial government was probably the most outstanding. When President Howard Taft endorsed the Second Organic Act on August 24, 1912, many Alaskans incorrectly assumed that a large part of Alaska's problems would soon be solved. To some extent, the attitude was justified.

The territorial legislatures enacted many laws of benefit. On the other hand, federal government agencies had a more expanded, diversified role in the affairs of Alaska, while other agencies were created to administer new responsibilities in Alaska. Such was the case with the Alaska Engineering Commission in 1914, when Congress provided for the construction and operation of a federally owned railroad in Alaska.

Once it became clear that Alaska would have a federal railroad, demands for aids to navigation increased significantly. The United States Department of Commerce made the loudest cry. On February 12, 1914, Secretary of Commerce William C. Redfield took the occasion of the Second Annual Meeting of the Chamber of Commerce of the United States of America to announce his approval of the Alaska railroad project, but stressed that its value would never be realized until Alaskan waters were as safe to shipping as in British Columbia.

The construction of the railroad, opening of the coal fields, and consequent rise in Alaskan commerce, made it imperative that additional aids to navigation be placed on Alaskan coasts. More lighthouses should be constructed; a wire-drag survey of the waters should be made; and lighthouse tenders equipped with wireless communication systems should be stationed in Alaska. Otherwise, heavy losses in lives and ships would continue to hamper the full development of Alaskan commerce. (CDA Feb. 13, 1914: 1)





Photo courtesy Jim Gibbs

The lighthouse tender *Armeria* runs aground off Cape Hinchinbrook on May 20, 1912. The *Armeria*, the first vessel permanently assigned to the new Alaskan District, was engaged in landing coal and supplies for the new light station when it struck an uncharted rock and became a total loss. The inverted national ensign on the vessel's stern signaled that the vessel was in danger.

Shortly after his address in Washington, Redfield embarked on a tour of the Pacific Coast states, ostensibly to generate public opinion for Congressional attention. Speaking before San Francisco's Chamber of Commerce on May 24, 1914, Redfield essentially repeated his February 12 speech, though adding that the department had requested four additional vessels to survey the coast of Alaska. (CDA March 26, 1914: 1) To the Commonwealth Club of San Francisco, he argued, "The department is not going to build railroads in Alaska, but before those roads are ready for use we intend to make it safe to reach the railroads." (CDA March 26, 1914: 1) While in Seattle, Redfield announced that he expected \$500,000 from Congress for three new coast survey vessels and the largest lighthouse tender in government service, all to be stationed in Alaska. (CDA March 30, 1914: 1)

No doubt, Redfield sincerely believed that the Alaska railroad would "mean a great era of prosperity for the territory and the Northwest, "that consequently the responsibilities of the Commerce Department in Alaska would grow." (CDA April 10, 1914: 1) However, it is also apparent that Redfield was placed in an uncomfortable position because of the Alaska railroad project. The reasons are obvious. In 1913, the steamer *State of California* was totally wrecked on an uncharted reef in Gambier Bay. Thirty-one lives were lost and the wreck, itself, cost \$225,000. (CDA October 1, 1915: 3) Shortly thereafter, the steamer *Curacao* was wrecked in Warm Chuck Inlet, a disaster costing \$235,000. (CDA October 1, 1915: 3) The only lighthouse tender in Alaska, *Armeria*, was itself wrecked in May 1912 on an uncharted reef off Cape Hinchinbrook; it was replaced by tender *Columbine*, which was urgently needed in other districts. (CDA May 20, 1912: 1; CDA September 25, 1912: 4)

Knowledge of these and other marine disasters probably left Redfield little choice but to resort to public opinion as a weapon to use against Congress' chariness. True, Redfield's personal interest was also at stake. Any ship disaster, which would be expensive in lives or underwriters' costs, and in any way connected to the \$35 million Alaska railroad project, would cast opprobrium on the Department of Commerce. Considering the national attention which the Alaska railroad project received, Congress would be forced to seek scapegoats for any reversals in the project. It is no wonder that Redfield took the



The lighthouse tender Hemlock.

initiative by attributing the sinking of the steamer State of California to Congress' niggardliness. (CDA April 10, 1914: 1)

No wonder that in his "strong appeal to Congress," Redfield declared that it was "mockery to undertake the building of a railroad while access to that railroad, even in its preliminary stages, is rendered dangerous to life through the lack of proper safeguards which we know exist and which we lack the means to go ahead and supply the defects." (CDA April 11, 1914: 1) No wonder that a Washington reporter was led to remark, "Never before has a cabinet officer made the necessity of Alaska's needs in this particular a matter of such personal interest as has Secretary Redfield." (CDA April 14, 1914: 4) No wonder that Commissioner of Lighthouses E.R. Putnam was dispatched on a tour of Alaska waters during the summer of 1912, the year that Congress first ordered the president to survey railroad routes in Alaska. (CDA September 25, 1912: 4) For, in real terms, Redfield's personal interests were very much at stake. The success of the federal railroad project was contingent upon Congress' willingness to support



The 200-foot lighthouse tender Cedar in drydock in October 1919.



Capt. John W. Leadbetter skippered the Cedar starting in 1917, when the ship was completed.

the project and all federal agencies connected to it in any way.

Considered to be "among the true and influential friends of the northland", (CDA April 14, 1914: 4), Redfield obtained the support of a number of interest groups. The Seattle Chamber of Commerce forwarded a "strong recommendation" to the Washington delegation in Congress to endorse Redfield's appeals. (CDA April 14, 1914: 4) Five leading steamship companies of Puget Sound memorialized Congress for resurveys of Southeastern Alaska. (CDA April 22, 1914: 3) Alaska Gov. John A. Strong also made a lucid argument for navigational aids. (AG 1914: 20-21) And, of course, the Bureau of Lighthouses conducted an extensive lobbying campaign in Congress. (CDA June 8, 1914: 1)

The campaign was effective, although not to the degree that Redfield wished. Funds were appropriated for construction of the Cape St. Elias Light Station, and for wire-dragging operations, which began in July 1914 by tug Chehalis. (CDA June 23, 1914: 1; July 1, 1914: 1) Continuing the lobbying campaign with the aid of Alaska delegate James Wickersham, Gov. Strong, President Woodrow Wilson and others, Redfield succeeded in convincing Congress of Alaska's urgent need for an effective system of aids to navigation. (CDA July 10, 1914: 1; October 29, 1914: 1; CDT December 31, 1914: 1)



Lighthouse tender Columbine

During the years 1915 to 1923, while the Alaska Railroad was constructed, Congress poured funds in Alaska as never before, a great deal going to the Bureau of Lighthouses. In 1916, the new lighthouse tender Rose, built in Seattle, was stationed in Alaska. It was soon joined by tender Cedar, especially designed for Alaska service and the largest (1,970 tons displacement) in government service. (CDT August 8, 1916: 1; Deane 1938: 21) (Tender Rose was later replaced by Fern, which was itself replaced in 1935 by the larger Hemlock. See AG 1933: 21; AG 1935: 27.) In 1917, gas buoys were first utilized in Alaska, thereby warning mariners of former unmarked rocks, reefs, and the like. In July 1918, Congress appropriated \$90,000 for the construction of a lighthouse depot for Alaska service at district headquarters, Ketchikan.

The depot project was completed in 1920. (AG 1919: 66; AG 1920: 41) The Yukon River and its tributaries were marked by post-lantern lights not long after Congress' authorization of the project in June 1920. (AG 1920: 40) Annual recommendations made by the Lighthouse Service and other organizations, such as the Alaska Advisory Committee, appointed by the Secretary of the Interior, eventually led to Congress' approval of the construction of Cape Spencer Light Station, marking the entrance to Cross Sound. In the meantime, the Lighthouse Service was appropriated funds for an Alaska-wide project improving many existing light stations with more powerful fog-signals and lights. (AG 1920: 103-04; AG 1923: 56)

By 1923, much of Alaska's coast was dotted with an effective system of navigational aids. In comparing the statistics of 1912 with those of 1923, significant progress is evidenced:

	<u>1912</u>	<u>1923</u>
Lights	85	212
Fog Signals	10	14
Buoys	105	272 (includes 14 gas buoys)
Daymarks 30	101	
Total	230	634

The achievements of the Lighthouse Service were not lost on Alaskans. Commenting on the fact that no shipwrecks were reported in 1916, a newspaper editor wrote, "This is largely due to better aids to navigation and in this connection it is a pleasure to warmly congratulate the Alaska workers of the United States coast and geodetic survey, who have so consistently carried on the work of wire-dragging the waters, while the lighthouse employees have been energetic in paying close attention to existing lights and recommending others." (CDT January 23, 1917: 2) Such compliments were probably paid to the Lighthouse Bureau frequently in later years.

Nevertheless, the task of establishing an effective system of aids to navigation was far from completed. Again, technological advances came to the aid of the Bureau. During the 1930s, radio beacon facilities were installed in many of the light stations and located at points on the Alaska coast, such as Soapstone Point and St. Paul Island, ready, at anytime, to notify a mariner of his position. (AG 1931: 90; AG 1937: 31).

By 1936, all radio beacons in southeastern Alaska were improved to conform to standard systems throughout the United States and Canada by international agreement. Other Alaska light stations were subsequently converted to the new system. (AG 1936: 29) During the same period, many new automatic lights, using dry batteries, which required infrequent maintenance, were placed throughout Alaska. (AG 1934: 27) Many light stations of frame construction were replaced with modernistic, reinforced concrete structures during the 1930s, improved at the same time with the more reliable electric lights. (AG 1928: 635) In 1932, Cape Decision Light Station was placed in operation, marking the southern entrance to Chatham Strait for deep-sea vessels. Because of the increasing work, the 72-foot diesel tender Alder joined Cedar and Hemlock in April 1939. (AG 1939: 37) Not long thereafter, on July 1, 1939, the Lighthouse Service was amalgamated with the Coast Guard. (AG 1940: 37) The existence of the Bureau of Lighthouses came to an end.

The abolition of the Bureau of Lighthouses marked a turning point in the history of aids to navigation, not only in Alaska, but throughout the nation. It was, in fact, only one aspect of the federal government's rush to prepare for a war that was almost sure to engage the American people.

When the war did come, tremendous pressures were placed on the Coast Guard to ensure the safety of American military transports to Alaska. Several light stations, such as those on Smith Island and Spruce Cape, were hastily established; many minor aids were established; and existing facilities were renovated and improved. (AG 1941: 43; USCS November 5, 1974: p.c.)

Without question, the Second World War and the ensuing Cold War stimulated the evolution of



Anchor Point Light, 12 miles south of Petersburg, August 2, 1915. There is no longer a light on this site.



Buoys line the dock at the leased Lighthouse Service depot building in Ketchikan, December 1916.

Alaska's system of aids to navigation to a point of effectivity unknown anywhere else in the world.

Yet, much of the work of the Coast Guard in Alaska was already accomplished by the Lighthouse Board and Bureau of Lighthouses. True, the board was virtually unrepresented in Alaska from 1867 to the early 1900s. However, considering Alaska's insignificant commerce before the 1880s, there was no real need for aids to navigation. When the need did arise, shortly after the founding of Juneau and Douglas, the board made sincere, but fruitless efforts to establish the aids. Alaska's position in the Thirteenth Lighthouse District and weather conditions, combined with Congressional chariness and crude technology, were important factors obstructing the development of safe marine traffic.

Nevertheless, the mere fact that board officials were operating in Alaska during the years 1884 to 1900, proved to be of inestimable value, simply because they acquired first-hand information about Alaska's environment and requirements.

Thus, in 1900, when Congress finally heeded the call for aids to navigation, the board knew exactly where and what kind of aids needed to be established in Alaska. From 1902 to 1906, 12 light stations were commissioned in Alaska, 10 of which were located in Southeast Alaska. In a sense, these light stations were products of the Klondike Gold Rush; in fact, four were located between Juneau and Skagway, then booming as a major supply and departure point to interior gold fields. The most significant feature of these light stations was not so much the event which gave rise to them, but the fact that all, but two, continued their original function until the late 1960s and early 1970s. Obviously, the board was responsible for the framework of Alaska's system of aids to navigation which lasted almost to this day.

If the board defined the outline of the system, the Bureau of Lighthouses refined and expanded the system to maximum efficiency. Unlike the board, which tended to concentrate on lighthouse construction, the bureau stressed the need for minor aids, particularly lights. Its success was the result of many factors. Advances in technology produced such devices as acetylene lights and gas buoys; and later, radio beacons and electric lights, all of which could be placed and maintained at a nominal cost.

Wiredragging operations placed formerly unknown submerged rocks and reefs on navigational charts. The creation of a separate lighthouse district for Alaska in 1910 greatly facilitated the work of the bureau.

And finally, public opinion and construction of The Alaska Railroad stimulated Congress to appropriate the necessary funds for the effective operations of the Lighthouse Service. All of these factors combined to produce the highly developed system of aids to navigation which now exists in Alaska.

Aids to navigation continued to flourish as a vital asset to the Alaskan mariner. Eventually, 16 light stations and numerous other aids were established, most of which were in Southeast Alaska. On July 1, 1939, the Lighthouse Service was transferred to the Coast Guard. Although some Lighthouse Service employees were let go, some keepers became Coast Guardsmen, generally chief petty officers or first class petty officers. Others were retained as civilian keepers.

The Coast Guard introduced "Operation LAMP", a program to automate the service's 150 lighthouses nationwide, in 1968. As a result, all light stations in Alaska were automated and unmanned. The last light to be unmanned was Five Finger Light Station in 1984.

In 1945, the Coast Guard introduced the loran (long range aids to navigation) system to help guide the mariners of Alaska. Loran is an electronic system whereby two stations, synchronize signals. These signal pulses are received aboard a ship by a loran receiver, which electronically measures the intervals between the times of their receptions in a split second. A ship or aircraft can pinpoint its position by these radio signals. There are six loran stations in Alaska: Tok, Kodiak, Port Clarence, Attu, St. Paul and Shoal Cove.

The keepers of Alaska light stations are gone. The 12 remaining lighthouses are maintained by Coast Guard civil engineers who survey the buildings every two years to determine the structures' soundness. Buoy tenders and the Seventeenth Coast Guard District Aids to Navigation Team maintain the appearance and keep the lamps burning brightly.



Loran Station Attu, located on the last island of the Aleutians, was commissioned in the 1960s.

Part II

**LIGHT STATIONS of
ALASKA HISTORY**

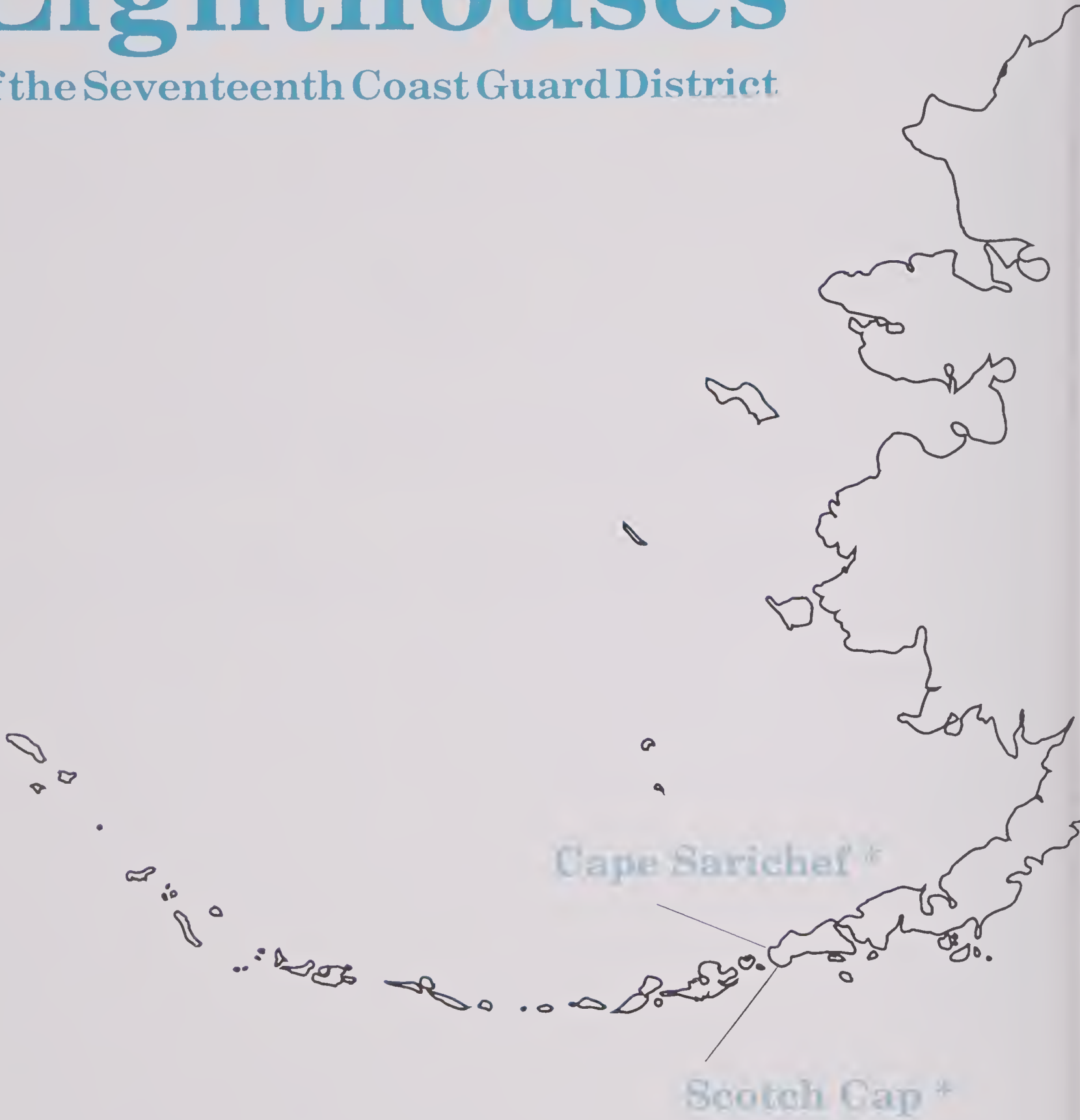
TABLE 2

Light Stations in Alaska

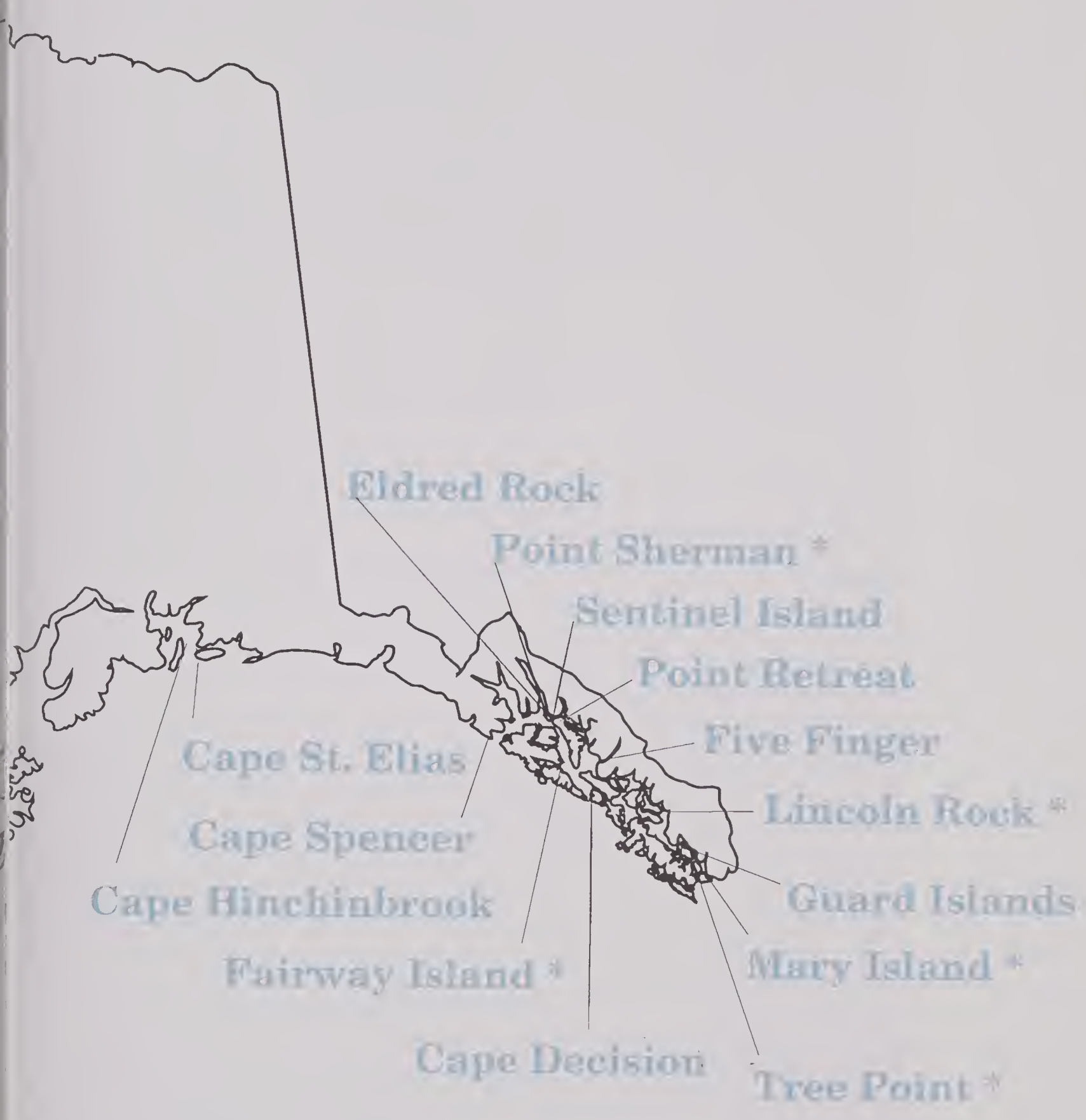
Station	Lighted
Sentinel Island	March 1, 1902
Five Finger Islands	March 1, 1902
Scotch Cap.....	June 18, 1903
Mary Island	July 15, 1903
Lincoln Rock	December 1, 1903
Tree Point	April 30, 1904
Cape Sarichef.....	July 1, 1904
Fairway Island	September 1, 1904
Guard Islands.....	September 15, 1904
Point Retreat	September 15, 1904
Point Sherman	October 18, 1904
Eldred Rock	June 1, 1906
Cape Hinchinbrook	November 15, 1910
Cape St. Elias	September 6, 1916
Cape Spencer	December 11, 1925
Cape Decision	March 15, 1932

Lighthouses

of the Seventeenth Coast Guard District



* Has been downgraded to a minor light



**Sentinel Island Light
Circa: 1902**



Photo courtesy Alaska State Library





Sentinel Island Light, 1988.

Sentinel Island Light Station

As one of the earliest lighthouses in Alaska, Sentinel Island Light Station marked the northerly end of Favorite Channel into Lynn Canal, 23 miles northwest of Juneau. It was constructed by George James of Juneau at a cost of \$21,267, and was first lighted on March 1, 1902. (The Sitka Alaskan July 27, 1901: 1; AR 1900: 38; AR 1901: 210; AR 1903: 241)

The light station originally consisted of a keeper's dwelling, fog-signal house, oil house, wharf, derrick, carpenter shop, and a tramway linking the wharf and oil house. Most of the minor structures were built in 1903-04. The fourth-order, fixed-white light, 82 feet above mean high water, or about 42 feet above land, was displayed from a square tower attached to the center of the westerly front of the keepers dwelling, which was a square, double, two-story building with hipped cross gables. The fog-signal house, equipped with a third-class Daboll trumpet, was 60 feet westerly of the oil house. All structures were wooden, painted white with brown roofs. (LL 1908: 108; LL 1909: 46-47; AR 1904: 173; AR 1905: 173)

Through the years, the station was periodically improved. In 1926, a new illuminating apparatus was installed, increasing the candlepower from 600 to 1,600. (AG 1926: 70) The intensity of the light was again increased in 1929, when the illuminant was changed from acetylene to electricity. A second-class, short-range radio beacon was placed in operation in December 1928. (AG 1929: 65; AG 1931: 90; AR 1928: 31; AG 1929: 3) Finally, during the years 1933 to 1935, a light and fog-signal building was constructed with reinforced concrete at a cost of \$35,310. A square tower (11' x 11' x 25') projected above the roof of a two-story fog-signal building (28' X 34'). (ARSC 1933: 115; AG 1934: 27; ARSC 1935: 126; USCG January 15, 1974: p.c.; Snow 1935: 276)

Due to inflation and technological advances, the light station was unmanned and automated in 1966. The two-story keepers' dwelling was retained until 1971, when burned by the U. S. Coast Guard. Only the tower and foundations of the keepers' dwelling and original fog-signal house remain on 6.55 acres of the lighthouse reservation. In June 1987, the crew of the buoy tender Woodrush installed 15 solar panels at the light to replace the use of electricity. (USCG January 15, 1974: p.c.; Thrasher 1974: 12-13)



Left: Sentinel Island's wharf and boat-house, June 21, 1915. Below: The lighthouse is modernized with the installation of solar panels to reduce the need for generators, and to cut maintenance costs.



Five Finger Islands Light Station

Five Finger Light Station is located 37 miles northwest of Petersburg, in the northerly part of Frederick Sound. Contracted for \$22,500 on July 6, 1901, the station was completed during the latter part of January 1902. The light was displayed for the first time on March 1, 1902. Because all of the light station's structures were complete before Sentinel Island Light, some consider Five Finger Light the first manned light station in Alaska.

Rising from the southerly end of the roof of a two-story dwelling, which also housed the fog-signal apparatus (a Daboll trumpet), the 49-foot square tower displayed a fourth-order (420 c.p.), fixed-white light, 68 feet above mean high water. Northward of the light and fog-signal building was an oil house on a concrete pier. Other structures included a landing platform, which was raised four feet, strengthened and enlarged in 1903-04, a workshop (12' x 20'), and an engine house. The hoisting engine and boiler were near the landing platform. All structures were wooden, painted white with brown roofs. (AR 1904: 171; AR 1905: 176-77; LL 1908: 107; LL 1909: 46-47)

In late 1931, the station was improved with a third-class radio beacon, making it the sixth in Alaska with such facilities. (AG 1931: 90) The light and fog-signal building was destroyed by fire on December 8, 1933. The crew of lighthouse tender Cedar was landing supplies at the time and helped save the boathouse and carpenter shop. By December 1935, at a cost of \$92,267, a new light station was commissioned on a nearby island. (57. 16' 00" N / 133. 37' 12" W). (ARSC 1934: 107; ARSC 1936: 123)

Located on a concrete pier, the one-story, reinforced concrete building (40' X 40') with a square tower (13' X 13' X 68') rising from its center, housed all equipment and three keepers. The fourth-order (7,100 c.p.) electric light was shown 81 feet above water. The floor of the structure included a combination living



The original Five Finger Light Station, completed in March 1902, was destroyed by fire in 1933.



Above: Five Finger Light in the 1960s. Left: Construction of the second Five Finger Light in 1935.



room and kitchen, four bedrooms, bath, boiler room, radio room, engine room, battery room, and storage space. The three-quarter basement was full of machinery, all in duplicate. A new radio beacon was synchronized with the compressed air diaphone fog-signal. Two one-story, rectangular buildings, a hoisting boom, and numerous cisterns were located near the lighthouse. (Mestrezat 1939: 13; AG 1935: 27; AG 1936: 29; ARSC 1936: 123; USCP 1969: 140; USCG January 15, 1974: p.c.)

Five Finger Light Station became the last lighthouse in Alaska to be automated. On August 14, 1984, the last four Coast Guardsmen left the station. Five Finger Light Station also serves as a national weather forecasting center.

Five Finger Islands Lighthouse
1988







Scotch Cap Light Station

Scotch Cap Light Station, located on Unimak Island, was the first light erected on the outside coast of Alaska. Marking the inside entrance to Unimak Pass, 70 miles northeast of Dutch Harbor, Scotch Cap Light was the most southerly in Alaska. It was one of the most isolated light stations, particularly during the winter when travel to the station by boat was often hampered by adverse weather conditions. Scotch Cap's nearest neighbor was Cape Sarichef Light Station, 22 miles to the southeast.

Stories abound recounting the hardships of the Scotch Cap keepers. One keeper, for example, reportedly froze both of his hands while trying to go from the lighthouse tower to his home during a blizzard; his life was saved by a dog that led him to safety. (CDA May 9, 1911: 3) Because of the hazardous duty at Scotch Cap, each of the three keepers received one year's vacation every four years. No families were allowed to remain at the station. (USCG 1957: 3)

Marking the southerly entrance of a natural route through the Aleutian Islands, the station is a monument to many ship disasters, before and after its establishment. In 1909, the cannery supply ship *Columbia* was wrecked near Unimak Island. It took two weeks before a ship could relieve the lighthouse keepers of the vessel's 194 crew members. (CDA May 28, 1909: 4) The Japanese freighter *Koshun Maru*, lost in a snowstorm, ran up the beach near the light station in 1930, as one author put it, "with the Scotch Cap siren blowing in her ear." (Willoughby 1946: 182-83) In 1942, the Russian freighter *Turksib* was wrecked near the station, with the loss of the captain and one sailor. The 60 survivors were cared for by the lighthouse keepers for several weeks, no rescue ship being able to reach the station due to rough seas. (Snow 1955: 279)

Bids to construct Scotch Cap Lighthouse were opened on March 22, 1902. All were subsequently rejected as too expensive. The Lighthouse Board then hired laborers and purchased most of the construction materials. On June 23, 1902, the steamer *Homer* left Seattle for Scotch Cap with 30 workers and a doctor. (AR 1902: 241; AR 1905: 178; Deane 1938: 21) Although the fog-signal was placed in operation on July 15, 1903, the station was not lighted until July 18. The project was completed at a total cost of \$76,571. (AR October 15, 1903: 88; Deane 1938: 21)

Opposite page: The original Scotch Cap Light Station, 1903. Below: The second lighthouse shortly after it was erected in 1940. The original lighthouse is visible behind and to the right of the newer structure.



Equipped with a third-order, fixed-white light (2,300 c.p.) and a 10-inch air whistle, fog-signal, the station was located on a low bluff near the beach. The light and fog-signal building was a one-story, wooden, octagonal structure with a pyramidal roof, from which rose an octagon tower surmounted by a black cylindrical lantern. The height of the structure was at least 35 feet, leaving the light 90 feet above mean high water. Two oil houses, three dwellings, a barn, and a boathouse were located southwestward of the lighthouse. (LL 1908: 115; LL 1909: 46-47; LL 1916: 144-45; AR 1905: 176-7) Later, in 1904-05, a windbreak was erected behind the fog-signal building, a telephone and call-bell system installed, and a handrail was placed along the roadway from the dwellings to the fog-signal building. (AR 1905: 173)

During the 1920s and 1930s, both light stations on Unimak Island underwent improvements, alterations, and finally, reconstruction. In 1922-23, the U.S. Navy installed radio-telephones at the stations. (AR 1923: 13)

Five years later, new fog-signal engines and compressors were placed in operation. (AR 1928: 4) First-class radio beacons were installed in 1930-31. (AG 1930: 77; AG 1931: 90) Finally, in 1940, at a cost of about \$150,000, a new concrete reinforced lighthouse and fog-signal building was erected only a few yards from the original lighthouse site. A concrete sea wall was also placed near the station. (AG 1939: 37; AG 1940: 38; AG 1941: 43; ARSC 1939: 128)

On April 1, 1946, at 2:18 a.m., disaster struck Scotch Cap. "Terrific roaring from ocean heard, followed immediately by terrific sea, top of which rose above cliff and struck station, causing considerable damages," wrote the watchstander at the Radio Direction Finding Unit, located on the cliff overlooking the light station. The D/F Unit watchstander immediately tried to reach the light station by radio, but received no reply. The watch noted in the log that Scotch Cap's "light extinguished and horn silent". The officer in charge of the D/F station ordered his men to higher grounds. The tsunami, believed to be 100



feet high, destroyed the entire station, killing all five Coast Guardsmen. The bodies of Chief Boatswain's Mate Anthony Lawrence Pettit, Fireman 1st Class Jack Colvin, Seaman 1st Class Dewey Dykstra, Motor Machinist's Mate 2nd Class Leonard Pickering, and Seaman 1st Class Paul James Ness washed up on the beach a few days later, identified only by their bridgework and jewelry. The foundations of the former light and fog-signal building were still visible in 1967. (Snow 1955: 279-80; USCG January 15, 1974: p.c.)

Shortly after the disaster, a temporary unwatched electric light and a radio beacon, displayed from a small white house, were established at Scotch Cap. By early 1950, a new light and fog-signal station was commissioned, this time located on the cliff safely above the sea. (54, 23' 48" N / 164° 44' 36" W). (USCG 1957: 3; Gibbs 1955: 219-21; Snow 1955: 280)

From a square tower (15' X 15') rising from the end of a flat-roofed, rectangular (20' x 34'), one-story concrete structure, an electric white light (240,000 c.p.) is displayed 116 feet above water. Behind the lighthouse is a flat-roofed, oblong, concrete structure, presumably the keepers' quarters and loran facilities, and a white quonset hut. At some distance northward of the lighthouse is an unidentified two-story, rectangular structure with two one-story buildings attached. (USCP 1954: 349; Snow 1955: 280; USCG 1957: 3; USCG January 15, 1974: p.c.)

The lighthouse reservation includes 8,852 acres of land. In 1971, the station was automated and unmanned. (USCG January 15, 1974: p.c.)



Above: Debris of Scotch Cap Light Station is strewn along the beach after a tsunami struck the station on April Fools' Day 1946.

Below: Today, Scotch Cap Light is located atop a cliff above the original lighthouse site. Opposite page: Keepers Oscar Lindberg (left) and "Uncle" Barney Lokken pose with a Christmas tree delivered by a passing steamer. No trees grow on Unimak Island.





The original lighthouse structure at Mary Island.

Mary Island Light Station

The second lighthouse encountered by seafarers entering the Inside Passage from the south was Mary Island Light Station, one of the first in Alaska recommended by the Board of Lighthouses. As early as 1890, the Board requested \$80,000 for the station. When, in 1892 a customs house was established on Mary Island, 10 miles south of Ketchikan, the board proposed to place a "small, inexpensive light" on the island, reasoning that the light could be maintained by customs employees at an annual cost of \$800. However, Congress failed to act on the recommendation. (AR 1890: 35; AR 1892: 201; AR 1893: 176-77)

Shortly after the Klondike Gold Rush of 1897-98, Congress authorized a light station on Mary Island and appropriated the necessary funds. The Board of Lighthouses granted a building contract on April 11, 1902. Landing at the site in late May 1902, the contractors completed the project on July 31, 1903. The station was lighted for the first time on July 15, 1903. (AR 1902: 241; AR October 15, 1903: 88; AR 1904: 170)

The main structure at the light station was an octagonal, one-story, wooden fog-signal building with a pyramidal roof, surmounted by an octagonal tower with a black cylindrical lantern. A fourth-order light was displayed 45.5 feet above land or 67.5 feet above water. The third class fog-signal, a Daboll trumpet, projected easterly from the structure. About 40 feet behind the lighthouse were two, one-story, galvanized-iron oilhouses. Two one-and-one-half-story frame dwellings were about 100 feet behind the light and fog-signal building. A boat-house, carhouse, and derrick, each a one-story frame structure, were located



The surf boat at Mary Island.



Mary Island's living quarters

west of the lighthouse. (LL 1908: 100; LL 1909: 44-45; LL 1916: 118-19; AR 1905: 176-77)

While the Bureau of Lighthouses improved the station in 1926, when a new illuminating apparatus was installed, thereby increasing the intensity of the light from 600 to 6,000 candlepower; and again, in 1931, when

a third class radio beacon was placed in operation, the U. S. Coast Guard determined in the late 1930s that the lighthouse required reconstruction. (AG 1926: 70; AG 1930: 77) During the years 1936 to 1938, a new lighthouse of reinforced concrete was constructed on Mary Island at an expense of \$54,792. (AG 1937: 31; AG 1938: 23; ARSC 1938: 136)

Attached to the center of a low, one-story building, a white, square tower displayed a light 76 feet above water or 61 feet above land. The first floor of the building contained engines, air compressors, electric generators for radio beacon transmitters, etc. The basement housed the heating plant, fuel, and supplies. Apparently the original, a frame, one-and-one-half dwelling with swept dormers was near the

light and fog-signal building; the other dwelling was probably destroyed. Other structures included a boat-house, tramway, cisterns, and at least three smaller buildings; all were linked with concrete walks. (ARSC 1938: 136; Jefferey 1955: 133; Deane 1938: 23; USCG October 7, 1974: p.c.)

The light station is located on 198 acres of lighthouse reservation; it was unmanned and reduced to a minor light in April 1969. At that time, the radio beacon was discontinued. (Thrasher 1974: 12-13).



The newer structure at Mary Island in 1965.



Lincoln Rock Light Station

Located at the westerly end of Clarence Strait, 54 miles northwest of Ketchikan, Lincoln Rock Light Station proved to be one of the more difficult to build in Alaska. The construction project was awarded to the only bidder in March 1902. Despite losing his lumber, a small steamer and barge while en route to the site, the contractor finally landed on Lincoln Rock in May 1902. By August, however, construction was stopped due to storms.

Then, in June 1903, the contract was annulled when it was discovered that the contractor persisted in using substandard materials. Abandoning the contract method, the Lighthouse Board hired its own laborers. The project was finally completed in late 1903. On December 1, 1903, the station was lighted for the first time. (AR 1902: 241; AR October 15, 1903: 88; AR 1904: 171)

From the southerly end of a square, two-story wooden dwelling built on a concrete pier, a square tower displayed a fourth-order, fixed white light, 57.75 feet above water or about 41 feet above land. The fog signal, a Daboll trumpet, was located on the northerly end of the westerly side of the main structure. Northerly of the lighthouse was an oilhouse and derrick. As the rock was submerged at high water, a cutwater was placed on the south side of the pier to split sea waves and thus prevent their breaking against the lighthouse. (AR 1904: 171; AR 1905: 176-77; LL 1908: 103; LL 1909: 44-45)



Opposite page: The original Lincoln Rock Lighthouse, circa: 1905. Left: A fixed light was reconstructed at the original site, circa: 1944.

The cutwater never proved effective. Shortly after the station was commissioned, part of the landing platform was carried away by high seas. (AR 1905: 173) On November 28, 1909, and again, on April 14, 1910, the lighthouse itself was severely damaged by storms.

After establishing a temporary light, the lighthouse keepers evacuated Lincoln Rock on the Army Steamer Peterson. (CDA December 1, 1909: AR 1910: 50; Thrasher 1974: 12-13)

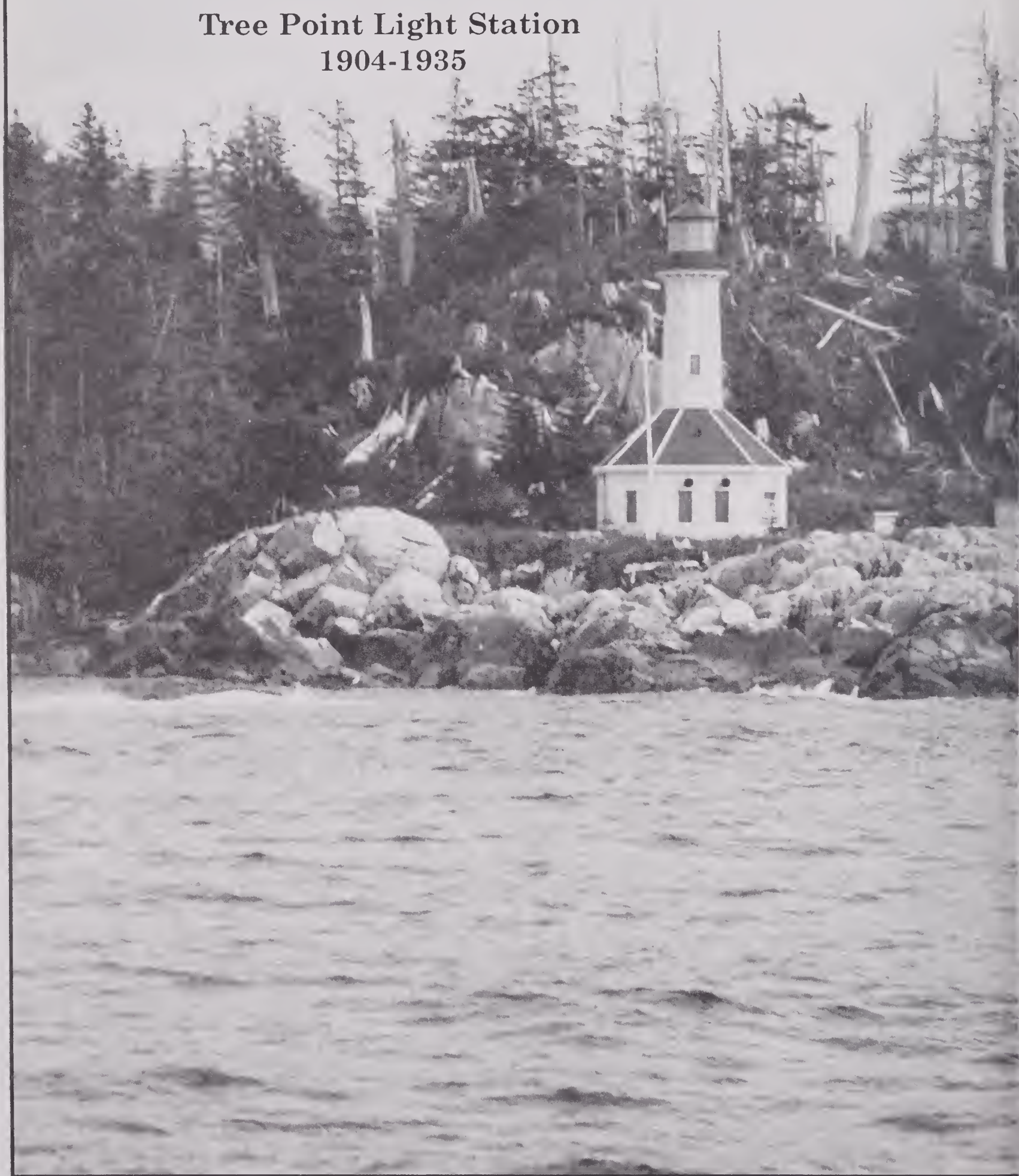
In March 1911, Congress authorized the reconstruction of Lincoln Rock Light Station at a cost not to exceed \$25,000. The Light House Board chose to establish a fog signal station on a small islet (56° 03' 24" N / 132° 41' 48") about 440 yards from the former lighthouse site, which was marked by an acetylene light. Completed at an expense of \$24,774, the newly manned station was commissioned on October 10, 1911. (AR 1910: 50; AR 1911: 60; AR 1915: 54; LL 1916: 120-21; Holland 1972: 191)

Lincoln Rock Light Station was permanently unmanned and disestablished in March 1968.



New site of Lincoln Rock Lighthouse's fog signal station in 1947.

**Tree Point Light Station
1904-1935**





Tree Point Light Station

Marking the entrance to Revillagigedo Channel, Tree Point Light Station was approved for construction by the Board of Lighthouses on April 24, 1903. The project was undertaken by hired labor and completed on April 30, 1904, when the light was first displayed.

Two weeks later, however, a "slight fire" damaged the station. Within a short time, repairs were made and the station was again placed in operation. (AR 1904: 170; AR October 15, 1903: 88)

Tree Point Light Station, 40 miles south of Ketchikan, was equipped with a third-order, fixed-white light with a red sector covering the Lord Rocks and a first-class, oilburning, fog-signal air siren. Rising from the center of the fog-signal and keepers' building was a one-story, wooden, octagonal structure with a pyramidal roof. The octagonal tower displayed a light 86.5 feet above sea level or about 56.5 feet above land.



The new Tree Point Light Station nears completion in 1935.

Below: The station's small boat is lowered to the water. Bottom: Tree Point Light in the 1950s.



Two oilhouses were situated 50 and 100 feet, respectively, easterly of the light and fog-signal building. All structures were white with brown roofs. The cylindrical lantern was gray with a black roof. (LL 1908: 100; LL 1909: 44-45; LL 1916: 118; AR 1905: 176=77)

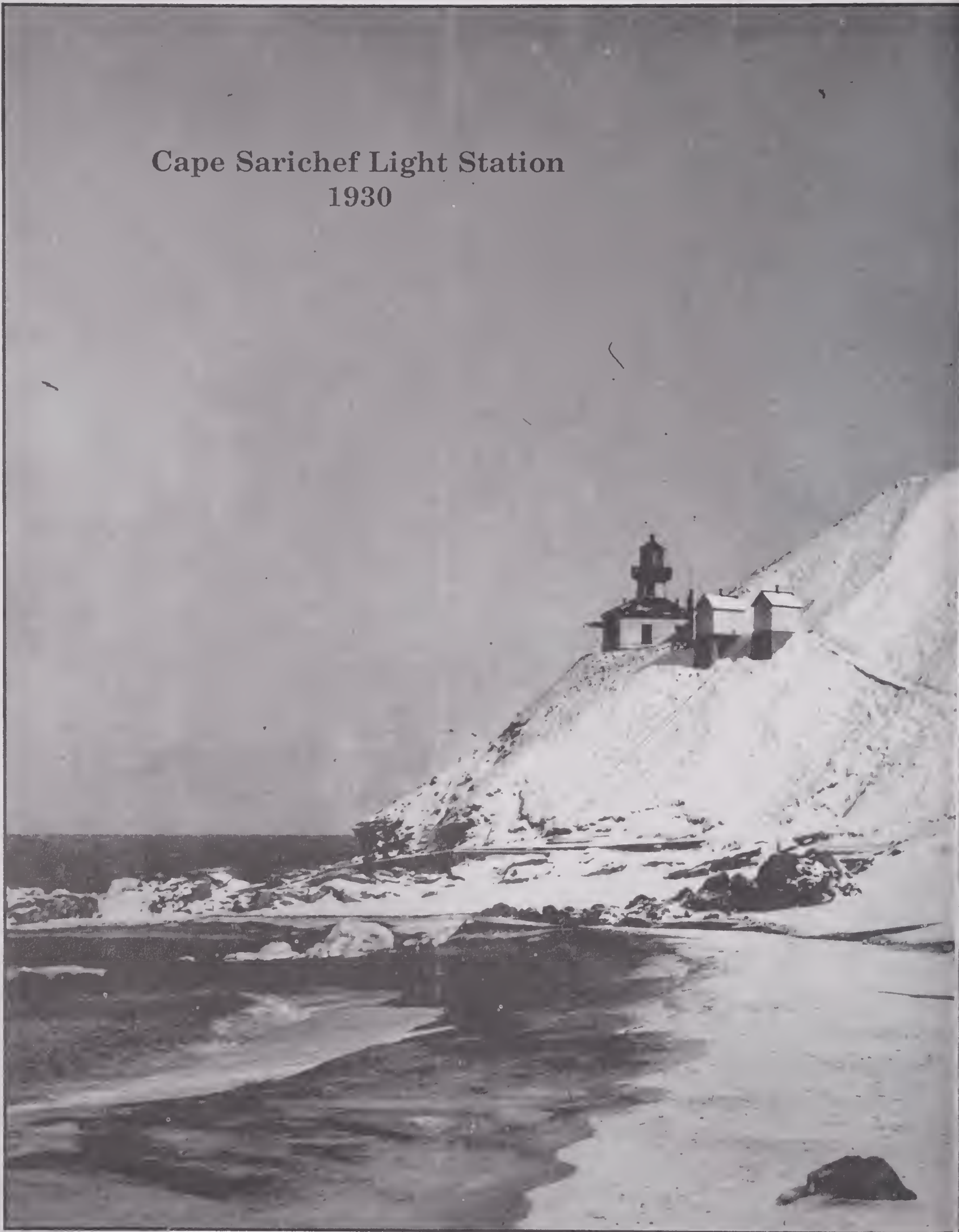
In the early 1930s, the Bureau of Lighthouses authorized reconstruction of the station with reinforced concrete. (AG 1934: 27) Work began in 1933 and was completed in 1935. The entire project cost \$84,648. The light and fog-signal building itself cost \$47,481. (AR 1934: 115; Short and Stanley-Brown : 647)

Attached to the one-story, fog-signal building, a square tower (13' X 13') displayed a light 58 feet above land. The basement (18' X 36') of the structure contained a 5,000 gallon fuel-oil tank, a coal storage bin, air receivers, and a water heating boiler. The first floor housed machinery and a small office room. The first floor of the tower was used for battery storage; the second and fourth stories, for storage. The third floor housed the diaphone operating room. (ARSC 1935: 129; USCG October 7, 1974: p.c.)

In 1969, the station was disestablished and reduced to a minor light. (Thrasher 1974:13) It is located on 1,207 acres of a lighthouse reservation.



Cape Sarichef Light Station
1930







Cape Sarichef Light Station

The most westerly lighthouse in North America, Cape Sarichef Light Station is located on the northwestern coast of Unimak Island, 78 miles north of Dutch Harbor, marking the northern entrance to Unimak Pass. Like Scotch Cap, Cape Sarichef Lighthouse was once noted the most isolated in America, especially from December 1 to March 1, when the light was shut down because the Bering Sea was frozen. (Willoughby 1946: 174; USCG 1957: 1) Isolation was tough on some; others, such as Keeper Ted Pedersen, (1929-1935) longed for the solitude. "it was peaceful. You were part of the elements and lived from day to day. I was a free human being," he said.

Often during the winter months, when the seas were too rough to land a boat on the Bering Sea side of Unimak Island, the mail was diverted to Scotch Cap Light Station on the opposite side of the island. According to Pedersen, once the mail didn't arrive for five months.

Bids for construction of Cape Sarichef lighthouse were called on March 22, 1902. All were rejected as too excessive. (AR 1902: 241) In early 1903, hired labor began construction and completed the project on October 1, 1903. Because the lantern had not arrived in time, construction workers returned to Cape Sarichef in May 1904 and installed the light. Completed at a cost of \$80,000, the station was first lighted on July 1, 1904. (AR October 15, 1903: 88; AR 1904: 171; Gibbs 1955: 218; Holland 1972: 192)

Facilities at Cape Sarichef included a third-order, fixed white light (2,300 c.p.) and a first-class, automatic fog-signal siren, operated by compressed air. The cylindrical lantern, 35 feet above land, was placed on an octagonal tower, rising from the apex of the pyramidal roof of a one-story, octagonal fog-signal building; the light was shown 126.5 feet above sea level. Two oilhouses, three dwellings, and a barn were located southeasterly of the lighthouse. During the 1930s, the barn was used for the station surfboat.



Keeper Ed Moore gives assistant keeper Ted Pedersen a haircut after Ted returned from a year's leave with pay in 1930. When 63-year-old Moore retired after 20 years of service in 1933, Pedersen took over as keeper.

Two of the dwellings were reportedly never occupied, by order of the Lighthouse Inspector, who, upon visiting the station, believed it too isolated for keepers' families. However, there are reports of keepers periodically having their families stay at the light station for short periods of times during the summer months.

A boathouse, engine house, and derrick were located on a reef southwesterly of the lighthouse. All were damaged by storms in 1904 and subsequently replaced. Most structures at Cape Sarichef were wooden and painted white with brown roofs. (LL 1908: 115; LL 1909: 46-47; Willoughby 1946: 175; AR 1905: 173, 176-77)

In September 1934, the keeper was hunting, he found two men wan-

dering on the island; their schooner, the *Gladiator*, had grounded the night before, 18 miles from Cape Sarichef Light. When a lifeboat from the Coast Guard Cutter *Chelan* attempted to reach the grounded ship to pick up the vessel's skipper, the lifeboat capsized. The Coast Guardsmen and three men from the *Gladiator* spent nine days at the light station until the weather subsided enough for the *Chelan* to get close enough to pick up the stranded men.

Following the Scotch Cap Light Station disaster of 1946, the U.S. Coast Guard completed plans to construct a new lighthouse of reinforced concrete at Cape Sarichef. Relighted in 1950, the new station was located on the edge of a bluff (54. 36' 00" N / 164, 55' 42' W). The tower, on a one-story structure, displayed a flashing electric white light (9,000 c.p.). 177 feet above water. Station facilities also included a radio beacon and fog-signal siren. Directly behind the lighthouse was a large, one-story, oblong structure with a flat roof. A two-story building was attached. A Quonset hut, cisterns, and several other buildings were located nearby. Concrete walks linked the various structures. (Snow 1955: 277; USGS 1957: 1; Holland 1972: 192; USCG January 15, 1974: p.c.) Only the foundations of the original keepers' dwellings remained visible in 1966.

On June 15, 1979, the "new" light station was unmanned and discontinued. It was replaced by New Cape Sarichef Light, erected on a skeleton steel tower adjacent to the old lighthouse. During the same year, the property was turned over to the U.S. Fish and Wildlife Service.

Located on 1,845 acres of a lighthouse reservation, the Cape Sarichef Light Station presently serves as a National Weather Service forecasting center.



Fairway Island Light Station, 1944.

Fairway Island Light Station

Recommended by the Thirteenth Lighthouse District inspector and engineer in 1900 as the site for a lighthouse, Fairway Island is just inside the easterly entrance to Peril Strait, 28 miles northeast of Sitka. The station was constructed during the summer of 1904 and lighted on September 1. The minor light station marked a turning point in Peril Strait.

In 1904, Fairway Island Light Station was one of four minor lighthouses established in Alaska. Forty-one feet above mean high water, the fixed white light was displayed from a black, hexagonal, lens-lantern on a six-foot, white, wooden, hexagonal tower. A one-and-one-half story wooden dwelling was located 40 feet southerly of the light tower. Eighty feet westerly of the tower was a rectangular, wooden boathouse. Both buildings were painted white with brown roofs. (LL 1908: 113; LL 1909: 46-47)

Unlike most in Alaska, the light station was apparently disestablished sometime between the years 1917 and 1925, during which time an effective system of unmanned stake lights was established in Peril Strait. The station itself was later replaced by a minor light. The former station was located on 298 acres of a lighthouse reservation, withdrawn in 1901 by order of President Theodore Roosevelt. (USCP 1917: 208; USCP 1925: 305)

The dwelling at Fairway Island Light Station, 1915.



Point Sherman Light Station

The third lighthouse encountered by seafarers traveling from Juneau to Skagway, Point Sherman Light Station, located 38 miles north of Juneau, was the last minor station established in Alaska. It was constructed during the summer of 1904 and was first lighted on October 18, 1904. (AR 1904: 171; AR 1905: 173)

Similar to that on Fairway Island, the Point Sherman fixed-white light (230 c.p.) was displayed 42 feet above water from a black hexagonal lantern on a white, hexagonal, wooden tower, six feet in height. Eastward of the light tower was a one-and-one-half story frame building and a boathouse, both structures were painted white with brown roofs. A fence, about 600 feet in length, surrounded the dwelling. (LL 1908: 108; LL 1909: 46-47)

Disestablished and reduced to a minor light before 1917, the lighthouse was not destroyed. Apparently the light itself was abandoned by 1932. The only structure remaining at the site was an "unused lighthouse." (USCP 1917: 152; 1925: 246; 1932: 318; 1943: 311; 1952: 352) The roof of the keeper's dwelling is reportedly caved in.



Point Sherman Light Station, June 1929.

**Guard Islands Light Station
October 1966**







Guard Islands Light Station. (date unknown)

Guard Islands Light Station

Located on the largest of two islands nine miles north of Ketchikan, Guard Islands Light Station marked the easterly entrance to Tongass Narrows. Hired labor began constructing the station in the summer of 1903. Before winter halted further construction in January 1904, the clearing, grading and excavating of the lighthouse site was completed. Resuming work in June 1904, the laborers soon completed the project, lighting the station on September 15, 1904, nearly two weeks before expectations. (AR October 15, 1903: 88; AR 1904: 170; AR 1905: 173)

Unlike most in Alaska, the early Guard Islands Light Station was classified minor. A fixed-white, lens lantern light was displayed from a white, square, wooden tower; it was shown 34 feet above land and 79 feet above water. The only keeper's house, a one-and-one-half story frame building, was located 100 feet north-easterly of the tower. An oilhouse was erected 50 feet easterly of the tower; and a boathouse, 100 feet northerly. (LL 1908: 102; LL 1909: 44-45)

An unusual feature of the early light station was the fog-signal apparatus. It was simply a bell suspended

Guard Islands Light-house in 1988.





The surf boat at Guard Islands Lighthouse.

from the northerly face of the light tower, struck by machinery every 20 seconds. (LL 1908: 102) Congress authorized lighthouse improvements in March 1922, with a reinforced concrete fog-signal building (20' X 35') thereby replacing the old clock mechanism with an air diaphone fog signal, which was first operated on February 25, 1924. At the same time, the original light tower was replaced by a square tower (10' x 10') projecting 30 feet above the roof of the fog-signal building. Another dwelling was also constructed, thereby providing for two keepers with families at the station. The project was completed at an expense of \$46,586. (AG 1923: 56; AR 1923: 46; AG 1924: 29-30; AR 1924: 31; USCG January 15, 1974: p.c.)

In 1938-39, the station was again improved by the installation of radio telephones and a radio beacon monitoring system. (AG 1939: 37). The radio beacon system was modified in 1956 for both marine and aircraft navigation. (AG 1956: 17) In 1969, due to the rising costs of maintenance and new technological advances, the light station was automated. Nothing remains on the 10.5 acres lighthouse reservation, except the actual lighthouse and old fog signal building.

Guard Islands Keeper George West (left) and wife, Alma, (right) and assistant keeper Mr. Waltenberg, and his wife in the dining room at Guard Islands Lighthouse.





Point Retreat Light Station

Point Retreat Light Station was one of four minor light stations constructed in Alaska in 1904. It's located on the northerly point of Mansfield Peninsula, Admiralty Island, 17 miles northwest of Juneau. Construction began in early 1904; it ended on September 15, when the station was first lighted. (AR 1904: 171; AR 1905: 173)

Of the lens-lantern order, the fixed-white light was displayed at least 19 feet above mean high water, from a black hexagonal lantern, set upon a six-foot, wooden, hexagonal tower. About 50 feet southerly of the tower was a white, one-and-one-half story, frame dwelling with a brown roof. Apparently there were two dwellings, but one burned shortly after construction. Eastward of the keepers' dwelling was a rectangular, wooden boathouse. The station did not have a fog-signal. (LL 1908: 107; LL 1909: 46-47; Deane 1938: 23)

The lighthouse was unmanned and reduced to a minor light before 1917, but it was reestablished and upgraded in 1923-24, with the construction of a light and fog-signal building (34' X 20') of reinforced concrete. A square tower, rising 25 feet from the center of the roof of the fog-signal building, displayed a light 63 feet above water.

Other facilities included: two one-and-one-half story, wooden dwellings for two resident keepers with families; a landing wharf with derrick and hoist; cisterns in solid rock; a boathouse, etc. The new station was established at a cost of \$58,242. (USCP 1917: 160; AR 1923: 46; AR 1924: 31; AG 1924: 29; USCG January 15, 1974: p.c.) In 1966, one of the keeper's quarters was razed to make room for a helicopter pad.

Later improved with a radio beacon, Point Retreat Light Station functioned continuously until 1973, when it was again unmanned and downgraded to a minor light. A foghorn is powered by a set of batteries requiring only periodical service. (USCP 1952: 350; Thrasher 1974: 13) The station is located on 1,505 acres of a lighthouse reservation.



Opposite page: Workers nearly complete construction of Point Retreat Light Station in 1904. Left: Keeper Charles E. McLeod poses with his 2-year-old son, Charles, at the light station in 1928. McLeod was keeper from 1926 to 1930, when he died. Below: The boathouse at Point Retreat.



Point Retreat Lighthouse as it looked in 1961.



Eldred Rock Light Station

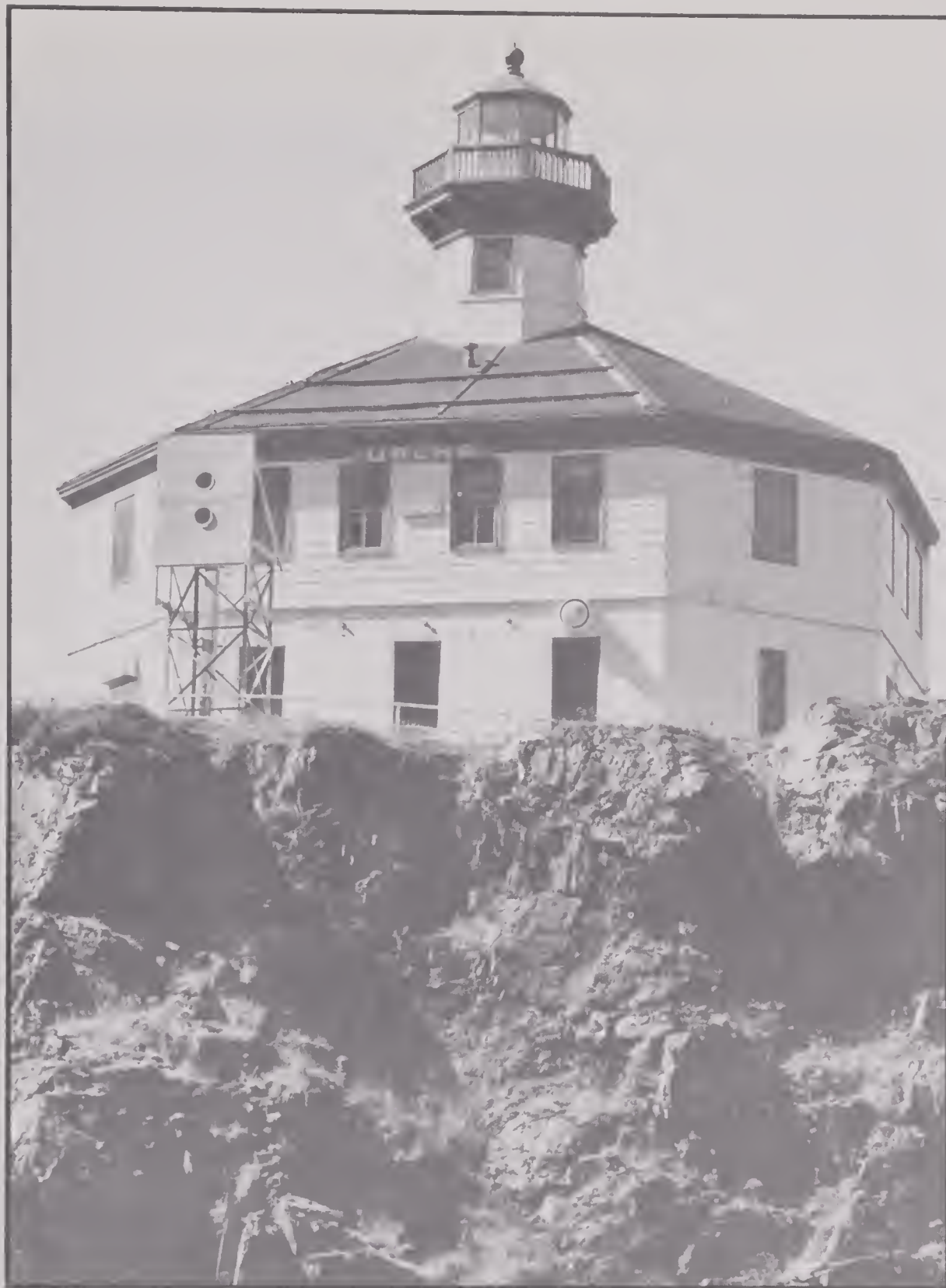
Although Eldred Rock Light Station was the last major light station commissioned in Alaska during the surge in lighthouse construction of 1902-06, it is the oldest original structure still standing in Alaska.

Eldred Rock Light Station is located on the southeasterly part of Eldred Rock in Lynn Canal, about 50 miles north of Juneau. Adopting plans and specifications in May 1905, the Lighthouse Board immediately ordered construction by hired labor. The station was to be completed by November 1, 1905. (AR 1905: 173) However, weather conditions hampered work, such that the station was not completed and lighted until June 1, 1906. (AR 1906: 146)

The fourth-order light (2,100 c.p.), 91 feet above mean high water, was shown from an octagonal, gray lantern and tower, which projected from the apex of a pyramidal-roofed, two-story, octagonal fog-signal building. The lower story of the building was concrete; the upper, wood.



Eldred Rock Light Station in the 1920s



Opposite page: Eldred Rock keeper Sam Olsen and his cat take a boat ride on October 5, 1927. Left: The light station as it looked in August 1988. Eldred Rock Light Station is the oldest original lighthouse structure in Alaska.

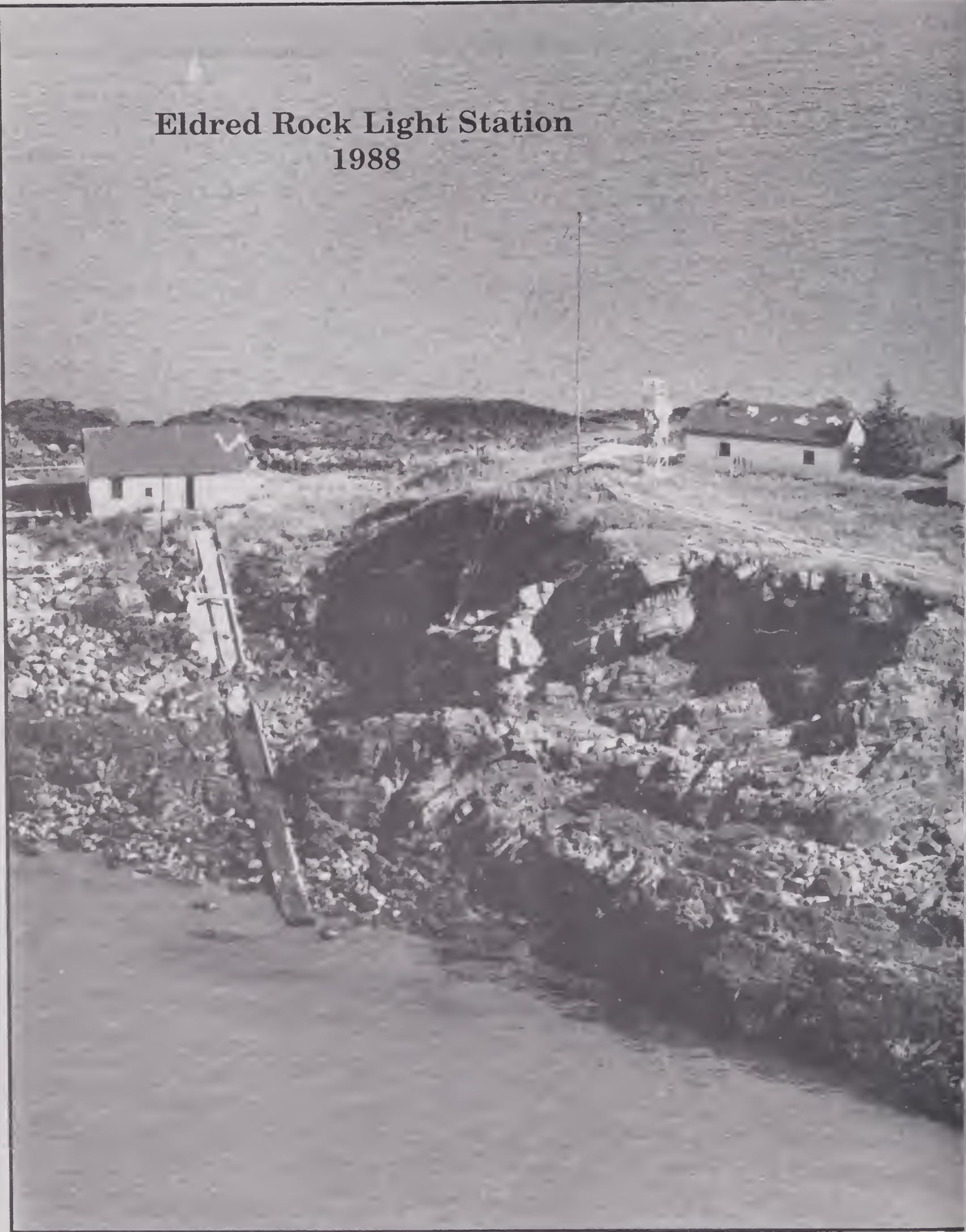
The height of the structure was 56 feet; its diameter, 52 feet. The fog signal was a first-class, automatic siren. About 150 feet northerly of the lighthouse stood a white, wooden boathouse, derrick, and tramway. (LL 1908: 108; LL 1909: 46=47; USCG January 15, 1974: p.c.)

Unlike others in Alaska, Eldred Rock Light Station was never rebuilt. (Holland 1972: 191). However, improvements were made throughout the years. In 1939, a radio telephone was installed. (AG 1939: 37)

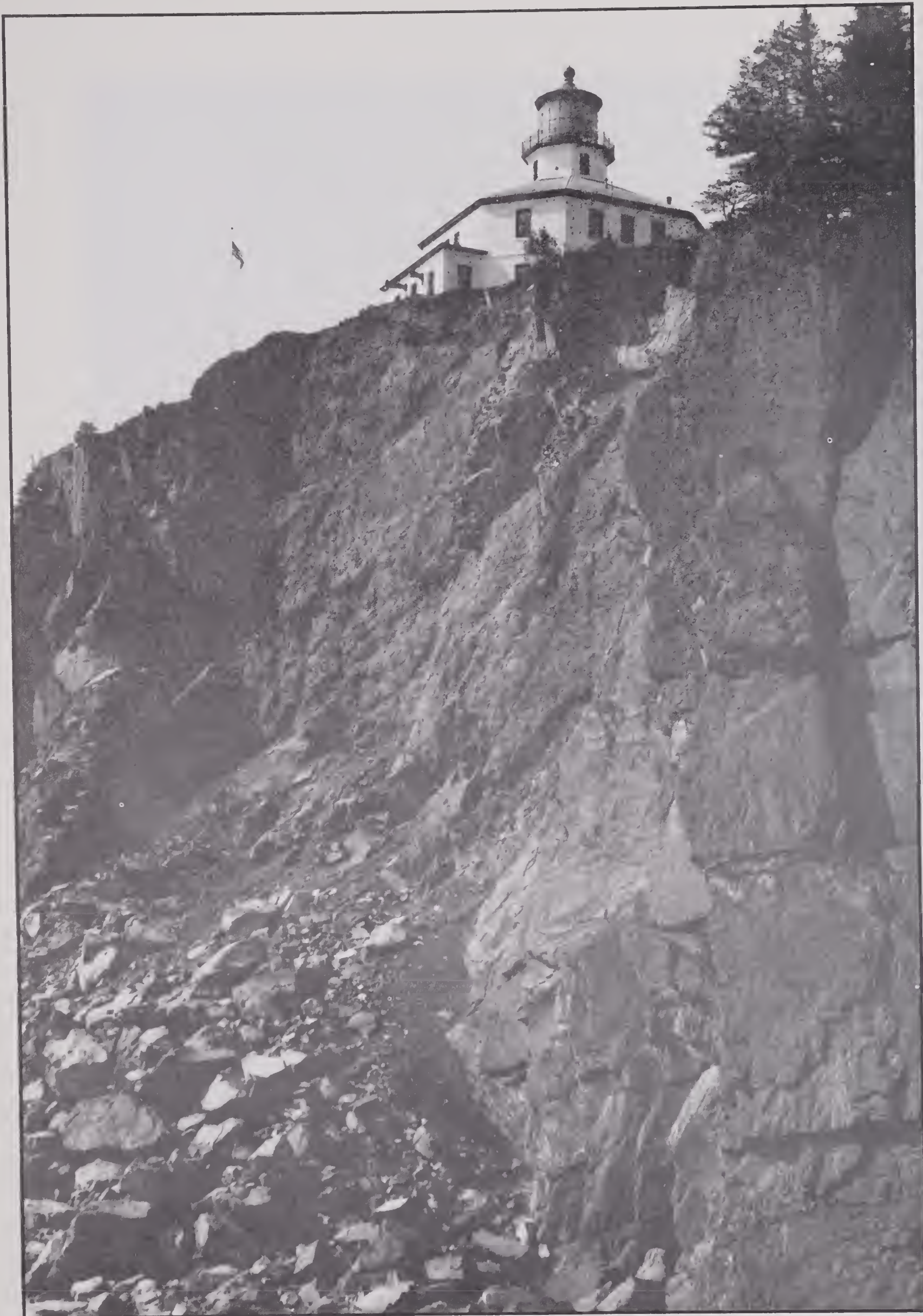
In 1973, the Eldred Rock Light Station was unmanned and downgraded to a minor light. At that time, the light's sound signal and radio beacon were discontinued. The light characteristic was changed to a flashing white light every six seconds. (USCG January 15, 1974: p.c.) The station is located on 2.4 acres of a lighthouse reservation.

When the station was unmanned, the Chilkat Valley News in Haines wrote, "Haines has been made more isolated than ever before from its nearest neighbor to the south. A cold, lifeless lighthouse stands guard amidst the whims of wind and weather in Lynn Canal. The most important facet of this facility is gone: the human observer."

**Eldred Rock Light Station
1988**









Opposite page: Erosion approaches the original Cape Hinchinbrook, 1933. Left: Construction of the new lighthouse is nearly complete in 1934.

Cape Hinchinbrook Light Station

Cape Hinchinbrook Light Station marks the entrance to Prince William Sound, 55 miles south of Valdez. It is the only principal light in Southcentral Alaska waters. Recognized as early as 1900 as the site for a lighthouse, it was not until 1906, when steamer Oregon was wrecked on Hinchinbrook Island, that Congress authorized construction of the light station.

Although the Act of 1906 stipulated \$125,000 for the light station, Congress refused to appropriate the full amount at once. Instead, \$25,000 was appropriated in 1906, \$50,000 in 1907, and the final sum in 1908. Thus, construction did not begin until April 1909 by contractor A. B. Lewis of Standard Building Company, Seattle. (AR 1906: 146; AR 1909: 30; CDA September 3, 1909: 1; CDA October 18, 1910: 1; CDA May 13, 1910: 1) Residents of Cordova believed that the light station would be "the finest equipped and most expensive light on the Alaska coast." (CDA September 10, 1909: 5)

Construction began with about 40 men immediately after Congress appropriated the total amount for the lighthouse, but work proceeded slowly. Rough weather interfered with communication and transportation facilities. A scow filled with about \$12,000 worth of materials was washed away by a storm; it was subsequently discovered by two Indians, Willie Johnson and Johnny Paul, on the beach of Montague Island and recovered by officials. (CDA September 11, 1909: 8)

By September 1909, work was called to a halt because of the late season. Only the tramway from the wharf to the structures and the concrete walls of the main structures to the first story were completed. (AR 1910: 50; CDA June 14, 1910: 1) A temporary fixed-white light, 192 feet above water, was established on the second floor of the building for the winter. Because the light required attention every eight days, one keeper and his wife remained at the site. (CDA September 13, 1909: 1)

In June 1910, about 30 men returned to Cape Hinchinbrook and began construction. (AR 1910: 50) Work progressed swiftly, prompting C. W. Leick, chief draughtsman of lighthouse construction in Alaska, to observe, "In all his experience, he never saw more substantial preparations and arrangements for the best of service than is going on at Cape Hinchinbrook." (CDA September 10, 1909: 5) The project was finally completed and the station lighted November 15, 1910. Total expenditures amounted to \$100,323 considerably less than expected. (AR 1911: 54) The product was, as one newspaper reported, a "practically indestructible" lighthouse. (CDA May 13, 1910: 1)

The light and fog-signal building was a two-story, octagonal structure (52 feet in diameter) of reinforced concrete with a pyramidal frame roof covered with asbestos shingles. It was 47 feet, 3 inches high. (CDA September 7, 1910: 1) An octagonal tower of concrete rose above the building's center to a



Cape Hinchinbrook's boathouse and launch.

height of about seven feet; it supported a cast-iron deck and a first-order vertical bar lantern. (AR 1913: 94) The lantern was 12 feet in diameter and 18 feet in height, constructed principally of plate glass. It flashed a white light with an intensity of about 20,000 candlepower, visible at a distance of 20 to 25 miles. Although the light was technically a third order, improvements reportedly gave it the same power as a first-order. (CDA September 10, 1909: 5) The light was displayed 235 feet above sea level. (CDA September 10, 1909: 5; CDA September 7, 1910: 1; LL 1916: 138-9)

From one side of the main structure, part of the fog-signal building extended as a bay about eight feet. It was a one-story concrete structure without shingles. (AR 1913: 94) The fog signal or air view was operated by two coal oil engines and an air compressor. In addition to fog-signal apparatus, the lower floor of the main structure contained modern baths and lavatories, an engine room, workshop, store rooms, and a tank room for storing oil. The second floor contained living quarters for four keepers. Included were four bedrooms, sitting and dining room, kitchen and pantry. Considered "thoroughly modern in every respect," the entire building was heated by a hot water plant. A concrete cistern with the capacity of 15,000 gallons of water was located underground to prevent freezing in winter. (CDA September 10, 1909: 5; Holland 1974: 193)

Other features of the station included a carpenter shop and storehouse, engine houses, boathouse, and oilhouse, all of which were connected by concrete walks and tramway (AR 1913: 94) The oilhouse, about 40 feet from the lighthouse, was a fire-proof structure (12' x 30') in which paints and the main oil supply were stored. The carpenter shop and storehouse contained a complete set of carpenter and machinist tools, as well as an adequate supply of lumber and necessary materials. At the foot of the cliff was a large derrick for hoisting boats and supplies. A tramway led from the mouth of Lennon Creek to the lighthouse. Later, in 1931, a six-mile trail was blazed by the U.S. Forest Service between the light station and the protected waters of English Bay at Port Etches, where emergency boat landings could be made. (CDA September 10, 1909: 5; AR 1930: 41; AW March 27, 1931: AR 1931: 21, 25)

Cape Hinchinbrook Light Station provided invaluable service to commerce in Prince William Sound. Fishermen, steamship lines, barges loaded with ore from the world's largest copper mines at Kennecott, and ships bearing oil from Katalla, were all aided by the new lighthouse. This was no less true for officials of the Lighthouse Bureau. In 1912, the lighthouse tender *Armeria* struck a submerged and uncharted rock off Cape Hinchinbrook while delivering coal to the station. It was the keepers who rescued the mariners from the totally wrecked tender. (AR 1913: 1920) Due to the significant rise in marine commerce about Prince William Sound, and in consideration of the prevalent dense fog about Cape Hinchinbrook, a more powerful fog signal (diaphone) was installed at the station in 1922-23. (AR 1923: 46; AR 1922: 32)

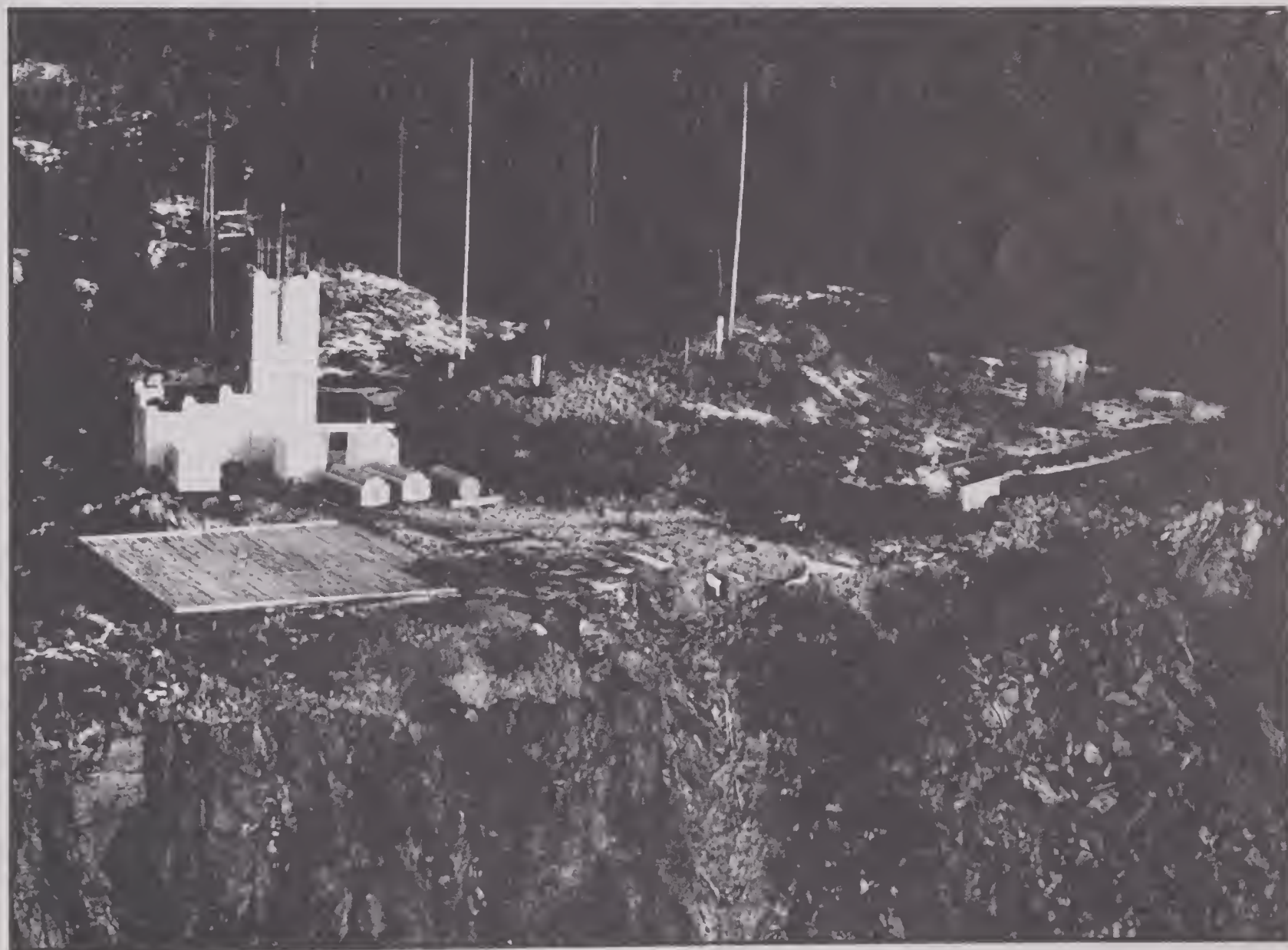
However, much as people may have believed, in 1910, that the light station was indestructible,

events soon proved different. Due to earthquakes in 1927 and 1928, the 180-foot cliff on which the lighthouse was located progressively caved in. The Lighthouse Bureau decided to build a new lighthouse at another location on solid rock. The former lighthouse was considered to be of "obsolete design" and its lack of reinforced concrete prevented moving to another site. In 1931, when Congress authorized reconstruction of the light station with an appropriation of \$30,000, the construction project began immediately. (AW March 27, 1931: 3; AR 1931: 1, 35; AG 1931: 90) The project was completed in 1934, at a cost of \$91,793. The new lighthouse was about 130 feet from the old site. (Snow 1955: 276; AR 1931: 21, 35; ARSC 1934: 115)

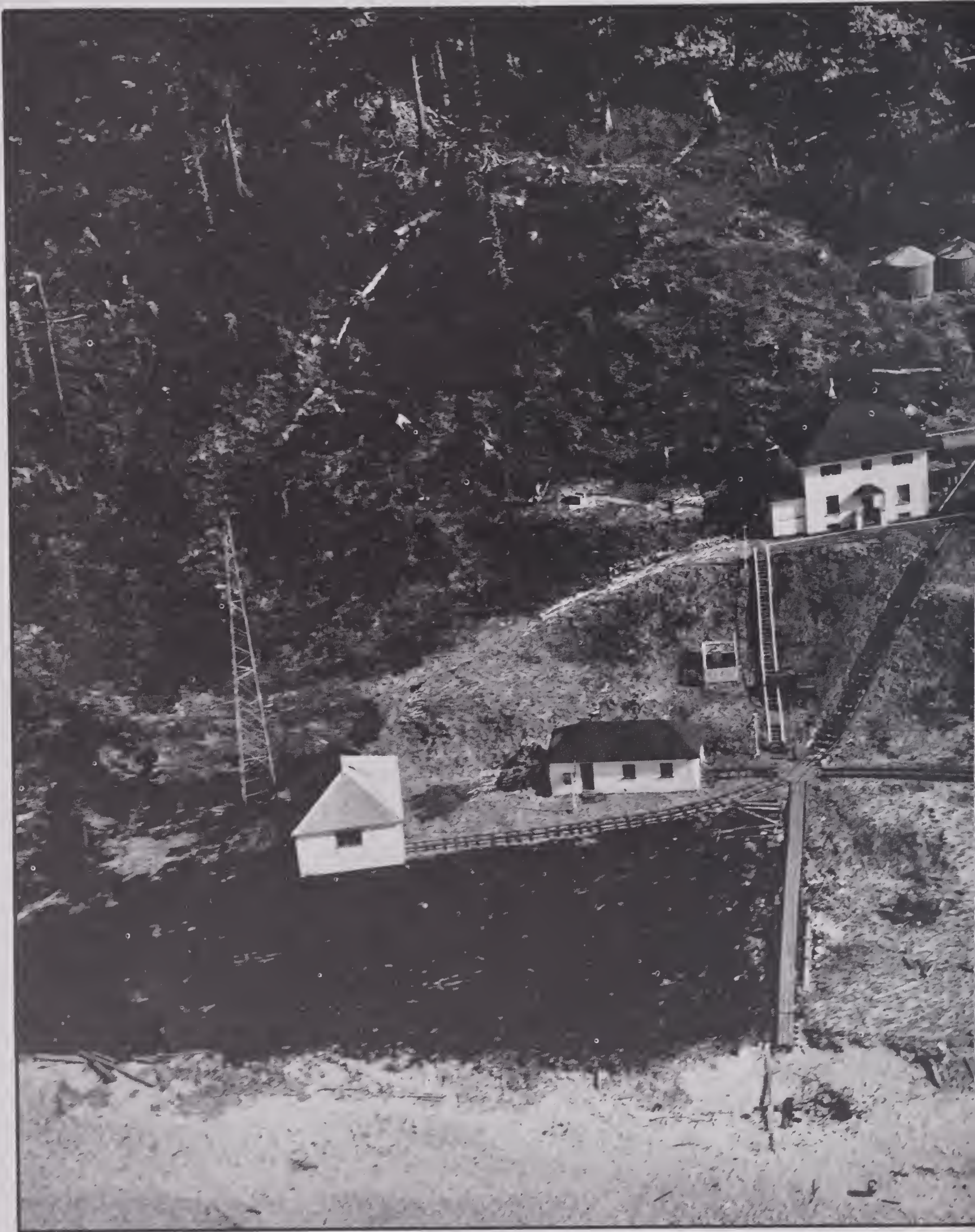
Located on solid rock, the new light and fog-signal building, occupying about 1,722 square feet of ground, was a one-story, reinforced concrete structure (44' X 54'), finished with Medusa paint. The square tower projected 67 feet from a corner of the structure. Using the lens and lantern of the old lighthouse, the original light's intensity was maintained at 200,000 candlepower.

The original fog-horn apparatus was replaced with two-tone diaphones. Accommodations were provided for three keepers without families. Fuel tanks, radio tower, several one-story buildings surrounded the lighthouse. A tramway connected the main structure with the storage house. (AR 1931: 35; AG 1934: 27; AC 1939: 37; ARSC 1939: 130; Gibbs 1955: 212; Snow 1955: 276; USCG January 15, 1974: p.c.) .

The station includes 5,000 acres of a lighthouse reservation. The station was unmanned in the summer of 1974. (USCG January 15, 1974: p.c.; USCP 1954: 99)



The lighthouse as it looked in 1988.





Cape St. Elias Light Station
March 1967



Cape St. Elias Light Station

Subsequent to being named by Vitus Bering in July 1714, Mount St. Elias has long played an important role in the history of Alaska navigation. Yet it was not until the late 1900s that the Lighthouse Board seriously applied to Congress for an appropriation to construct the Cape St. Elias Light Station, 60 miles southeast of Cordova. In fact, there was no attempt at all to place a minor light near this important landmark, widely regarded as "one of the most dangerous points along the entire coast" until 1912. Then, however, the lighthouse tender *Armeria* was wrecked off Cape Hinchinbrook while en route to install a temporary light buoy. (CDA September 25, 1912: 4) Coinciding in time with increased federal activity in Alaska, particularly the construction of The Alaska Railroad, Congress finally approved a light station at Cape St. Elias and appropriated \$115,000 for the purpose on October 22, 1913. (TCDT December 30, 1915: 3)

Following Congress' approval, there was apparent uncertainty regarding the need for a light station at Cape St. Elias. Some residents of Seattle, for example, petitioned the Department of Commerce not to build the station, arguing instead the need for a lightship about 1.5 miles off the cape to mark the dangerous Southeast Rock. The Department of Commerce rejected the appeal with the view that a lightship would require more maintenance; it did agree to place a gas lighted buoy on the rock. (CDA July 25, 1914: 4)

By 1914, survey work for the light station was completed and a temporary acetylene blinker light was placed on the cape. Construction began in 1915, and by the end of the season, much of the work was completed. (AR 1915: 58; CDA June 23, 1914: 1) With funds nearly exhausted, Cape St. Elias Light Station, known to the keepers as "Big Baldy", was finally lighted on September 16, 1916. (TCDT July 26, 1916: 4; TCDT July 30, 1916: 4; Holland 1972: 193) A 13-ton buoy, equipped with an acetylene blinker and a whistle and submarine signal bell, was anchored on Southeast Rock on May 12, 1916. (TCDT May 20, 1916: 1)

Cape St. Elias Light Station was modern in every aspect and was the pride of the Lighthouse Service. The light was shown 85 feet above water, from a white, square concrete tower (12' x 12' X 55'). (Snow



Opposite page and above: Construction of Cape St. Elias Light Station is underway in July 1916. Left: Ted Pedersen was the third assistant keeper of the light station from 1927 to 1929. He returned for one year as the second assistant in 1937.



1955: 276; USCG January 15, 1974: p.c.) The light and fog-signal apparatus was the latest model, on exhibit at the Panama-Pacific International Exposition at San Francisco before installation at the new station. (TCDT January 6, 1914: 4) The tower extended from the corner of a reinforced concrete, fog-signal building (25' X 36'). Other facilities included a two-story, reinforced concrete keepers' dwelling (30' x 35'); boat and hoist houses; and a storage building. (TCDT January 6, 1916: 4; AR 1916: 55) The U.S. Signal Corps installed a wireless station at the cape and placed it in the charge of the three lighthouse keepers, thereby enabling "the people of Katalla to learn of the approach of a vessel and prepare to meet it." (TCDT June 9, 1916: 1) In October 1927, the station became the second in Alaska to be equipped with radio beacon facilities. (AG 1928: 63; AR 1928: 3)

Never rebuilt, the Cape St. Elias Light Station is situated on 490 acres of a lighthouse reservation. It was unmanned and downgraded to a minor light in the summer of 1974. (USCG January 15, 1974: p.c.)



Cape Spencer Light in the 1970s

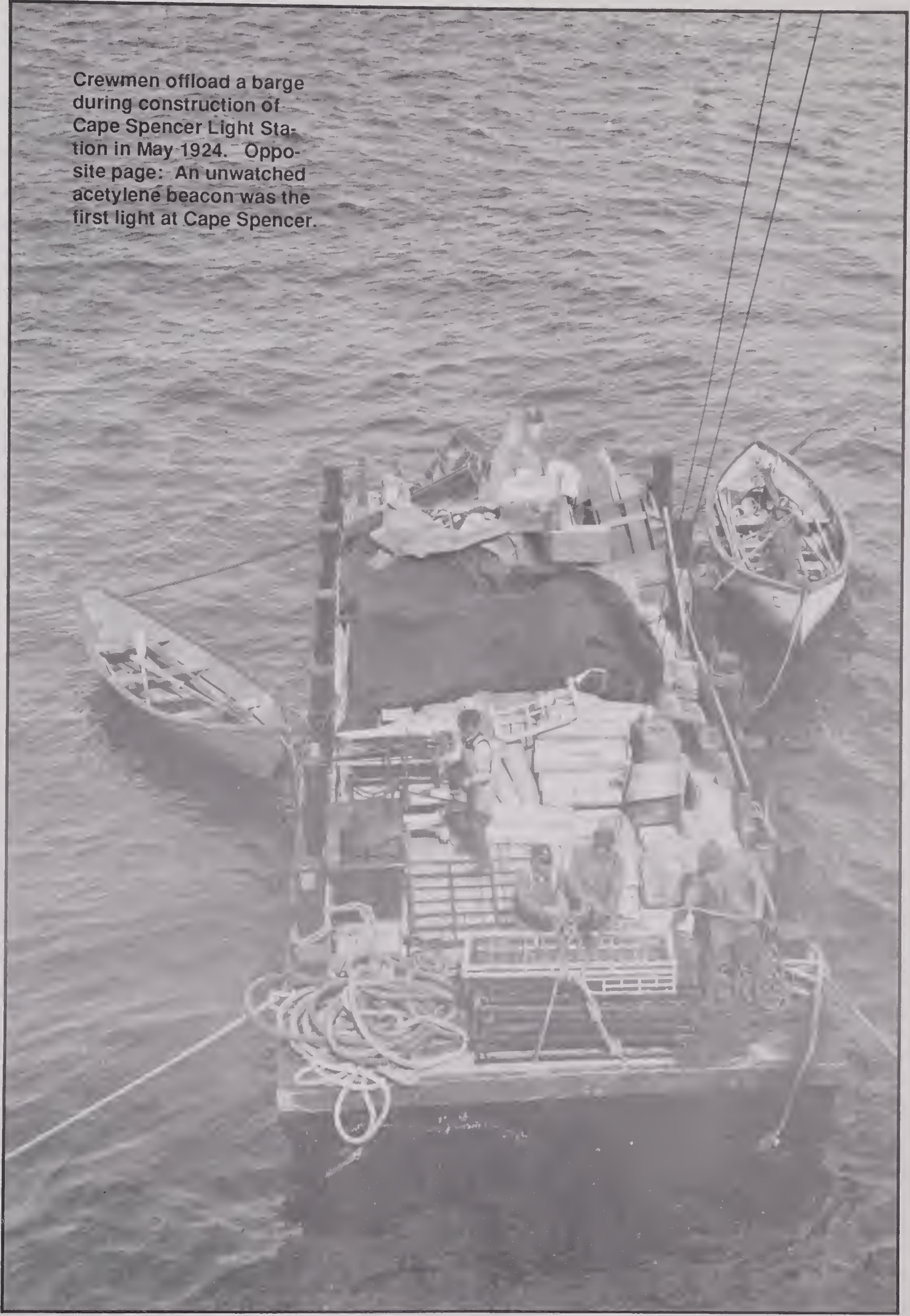
Cape Spencer Light Station

Cape Spencer Light Station is located on a small island at the entrance to Cross Sound, 70 miles west of Juneau. It was first lighted in 1913 with a small unwatched acetylene beacon, 90 feet above water. (USCP 1917: 231; Gibbs 1955: 209-10) Due to repeated recommendations by commercial interests and officers of the Lighthouse Service, beginning as early as 1906, Congress finally authorized funds for construction of the light station in 1923. (AG 1925: 53; AR 1906: 146=47; AR 1924: 36) Construction began in May 1924. The project was essentially completed on December 11, 1925, when the station was first lighted. Total expenditures were \$174,881. (AR 1924: 36; AR 1926: 26-27; CDT May 13, 1925: 5; AR 1927: 25)

Displaying a flashing white light (110,000 c.p.), 105 feet above water, the lighthouse is on the outermost large islet south of the cape. The 14-by-14-foot tower rose 25 feet from the center of the flat roof of a single-story, reinforced concrete, fog-signal building (51' X 62'), which also provided quarters for keepers. Other structures included a steel derrick and gasoline hoist, one small air hoist, boathouse, wharf, blacksmith shop, two hoist houses, a landing platform, and a tramway leading from the fog-signal building to the landing platform. (AR 1927: 25; Gibbs 1955: 209-10; USCG October 7, 1974: p.c.)

On July 14, 1926, a radio beacon with a range of 200 miles or more was first operated at Cape Spencer; it was the first facility of its kind in Alaska. (AR 1927: 3) Although light intensity was later upgraded to 20,000 candlepower, the station has not been subjected to major alterations. The original buildings still stand on 3,840 acres of the station, although the light itself was unmanned in 1974. (USCG 1957: 2; Deane 1938: 28; Holland 1972: 193; USCG January 15, 1974: p.c.)

Crewmen offload a barge during construction of Cape Spencer Light Station in May 1924. Opposite page: An unwatched acetylene beacon was the first light at Cape Spencer.



Cape Decision Light Station

Located on the southwesterly extremity of Kuiu Island, 63 miles south of Sitka, Cape Decision Light Station was the last established in Alaska by the Lighthouse Bureau. With a view to commerce resulting from large numbers of salmon canneries, herring salteries, and reduction plants on the coasts of Chatham Strait, Sumner Strait, and Prince of Wales Island, the Lighthouse Bureau seriously pressed for the new station in the late 1920s. The bureau argued that larger vessels were plying the Inside Passage and could not pass through Wrangell Narrows. Most vessels were thus forced to make a detour near Cape Decision.

Also, an increasing number of deep-sea fishing vessels passed Cape Decision to and from the sea by way of Cape Ommaney. Considering the fog conditions, strong tidal currents, and numerous off-lying rocks, of which mariners were warned by an ineffective acetylene light on Spanish Islands, it was imperative that a light station on Cape Decision be constructed. (AR 1925: 37; AR 1928: 42)

With Congress' initial appropriation of \$59,400 in July 1929, construction of the lighthouse began in September. Inadequate funds and weather conditions slowed the work. Not until March 15, 1932, was the project completed and the station lighted. Total cost of the light station was \$158,000. (AG 1929: 65; AR 1929: 39; AR 1930: 4, 30, 40; AW March 27, 1931: 3; AR 1932: 18; Snow 1955: 275)

A civil engineer checks the structure of Cape Decision Lighthouse in 1988.





Left: During the 1930s, all boats and supplies were hoisted to the light station by derrick. Below: The station's two boats and boathouse. Bottom: The boathouse burned on October 11, 1989.



The station provided quarters for three resident keepers. The lighthouse structure was a one-story, reinforced concrete building (46' X 47') with a square tower (12' X 12' X 40') rising from the center of the roof. The flashing electric light (350,000 c.p.) was shown 96 feet above water or 75 feet above land. The station included a first-class fog-signal (two tyfons mounted on the roof) and a Class A radio beacon. (Holland 1972: 193-94; AG 1929: 65; AW March 27, 1931: 3; USCG January 15, 1974: p.c.)

The original structures still remain on 216 acres of the lighthouse reservation. The light was unmanned in 1974. (USCG January 15, 1974: p.c.)

In October 1989, the station's boathouse was destroyed by fire as a result of human error. The fire also damaged some of the station's tram and dock.

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