Chapter 3 Natural and Cultural Resources

Fort Abercrombie State Historic Park must be described in terms of both its physical and historic character. Its physical beauty is unparalleled. Its historic character is unique and irreplaceable.

Physical Character

Fort Abercrombie State Historic Park is located on Kodiak Island in the South Central Region of Alaska, one of the most developed areas for recreation. Kodiak's major industry is fishing providing another element of strong attraction for visitors. Kodiak waters are rich in numerous species of fish and the area has become famous for its excellent sport fishing opportunities. Fort Abercrombie, a World War II military installation, is approximately four miles northeast of the City of Kodiak. The 183-acre site is part of the State Park System and contains the ruins of the Fort Abercrombie coastal defense installation. The location of Fort Abercrombie State Historic Park is illustrated on Figure 1.

Local Climate Information

Kodiak Island has primarily a maritime climate with mild temperature ranges for Alaska. The warm Japanese Current plays a prominent role in producing mild winters and moist, cool summers. Precipitation levels vary widely throughout the year, with June, the driest month, and October the wettest. The average annual temperature is $40.8^{\circ}F$ ($4.8^{\circ}C$). The average annual precipitation is 67.6 inches (171.7 centimeters). Snowfall records average 78.7 inches (199.9 cm) per year (NOAA, 2003). For the majority of the year, the prevailing wind direction is northwesterly. Maximum wind gusts occur during winter months with gusts greater than 58 mph (50 knots).

Geographic Location and Geologic Setting

Situated in the Gulf of Alaska, Kodiak Island is separated from mainland Alaska by Shelikof Strait. Kodiak Island is located 25 miles (40 km) southeast of the Alaska Peninsula, approximately 90 miles (145 km) southwest of the Kenai Peninsula. The town of Kodiak is 252 air miles (405 km) from Anchorage. Approximately 100 miles (161 km) by 50 miles (80 km), Kodiak is comprised of moderately rugged mountains which average 2,000 to 4,000 feet (610 to 1219 meters) in elevation. The "Emerald Isle" has moderately rocky headlands with glacially sculpted valleys.

Geology

Kodiak Island's geologic activity is characterized by areas of intense activity along the boundaries where tectonic plates collide, and are separated or slide past each other. Earthquakes and volcanoes occur frequently at these plate junctures. In Alaska, the Aleutian

Islands and Kodiak are located near a subduction plate boundary approximately 93 miles (150 km) to the southeast. The Pacific Plate is sliding underneath the North American Plate at approximately 2.5 inches or 6 cm per year.

Earthquakes and Tsunamis

The greatest amount of seismic activity is concentrated along the Pacific Rim. Globally, Alaska is the one of the most seismically active regions. Nationally, more earthquakes are prone to occur here than in any other state in the U.S. A magnitude 7 earthquake occurs in Alaska annually. Earthquakes equaling or exceeding a magnitude 8 are recorded in Alaska approximately every 14 years, according the U.S. Geological Survey (USGS). Kodiak and the Aleutian Islands experience many earthquakes or plate ruptures.

Kodiak experienced magnitude 7.0 earthquakes in January 2001, July 2000 and December 1999 with no major damage. Recent Alaskan earthquake information can be obtained from http://www.aeic.alaska.edu.

The March 1964 Great Alaskan Earthquake, the largest ever recorded in North America, had a moment magnitude of 9.2 and epicenter located in Northern Prince William Sound. In Alaska, 115 fatalities were caused directly by this earthquake and 106 fatalities (Sokolowski, 1991) resulted from seismic sea waves known as tsunamis. Widespread vertical and horizontal movement or displacement occurred. Subsidence of the Kodiak Island is estimated at approximately 6 feet or 1.8 meters and the uplift at the southeast coasts is a lower estimate (Gilpin and Carver, 1994).

The Alaska Tsunami Warning Center in Palmer states the accompanying tsunamis were generated by tectonic uplift of the sea floor with localized subaereal and submarine landslides. A series of approximately ten tsunamis reached coastal Alaska and distant areas around the Pacific. Coastal towns of Seward, Valdez, Whittier and Kodiak were impacted by tsunamis. In the City of Kodiak, the tsunami wave height was 20 feet or 6.1 meters. In the greater Kodiak area, the tsunami resulted in eight deaths, 158 houses destroyed, and \$31 million in total damages.

Volcanoes

The Aleutian Islands and the Pacific Rim include many volcanoes and the majority of Alaskan volcanoes are concentrated in the Aleutian arc. After volcanic eruptions occur, ash clouds can drift over large areas many miles from the sources. Alaskan and international air routes, airports, flight operations and motorized vehicles can be affected by diminished visibility and damaged control systems. Since 1945, Alaska has received an average of two significant volcanic eruptions per year. Kodiak Island was impacted by volcanic activity from the 1912 Mt. Katmai/Novarupta, the 1989-90 Mt. Redoubt eruptions, and the recent 2006 Mt. Augustine eruptions.

The June 1912 Mt. Katmai/Novarupta eruption is considered the world's most voluminous 20th century eruption and it is estimated that three cubic miles of magma was ejected as ash. Initially, Mt. Katmai was thought to be the source of the eruption. It was later revealed however, that the Novarupta flank eruption was the actual source. This

60-hour explosive event produced large quantities of ash that blanketed Kodiak and resulted in darkness, sulfur dioxide gas and falling ash dangerous to the local population and harmful to fish and wildlife. The ash measured 12 to 18 inches in thickness. Particles ejected during the eruption known as a "tephra" form prominent layers in the soil profile, and are highly visible in Ft. Abercrombie's soil profile.

Terranes

Portions of Alaska are composed of many fragments of foreign rock known geologically as "terranes" each having a wide range of ages, a distinct geologic character, and a distinct site of origin. When these terranes are added on to the existing continental areas, the term used is "accreted terranes." Alaska has many accreted terranes and Kodiak Island itself is composed of terranes. The Kodiak archipelago has a complex geologic history that includes parts of several terranes along the south-central coast of Alaska and contains a chaotic mixture of broken, jumbled and thrust faulted rock known as "melange" extending up through the Kenai Mountains, Turnagain Arm and to the Wrangell Mountains on mainland Alaska. This terrane is Mesozoic (Cretaceous) and is generally poorly fossiliferous, thinly bedded, and has graded deposits or flysch. These layered rock beds are northeast striking and northwest dipping and are exposed throughout central Kodiak Island. Tertiary shales, muds, conglomerates, sandstones, graywackes and slates can be observed throughout this formation. Ft. Abercrombie's rugged coastline typifies the above described layered shales, slates and greywacke. There is an outcrop of conglomerate near the beach of Lake Gertrude.

Glaciation of Kodiak Island

Except for an area on the southwestern part of the island, the Kodiak archipelago was probably covered by a glacial ice field during the Pleistocene. An ice cap bridged Shelikof Strait and probably connected the Alaska Peninsula during the last glacial maximum, approximately 23,000 and 14,000 years before present (Mann and Peteet, 1994). Glacial advance occurred in a southerly and easterly direction. These glaciers molded the topography as they retreated leaving U-shaped valleys and embayed shorelines. A sparsely glaciated region of the island can be found in central Kodiak Island between Mount Glottof and Koniag Peak.

Soils

On Kodiak Island, soil forming processes are very apparent and are a principally a function of the climate, parent material (bed-rock), volcanic depositions, glaciation, and other factors. After a couple days without rain, it becomes very dusty due in part to the very soft nature of the parent material underneath the soil and to the high amount of volcanic ash still susceptible to soil surface disturbances. Over time, volcanic ash, weathering bedrock, decaying plants and animals, and other factors have formed a thin layer of soils on Kodiak Island. Ft. Abercrombie and much of the northeastern portion of the island are underlain with alternating layers of slate and its softer form, greywacke, some granite, or by glacial till derived from these rocks. These layers are easily observed along the park's sea-cliffs, and have been extensively folded and faulted. Granitic-related materials are also seen in small pockets and bands within the slate and greywacke.

Huge quantities of ash were blown into the air from the eruption of Mt. Novarupta on the Alaska Peninsula in1912, which fell onto northeastern Kodiak Island. The ash averaged about 18 inches deep, killed many animals, fish, and temporarily smothered vegetation. Shortly after the ashfall, rainwater redistributed the material and as a result, vegetation on steeper slopes recovered and continued to grow. Where ash had accumulated in the broad valley bottoms, it took much longer for it to recover. On drying, the ash cracked leaving crevices open for plant growth. In other areas of ash accumulation, such as in depressions that were once marshes, it took many years before vegetation re-established itself.

The ash is of low fertility and is very acidic, making establishment of plants (other than highly adapted native species or those growing in similar conditions) very difficult to grow. If undisturbed, the ash makes a good base material for light construction, such as trails. It can however, erode easily and be slippery when wet. Ft. Abercrombie's soils are predominantly of the Kodiak Series and generally of one texture being a silt loam that is generally wet and acidic. Potential problems to consider are erosion on steep slopes and low soil strength due to liquefaction when moist and vibrated (as in earthquaking), especially when associated with thick ash.

Vegetation

The variety of vegetation and plant communities on Kodiak Island is quite spectacular and provides an unusually attractive array of color, patterns and textures. The mild maritime temperatures and ample rainfall contribute to the abundance of green vegetation that is responsible for Kodiak's other name, "The Emerald Isle". Stunningly beautiful coastal wildflower meadows are a highlight for any visitor in summer. Other lowland vegetation includes grasslands, shrub-lands of willows, dwarf birch and alder, rich wetlands and wet tundra. Alpine tundra covers the ridges and grows above tree line, which varies from about 500 to 1,000 feet.

The Sitka spruce forest that adorns the lower elevations, is relatively young, and only covers the northeast end of Kodiak Island, especially in the vicinity of Monashka Bay and Cape Chiniak. It is not mixed with any other species of trees, which makes it unique in the world. It is a forest on the move and is spreading toward the southwest at a rate of about a mile every hundred years. The low protected valleys of central, eastern, and western Kodiak Island contain balsam poplar (cottonwood) and Kenai birch. An abundance of Sitka alder and a variety of willow species grow on the slopes and riparian habitats. The southern two thirds of the island are virtually treeless and support a thick cover of grass and wet tundra.

Described as a northern temperate rainforest, the vegetation of Fort Abercrombie State Historic Park is dominated by Sitka spruce forest and a shade-tolerant under-story. Magical looking and lushly green, the forest has an ideal damp environment for the abundant growth of many species of epiphytic mosses which adorn the tree trunks, produce giant festoons on branches and luxurious carpets on logs, stumps and the forest floor. Gray-green stringy lichens dangling from the branches add to the mysterious character of the Sitka spruce forest. Salmonberry, blueberry, and devil's club are the

typical shrubs. Various ferns and smaller more delicate plants such as shy maiden, trailing raspberry, and twyblade orchid, spring up from the carpets of mosses that cover the forest floor. The coastal wildflower meadows of Fort Abercrombie are also unforgettable. Chocolate lily, wild geranium, shooting stars, rose-purple orchid, yellow paintbrush, Nootka rose and wild iris are just a sample of the summer floral highlights that attract photographers and admirers from around the world. Along the beaches you can find specially adapted plants that tolerate salt spray. Beach greens, goosetongue, lungwort, beach lovage, and beach rye grass are the most common.

Intertidal Areas

While the areas below mean low tide are outside the park, these areas serve the public in several important ways. There are two primary intertidal areas that are commonly used, Lake Gertrude Beach and the Ram Site Beach. Even though the Ram Site Beach is not part of Ft. Abercrombie, its ease of access, high diversity of intertidal life and close proximity to the park office has made it a popular destination for guided tidepooling walks with park naturalists. Kodiak's diurnal (twice daily) tides range from extremes of +11.2 ft. to -2.6 ft. in the area of the park. Tides lower than -1 ft. are usually sufficient for good observations of intertidal life.

Subsistence

The incidence of paralytic shellfish poison (PSP) in Kodiak waters is high enough to not recommend any bivalve (such as clams) for human consumption unless a method for testing toxicity is used. The park's beaches are typically too rocky to support many bivalves with the exception of a few cockles, littleneck clams and rock oysters. However, this toxin does not affect univalved organisms or plants and there is some effort to harvest these species. For the most part, the majority of subsistence use on the beaches is for chitons and snails. At times they are collected by the bucketful along with an occasional octopus. Some seaweeds and kelps are harvested, but not in any quantity.

Tidepooling/Educational

Exploring tidepools is a very popular activity for all ages of park visitors. Guided tidepooling walks are conducted by several organizations (including park staff) that include everything from casual walks, school field trips, college courses and research projects. Commonly seen intertidal creatures include sea stars, chitons, whelks, nudibranchs, sculpins, gunnelfish, mussels, limpets, crabs, barnacles, worms, anemones, sponges, algae, kelp, and an occasional octopus. For a more complete list of tidepool life by the park, see Appendix C.

Wildlife

Kodiak is home to several species of terrestrial mammals ranging in size from the little brown bat to the famous Kodiak brown bear. The most common species of small mammals are the indigenous brown bat, short-tailed weasel, land otter and tundra vole as well as the introduced red squirrel, beaver, muskrat, house mouse, and the Norway rat. The Kodiak brown bear is the only large mammal that is native to the island. In the past

century, Sitka black-tailed deer, mountain goats, and reindeer have been successfully introduced to Kodiak. Roosevelt elk were successfully transplanted to Afognak Island, where they now constitute a healthy population that occasionally has members that swim across to Kodiak Island.

Kodiak brown bears are a unique subspecies, limited to the Kodiak archipelago. The current population exceeds 3,000 bears that occupy all available habitats on the islands. Recent studies have shown that the Kodiak bear population is healthy and productive. Bear densities are highest in areas that do not have permanent human occupation however, several bears occupy the Kodiak city vicinity. The Kodiak brown bears are arguably the largest in the world and they are an important economic resource for people. Sport hunting is closely regulated by the Alaska Department of Fish and Game, and the U.S. Fish and Wildlife Service provides habitat protection on the Kodiak National Wildlife Refuge. In the past decade, bear viewing has emerged as an increasingly important human use of the bear population. Bear human interactions are common occurrences in the Kodiak islands and there are few cases where people are seriously injured by bears. While Fort Abercrombie is too small to support resident bears, locals and visitors are offered bear safety brochures and training, and garbage collection on most of the road-connected areas is carefully managed to minimize bear problems.

Sitka black-tailed deer are common throughout Kodiak Island, with an estimated population of over 60,000 deer. These ungulates were introduced from southeast Alaska at the turn of the last century and today they provide one of the most important sources of meat to Kodiak residents and many non-local hunters. Deer populations are dramatically impacted by winter and early spring weather conditions, often succumbing to starvation or hypothermia when severe weather persists. In urban areas deer are also vulnerable to loose dogs, especially during the winter and early spring. Deer are a fairly common sighting in the park.

Mountain goats were introduced to Kodiak from the Prince William Sound area in the 1950s and now occupy all suitable habitats on Kodiak, with a population of about 2,000 goats. The goats are also an important species to hunters and wildlife viewers. Goat sightings in the mountains near Kodiak city have become more common in the past 10 years as the overall population has been increasing and expanding. There have been no reported adverse encounters between goats and people.

Roosevelt elk were introduced to Afognak Island from the Olympic Peninsula of Washington in the late 1920's. The population now stands at about 900 elk, occupying most areas on Afognak and Raspberry Islands. Occasionally elk swim across to Kodiak Island but a self-sustaining herd has never been established. There have been unconfirmed sightings of elk in the Monashka Bay area in recent years. Reindeer were introduced to Kodiak in the 1920's as an agricultural experiment. By the 1950's all herding had ceased and the reindeer are now considered feral. About 200 reindeer currently occupy the southwest part of the island and they never venture as far north as

the City of Kodiak. Other domestic livestock that free-range on the island include bison, cattle, and horses. Smaller animals found throughout the area, including the park, include fox, rabbit, muskrat, squirrel and beaver. Harbor seals, sea lions, and sea otter are seen frequently along the coastline adjacent to the park.

Whale-Watching

Miller Point is well known for its whale-watching opportunities. Humpback whales are frequently seen very close to the bluffs during the summer months, sometimes close enough to shore to hear them "blow" on quiet evenings. Humpbacks are known for their acrobatic aerial displays, and have provided many spectacular performances to park visitors. Pods of orcas (killer whales) pass by several times a year from Marmot Bay through the Kodiak harbor area and onward south. During the spring gray whale migration, gray whales can be viewed off-shore as they pass from Marmot Straits southerly towards Narrow Cape where they often feed for extended periods of time. Fin whales are commonly seen off-shore. Occasional sei and minke whales have also been sighted.

Lake Gertrude Sport Fishery Enhancement

During the past 50 years, Lake Gertrude has been subject to numerous sport fisheries enhancement efforts undertaken both by the Kodiak Conservation Club (which built and operated the Devil's Creek rainbow trout hatchery) and ADF&G. Historic records indicate that changes over time in numbers and species of fish stocked was both in response to measured or perceived poor success in previous stocking efforts as well as apparent changes in preferences for targeted species by the sport fishery. However, almost all narratives of stocking evaluations indicate that results measured in terms of sport fishing opportunity were less than expected. The stocking history of Lake Gertrude is chronicled in the following table.

| Year | Species Stocked/Activity |
|-------------------------|--|
| 1953-1963; 1973-present | Rainbow Trout |
| ~1965-1966 | Landlocked Sockeye Salmon |
| 1967-1971; 2005-present | Landlocked Coho Salmon* |
| 1972 | Lake poisoned to eradicate all native and introduced fish species in order to re-introduce rainbow trout the following year |
| 1979-1989 | Arctic Grayling |
| 2005-present | Landlocked Chinook Salmon* |

^{*}Stocking conducted only during years when numbers of fish surplus to other local enhancement projects become available.

Currently ADF&G stocks Lake Gertrude annually with ~3,700 reproductively sterile rainbow trout fry weighing between .5 and 1.5 grams. Survival rates of these fish are unknown. Since rainbow trout stockings between 1953 and 1990 used reproductively viable fish, it is reasonable to assume that at present there is also a small spawning population in this system. Up to 3,500 landlocked coho salmon and 3,000 landlocked Chinook salmon are scheduled to be stocked in Lake Gertrude during years when surplus numbers to other local enhancement project objectives for these species become

available. Formal objectives for the Lake Gertrude stocking project are contained in ADF&G's Statewide Stocking Plan for Recreational Fisheries, which is subject to internal and public review on an annual basis. In lieu of future changes to the statewide stocking plan, ADF&G plans to continue efforts to enhance the Lake Gertrude sport fishery.

Bird Species Background

Over 95 species of birds have been recorded within the park, or from its shores. The Sitka spruce forest that dominates the park holds Northern Goshawk, Three-toed Woodpecker, Common Raven, Winter Wren, Red-breasted Nuthatch, Golden-crowned Kinglet, Varied Thrush, and other forest birds. Marbled Murrelets nest in mature spruce in the park. Young birds have been found on the forest floor, and in summer at dawn and dusk, choruses of murrelets can be heard over the forest canopy. One Bald Eagle nest is located on City of Kodiak lands just west of the park, and eagles are common within the park. Lake Gertrude attracts a variety of waterfowl including Mallard, Common Goldeneye, Bufflehead, and Common Merganser. The meadows that border much of the rocky coastline host Savannah and Golden-crowned Sparrows in summer.

The variety of birds that can be seen from the park's shoreline includes loons, cormorants, sea ducks, shorebirds, gulls, and alcids. The park is one of the best places on the Kodiak road system to see wintering red-faced cormorant, a Beringian species. In summer, horned puffins nest on the bluffs at Miller Point. The beautiful harlequin duck can be seen near shore throughout the year. From prominent headlands, open water birds like shearwaters can sometimes be seen. The park provides not only good habitat for a large variety of birds, but also great birding opportunities for its visitors.

Transportation

The physical character of Kodiak Island strongly influences the availability of transportation to and within the area. Air, water and land transportation are all important modes, with air transportation perhaps being the most significant mode throughout the year. Air transportation is provided to the City of Kodiak by commercial airline and by chartered aircraft. Scheduled commercial flights provide service between Anchorage and Kodiak. These flights utilize the Kodiak Airport located five miles outside the City of Kodiak. Scheduled amphibious air service and charter flights are also available between Kodiak and other outlying communities within the Kodiak Island Borough.

Kodiak is served by the Alaska State Ferry system that has capacity for vehicles and hundreds of passengers. With favorable weather conditions, the trip to Kodiak averages 13 hours from Seward and 10 hours from Homer. Freight and barge service from Seattle and Anchorage are also available and play an important role in the local economy by transporting local fish products to outside markets. Outlying communities are served from Kodiak primarily by private fishing boats and commercial barge service.

The road system within Kodiak Island is very limited. While most of the outlying once-graveled roads are currently being paved, they are still narrow and winding in nature, and highly scenic. Roads north to Monashka Creek, and south to Chiniak are now paved. The highway to Pasagshak is currently being paved, with plans of paving all the way to the Narrow Cape Rocket Launch Complex. The road to Anton Larsen Bay remains a 2-lane gravel highway.

Historical and Archaeological Background

Fort Abercrombie State Historic Park and its adjacent areas have numerous features of both historic and archaeological significance. The stewardship of these features must be considered in developing the park for future generations.

Archaeological Themes and Resources

The Kodiak Archipelago has been home to the Alutiiq people for at least 7500 years. A maritime people, Alutiiqs share a cultural, linguistic and biological heritage with neighboring Eskimo and Aleut peoples. On Kodiak, archaeological work continues to reveal the long and complex history of the Alutiiq and the development of their societies. Archaeologists break the prehistory of the Kodiak region into three traditions, each representing a distinct way of life. The Ocean Bay Tradition (7500 to 4000 BP) is characterized by a mobile hunting and gathering lifestyle; the Kachemak Tradition (4000 to 1000 BP) by settled village life and an increased emphasis on fishing, and the Koniag Tradition (1000 BP to AD 1784) by ranked societies with hereditary chiefs who maintained power through trade, warfare, and ceremony. In 1988 archaeologists excavated the Monashka Bay site, a prehistoric settlement immediately adjacent to the park (on the City's Ram Site property), discovering occupations from both the Kachemak and Koniag Traditions. Important finds from this excavation included the remains of semi-subterranean structures, materials indicative of long distance trade (e.g., copper and coal), and a multitude of pebbles etched with images of people in ceremonial garb. ¹ The presence of a substantial settlement with multiple prehistoric occupations, just beyond the park boundary, suggests that the area was used repeatedly in the prehistoric era and has the potential to yield additional prehistoric sites. As such, the likely impacts to archaeological resources must be considered prior to ground disturbing activities.

Historical Themes and Resources

In 1784 Russians traders established their first permanent settlement in America at Three Saints Bay, only 100 miles southeast of the park. In 1792 the headquarters of the Russian American Company moved to St. Paul, now Kodiak Harbor, just a few miles from the park. By 1852, the park area was identified on Russian charts as 'Mys Melnichnoy,' or Mill Cape. This title reflects the presence of a Russian flourmill at the head of Mill Bay to the southwest. The point was previously labeled Popof Cape, perhaps in honor of

¹ The City of Kodiak donated the notes and materials from this excavation to the Alutiiq Museum, where it is stored as part of the permanent collections.

Vasili and Ivan Popof, pioneer fur traders and hunters in Alaska from 1762 to 1763. After the 1867 transfer of Alaska from a Russian to an American administration, Miller Point continued as a designation for the area, apparently a translation from the Russian. This history indicates the possibility for Russian era sites in the park, another type of archaeological resource.

World War II History

Post-Russian era military history on Kodiak started in 1898 with the establishment of Fort Kodiak in the current city area. The U.S. Navy established a radio facility on Woody Island in 1911. The onset of World War II in the late 1930's precipitated a rapid buildup of coastal defenses. Alaska was deemed strategic from its location on the Great Circle Route from the Orient both from a commercial and military perspective. Chosen for its location along this route, the US Navy began construction of the Kodiak Navy Base (at the current US Coast Guard base location) in 1939. Kodiak served as Alaska Defense Command for the entire Alaska campaign from October 1942 through March 1943.

In April of 1941, Battery C of the 250th Coast Artillery Regiment, a California National Guard unit, was deployed to Kodiak. The 250th brought its three mobile 155-mm guns on the U.S. Army transport, the St. Mihiel. By the end of October, the 250th had established headquarters at the Kodiak Navy Base, later formally named Fort Greely (named for the arctic explorer, Major General Adolphus W. Greely) in September 1941. The three guns were emplaced at Spruce Cape, Woody Island and Buskin Beach.

In June 1941, President Franklin D. Roosevelt signed an Executive Order, which withdrew 780 acres of private and public land in the vicinity of Miller Point for a military reservation. By November, an observation post at Miller Point was manned by Battery A of the 250th. The post was later named Fort Abercrombie for Lt. Col. William R. Abercrombie. As a company grade officer, Abercrombie played a major role in U.S. Army explorations in interior areas of Alaska during the late 19th century. However, Abercrombie was never actually present in Kodiak.

Battery B was deployed at Spruce Cape. Battery C was deployed to Long Island (later named Ft. Tidball, equipped with two six-inch guns). Battalion Headquarters were located at Buskin Hill, with support barracks where the present day USCG housing is located at Nemetz Park. Battery D was deployed to Cape Chiniak (later named Fort J. H. Smith). All the batteries received the official "Fort" names on April 29, 1943.

Prior to the attack on Pearl Harbor of December 7, 1941, Ft. Abercrombie was manned only during day hours. During the weeks after Pearl Harbor, all of the regiment's batteries did daily battery practice, and Abercrombie was manned continuously to defend the Naval Air Station, Kodiak, by denying entrance to hostile sea forces. Ultimately there were 150-200 men and about 25 Quonset huts and tents at Abercrombie. All of the Kodiak installations together reached a top strength of more than 11,000 men.

An account of garrison duty on Kodiak during this period indicates that life was relatively pleasant, with troops taking advantage of hunting and fishing opportunities. After Pearl Harbor was attacked however, it seemed an attack on Kodiak was imminent, and both residents and troops were on high alert. Civilian dependents were evacuated December 17, and the atmosphere was kept tense by reports such as that on May 5, 1942, of aircraft detected 125-140 miles south.

"Fort Abercrombie fired no shots in anger, and few in practice, but its ruins are material remnants of a time that anticipated and saw foreign invasion of American soil; they have an aura of historicity that conveys the location's significance in State History."

William S. Hanable Historical Review of Fort Abercrombie Site September 1971

Gun emplacements at Miller Point seem to have been low on the list of defense priorities. Not until May 1942, did Navy contractors begin a survey of the area for suitable gun mount positions. Following Japanese attacks on Attu, Kiska and Unalaska in the western Aleutians, detailed plans were written for installation of two 8-inch guns at Miller Point. The plans provided for observation posts on Kizhuyak Point to the northwest and Mount Herman on Spruce Island to complement the gun emplacement. A top-secret radar unit was to be established at Piedmont Point just southwest of Miller Point. They also provided two 60-inch mobile seacoast searchlights with power plants, to be placed in the Miller Point area and additional lights at Kizhuyak Point and Mount Herman. The installation was given the mission of denying Narrow Strait and Kizhuyak Bay to hostile sea forces with their two artillery pieces.

Available records of what happened at Miller Point after approval of fortification plans are sketchy. In May 1944, the 250th Coastal Artillery Regiment was broken up and redesignated. Events between May 1944 and the end of the war remain obscure. A field survey of the park during the spring of 1971 cataloged the location and traced each of the structures shown on an "as-built" map of 1943. Follow-up research has identified the function of most structures (or remnants). The Fort was divided into 2 separate components: Miller Point and Piedmont Point. Miller Point apparently was divided into three zones: operations, personnel support and logistical support. In the operations zone, the two eight-inch guns and the Ready Ammunitions Bunker were the most impressive structures.

In a desperate attempt to rapidly deploy heavy armament along the west coast of the US, various types of artillery were brought out of moth-ball status from around the country. The eight-inch Mark VI guns at Abercrombie were designed as World War I battleship guns, and constructed around 1900. Photos show Navy Seabees installing the guns at Miller Point in 1943. The Army made special shore mounts to allow the guns to rotate all

the way around (180 degrees). With a total weight of 155,000 pounds (77.5 tons), the guns could fire 240-pound exploding projectiles a distance of 35,365 yards (20 miles). They were fired frequently for practice, but never fired at an enemy. No photos are known to exist of the guns after construction.

An unidentified structure just to the south of the Ready Ammunitions Bunker may have been a storage area for battle allowance ammunition. To the west (in the current campground area), the battery commander's station shared a 50-foot wooden tower with a battery observation post. Less than 100 yards due west of this tower, a searchlight and its own generator was housed in a concrete shelter. Double doors allowed the 60-inch light to extend easily out from the shelter on grooved tracks. To the northeast is a small concrete bunker designated as Distant Electrical Control (DEC) on some plans, and Harbor Observation Post on others, and likely employed a binocular-like optic used to focus the searchlights on their targets. A surviving inventory shows that an automatic 40-mm cannon, two .30-caliber and two .50-caliber machine guns were in the Fort Abercrombie armory.

Warehouse and storage buildings seem to have been concentrated at the southern end of the garrison. The war reserve magazine was at the outermost point. Personnel support facilities lay between the operations and supply zones, and were the most numerous. Evidence of 25 Quonset huts or squad tents used as quarters, a mess hall, infirmary, recreation hall, and two buildings containing latrines and showers were used. The spotting and plotting room (bunker), a generator house, and an "elephant shelter" housing an automatic weapons magazine, were also in this area. Another building, identified as "barracks" on the 1943 map, is much smaller than other quarters and may have been used by personnel on duty at the adjacent battery commander's station.

Piedmont Point, 1/2 -mile southeast of the 8-inch gun positions, housed another tactical searchlight, a second DEC or observation post, an SCR-296 radar tower, and ancillary personnel facilities. Since radar was a very new technology at this time, its deployment was likely extremely guarded information. At this time, both the DEC and searchlight bunker remain in fair condition. The foundation is all that remains of the radar tower, along with several other foundation remains.

A review of all the available evidence shows that Fort Abercrombie probably was actively manned between the summer of 1942 and spring of 1944. At its peak, military activity at Abercrombie may have required between 150 and 200 men. All the Kodiak installations together reached a top strength of more than 11,000 men. In December 1944, most Kodiak installations were placed in caretaker status.

To prevent the possibility of the guns falling into hostile hands, demolitions experts blew up the gun batteries by packing them with explosives. According to veteran Heavy Artillery Mechanic, George W. Reynolds "If my memory is correct, it seems to me that they destroyed the eight inch guns at Miller Point sometime just before Thanksgiving,

1948." Fragments were blown some distance and the barrels ended up over the cliffs. Restoration efforts in the early 1980's salvaged the barrels and placed them on display next to the remains of their mounting carriages.

In the operations zone, the ready ammunition bunker has been restored and now houses the Kodiak Military History Museum. The DEC and the searchlight bunker are also substantially intact. In the personnel support zone, the plotting and spotting room, two generator bunkers and one shower and laundry building are the only significant structures remaining, while the war reserve magazine survives from the warehouse and storage area.

Recent History

After the Fort was abandoned by the military, it had a sordid history of use by residents, mainly as transient housing and became its own "community". Camps were set up, both inside and outside of the bunkers. It is rumored that it even had its own mayor and jail (in one of the bunkers). Much of the fort infrastructure was either destroyed or recycled into the community during this time. Fill material, a valuable commodity on the island, was quickly removed from the bunker revetments for use elsewhere in the community. The Miller Point Ready Ammunitions Bunker became a heavily used gathering area for parties and suffered from heavy graffiti. The two gun mounts were filled with broken glass and garbage, vehicles were abandoned, burned, and even pushed over the cliffs.

On January 30 1969, the park was officially established for its outstanding historical resources. The park was then listed on the National Register of Historic Places in 1970. The mere establishment of the park however, did not provide any staffing, and it was only after the urging of the local Kodiak government to deal with the problematic tenants that temporary employees were dispatched to the park in the late-1970's to clean it up. In 1980, 25 residents were evicted from the park and a new era of public use of the area began. Full-time staff was assigned to the park a short time later.

After years of working out of rented office space, trailers, and even the maintenance truck, an office and residence was finally constructed at its present site in 1981. Much of the current park infrastructure was built in the mid 1980's. The park was included as part of the Kodiak Naval Operating Base and Forts Greely and Abercrombie National Historic Landmark designation in 1985. A grant secured in the early 1990's provided the funding to waterproof and re-bury the Miller Point Ready Ammunitions Bunker as it was during the war. The interior was sandblasted, repainted to its original colors, and a heating system installed to allow the water-saturated building to dry. In 2000, it became the home of the present day Kodiak Military History Museum, operated by a volunteer non-profit group.