

*The Kodiak
Coastal Defense System
at Fort Greely
During World War II*



*U.S. Army
Fort Greely
Kodiak, Alaska*

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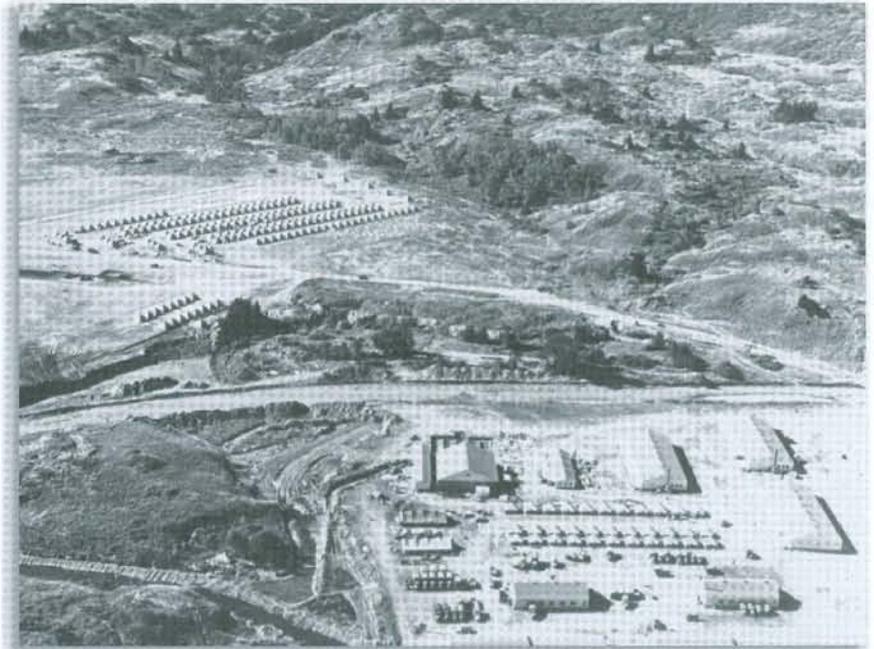
Construction of Kodiak Fortifications

Starting From Scratch

In September 1939, civilian contractor Siems-Drake Puget Sound arrived at remote Kodiak Island to create a naval base from the ground up, beginning with an air station and later adding an operating base and submarine base.

In 1940, fearing attack on the newly built and critically important naval facilities, the Navy prioritized building Army coastal defense units. Construction of Fort Greely, a new U.S. Army post located near the Navy base at Chiniak Bay, began on February 1, 1941. Troop housing and administration and hospital facilities were built prior to the arrival of troops. Extreme weather conditions, including high winds, excessive rain, and heavy seas, hampered construction and destroyed building supplies. Almost all labor and materials—including worker housing—had to be shipped from Seattle, increasing expenses and requiring the stockpiling of materials to prevent delays.

To defend the vulnerable naval base prior to the construction of fixed military defenses, mobile guns were rushed to strategic points along the island's coast. On April 3, 1941, Battery C of the 250th Coast Artillery arrived at Kodiak and moved into temporary quarters at the naval base. On April 6, 1941, 155-mm guns were moved to temporary locations in the Buskin Flats area. Additional locations for gun batteries were reconnoitered while the initial defense plan was prepared. Colonel Benjamin B. Talley of the U.S. Army Corps of Engineers was in charge of



Aerial view of Army tent camp. September 1941. (Kodiak Historical Society)

the construction of both permanent and temporary coastal defense gun batteries and anti-aircraft positions, which were built by civilian labor.

Other early arrivals at Kodiak in 1941 included a medical detachment, which landed on July 6, and the first units of the 215th Coast Artillery, which arrived on August 3. These troops joined construction laborers to build a "Tent City" near Barometer Mountain to shelter themselves and the thousands of other troops to come in the approaching winter. By October 1941, Fort Greely was a thousand strong, including 17 Army nurses, whose arrival was headlined by the post's small mimeographed newspaper, the *Fort Greely Weekly*. It was reported that Army officers met the nurses at their boat and immediately conducted them on a tour of Kodiak and Fort Greely. Brigadier General Charles H. Corlett also arrived in October to assume command of Fort Greely from Colonel William D. Frazer.

Prescription For Heating

"Omygosh! A war going on and what do those Tent Citians have to do? Why install a Sibley stove in their tent outhouse. Are we mice or men?"

from the *Kodiak Bear*, October 1941

"Miracle at Dunkirk"

MAY 26

Battle of Britain begins

JULY 10 SEPT. 16 SEPT. 27 NOV. 5

Military draft begins in U.S.

Tripartite alliance formed between Germany, Italy, and Japan

Roosevelt elected to third term

Construction of Fort Ray (Sitka) and Fort Mears (Dutch Harbor) Army garrisons and fixed harbor defenses begins

JAN.

Construction of Fort Greely (Kodiak) Army garrison and fixed harbor defenses begins

FEB. 1

Lend-Lease Act signed by Roosevelt

MAR. 11

Germany attacks Soviet Union

Hideki Tojo becomes Prime Minister of Japan

JUNE 22 OCT. 17

Japan attacks Pearl Harbor

DEC. 7

U.S. and Britain declare war on Japan

DEC. 8

Germany declares war on the U.S.

DEC. 11

1940

1941

War Arrives

Hawaii and Alaska Attacked

The Japanese attack on Pearl Harbor on December 7, 1941, triggered an explosive increase in military construction at Kodiak. Fort Greely went on alert status with orders that positions be guarded and ready for action around the clock. War had come to the Pacific just 10 months after construction of the Army post had begun, but Fort Greely's only coastal armaments consisted of four 155-mm guns—not enough firepower to defend Kodiak against a determined attack by the Japanese.

In the December 15, 1941, edition of the new post newspaper, the *Kodiak Bear*, General Charles H. Corlett warned, "They [the Japanese forces] will catch us off our guard if they can. An appropriate time for their attack against us might very probably be on Christmas Eve or New Year's Eve or on payday. While we must be ever watchful, we want to live as nearly normal as we can. We must ever remain proud that we are soldiers and we must wear our uniform in a way that marks a good soldier."

But for military families at Fort Greely, life would be far from normal—military dependents were ordered to evacuate.

After Lieutenant Colonel James Doolittle launched a daring B-25 attack on Tokyo from aircraft carriers in April 1942, war moved even closer to Fort Greely. Japanese naval forces under the command of Vice Admiral Boshiro Hosogaya attacked Alaska in June 1942, first launching air strikes against Dutch Harbor from aircraft

carriers. Next, the Japanese captured Attu and Kiska, remote islands on the western end of the Aleutian Island Chain.

The attack on Alaska was part of Admiral Isoroku Yamamoto's strategy for the battle of Midway. Yamamoto hoped to lure Admiral Chester W. Nimitz, U.S. Commander in Chief, Pacific, into sending the already weakened American Pacific fleet north into an ambush by Japanese naval forces. But the Japanese code had been broken and Nimitz, who had learned of the Japanese plan to attack the Aleutians, sent only a small task force under Rear Admiral Robert A. Theobald to protect Dutch Harbor. However, Theobald chose instead to deploy his forces south of Kodiak Island, leaving Dutch Harbor vulnerable to the Japanese attack.

Tension increased at Kodiak, with the enemy on its doorstep. Feeling the threat of imminent invasion, Fort Greely headquarters issued a memorandum on June 3,

1942, stating, "Complete BLACK-OUT throughout the entire garrison will be effected between the hours of 10:00 pm and 3:00 am each day until further notice."



Tent City at Fort Greely. (Kodiak Historical Society)

JAN.	FEB.	APRIL	APRIL	JUNE 3	JUNE 4	JUNE 6-8	JUNE 11	JUNE	JULY	SEPT.	SEPT.	OCT. 22
Construction of Fort Glenn (Umnak) airfield and Army garrison begins	Construction of Fort Randall (Cold Bay) airfield and Army garrison begins	U.S. citizens of Japanese descent forced into 'relocation centers'	Doolittle launches air raid on Tokyo	Japanese attack Dutch Harbor	Japanese capture Kiska and Attu	Japanese Navy defeated in Battle of Midway	U.S. begins bombing Japanese on Kiska	Aleuts moved from the Aleutian and Pribilof Islands	Construction of Fort Morrow (Port Heiden) airfield and Army garrison begins	Construction of Adak airfield and Army garrison begins	Construction of Atka airfield and Army garrison begins	Fort Greely designated as Alaska Defense Command Headquarters

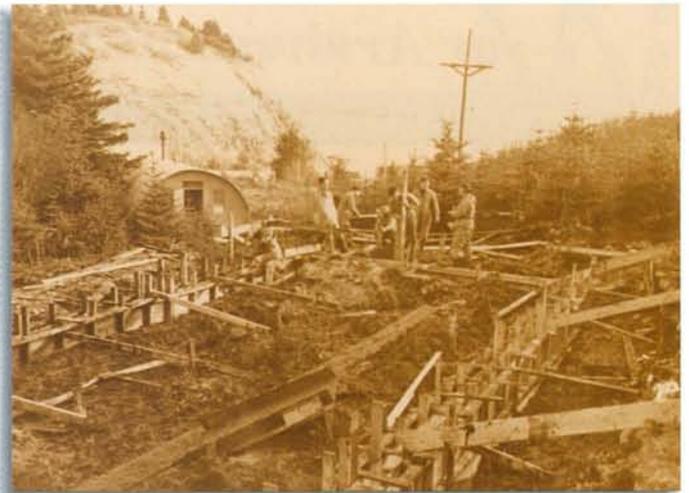
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Living With the Threat of Invasion

Impact on the Kodiak Coastal Defense System

As Kodiak braced for an assault by the Japanese, the frantic military buildup peaked in 1942, with nearly 3,000 civilian and troop laborers on the job. After Pearl Harbor, expectation of direct attack heightened with news of continuing Japanese military successes in Asia and the Pacific. Vigilance increased—many soldiers dug more than one personal foxhole. Troops were expected to work on holidays and Sundays and were allowed only one day off a week. Nervous entries were recorded in the Harbor Entrance Control Post Journal about possible enemy sightings and unidentified vessels and planes. However, tension eased somewhat after the American victory at Midway on June 8, 1942.

The years 1942-1943 proved to be the zenith of military activity at Kodiak. In spring of 1943, Navy



Construction of Quonset hut on Buskin Hill. March 1943. (Kodiak Historical Society)

construction battalions ("CBs" or "Seabees") and Army Corps of Engineer units under Colonel Benjamin B. Talley took over the remaining construction. Although not fully complete, Fort Greely served as the Alaska Defense Command Headquarters from October 1942 to March 1943, pending the American counterattack on the Japanese in the Aleutians. Rear Admiral Theobald, commander of the U.S. Navy North Pacific Force and the Army Air Corps Eleventh Air Force, and Army ground forces commander Major General Simon B. Buckner jointly coordinated military movements in the Aleutians and mainland Alaska from Fort Greely (although they were reported not to get along).

At full capacity, Fort Greely housed nearly 750 officers and 10,000 soldiers waiting at the ready for an enemy attack.

Battery 1 of the 215th Coast Artillery Regiment (antiaircraft). Buildings were irregularly painted to provide camouflage, as seen here behind group. March 1943. (Kodiak Historical Society, Thelma Johnson Collection)



Construction of Amchitka airfield and Army garrison begins

Alaska Defense Command moves headquarters to Adak

Battle of Komandorski Islands

Fort Greely sub-posts named Forts Abercrombie, Greely, Smith, and Tidball

U.S. re-takes Attu

Construction of Attu and Shemya airfields and Army garrisons begins

U.S. re-takes Kiska

Construction of Kiska airfield and Army garrison begins

Fort Greely troop departure begins

D-Day: Allies land at Normandy

JAN.

MARCH

MARCH 23

APR. 27

MAY 30

JUNE

AUG. 15

AUG.

JAN. 23

JUNE 6

1943

19

Fighting Back

U.S. Moves Against Japanese in the Aleutians

The remoteness of the Aleutian Island Chain, stretching over 1,200 miles west from Kodiak, hampered strategic U.S. flight missions—pilots were challenged by long over-water flights, extreme weather conditions, and poor visibility. In preparation for ending Japan's occupation of Attu and Kiska Islands, many Aleutian bases were built in 1941-1943, including airfields at Adak Island, the American air base farthest west in the Aleutians. Prior to the re-taking of Attu on May 11, 1943, and Kiska on August 15, 1943, Major General Simon B. Buckner and Rear Admiral Thomas C. Kinkaid, Admiral Theobald's replacement, moved Alaska Defense Command headquarters from Kodiak to Adak.

Although the front lines of the war moved westward, Kodiak remained an integral part of North Pacific military operations. Throughout the remainder of World War II, Kodiak continued to serve as the major medical, staging, repair, and refueling base for units on their way to and from more westward bases. In a war that spanned the Pacific Ocean, Kodiak was of strategic and logistical importance, providing a vital link to military operations to the west.

A Job Well Done

Kodiak Coastal Defense System Fulfills Its Mission

After the Japanese were driven from the Aleutians in 1943, the immediate threat to Alaska dissipated. U.S. military bases had effectively blocked the once vulnerable North Pacific gateway to American territory. Consequently, the sudden and rapid military buildup at Fort Greely reached an abrupt halt, although many of the planned facilities had already been completed. By January 1944, construction costs had exceeded \$17 million.

As the U.S. military focus shifted to the war in Europe and the Central and South Pacific, troops began departing Fort Greely in early 1944. By December of the same year, Fort Greely was put into caretaker status. Fort Greely's sub-posts were deactivated in 1945 and their remaining armaments destroyed—the role of the Kodiak coastal defense system in World War II was over. But for a brief and frenetic time, Fort Greely had successfully defended the North Pacific, without ever firing its guns on the enemy.



GI peering from observation post at Burt Point, Fort Tidball. (Kodiak Historical Society)

- Over 200 Japanese aircraft destroyed in Marianas JUNE 19-20
- U.S. destroys remnants of Japanese Navy in Battle of Leyte Gulf OCT. 23-26
- Roosevelt elected to fourth term NOV. 7
- Fort Greely placed in caretaker status DEC.
- Battle of the Bulge ends in German defeat JAN. 16
- Tokyo firebombed MAR. 9
- Aleuts allowed to return APR.
- Roosevelt dies; Harry S. Truman becomes President APR. 12
- Victory in Europe Day MAY 8
- Atomic bomb dropped on Hiroshima AUG. 6
- Soviet Union declares war on Japan AUG. 8
- Atomic bomb dropped on Nagasaki AUG. 9
- Victory in Japan Day AUG. 15



New Harbor Defense Strategies

Fort Greely's Design

Fort Greely's coastal defense system was designed to reflect new military technologies of the time. To defend U.S. seacoasts during the 19th century, shore-based guns were housed in the faces of vertical-walled masonry fortifications overlooking harbor entrances. However, these seacoast defenses proved ineffective against the Civil War-era technology of rifled guns with more penetrating power and greater projectile reach. Similarly, the sprawling coastal batteries and ammunition magazines of the 1920s, tied together by access roads, were no match for the 1930s advent of longer-range guns and overhead air attacks.

Thus, new harbor defense strategies were developed. Long-range gun batteries, powerful nighttime harbor search lights, and sophisticated artillery targeting and fire control devices were located in concealed defensive units dispersed in coastal areas to escape detection from the air or sea.

The high sea cliffs of Kodiak's northeastern shores were ideal for the new style of harbor defenses. Prominent bluffs north of the Buskin River at Buskin Beach, where Fort Greely's central headquarters were located, offered unobstructed views of Kodiak, St. Paul Harbor, and the naval base. Rock outcrops and vegetation provided natural concealment.

Many of the bunkers built along the Kodiak coast, including those at Buskin Beach, were partially subterranean with vertical-faced walls designed to blend into their surroundings. The use of camouflage nets also aided in concealment.



Fort Greely protected naval facilities, including Kodiak Naval Air Station on Nyman Peninsula, shown here. Hangar roofs were camouflaged to resemble smaller buildings. (U.S. Coast Guard Facilities Design and Construction Center (Pacific))

Protective Concealment

"The general plan of the camouflage of the three fixed gun batteries is to prepare permanent camouflage which will be lasting and will completely hide the gun installations. The use of artificial camouflage is to be held to a minimum. ...Each gun position is to be covered with an imitation rock. This rock is to be a thin shell of pigmented cement irregular in shape with grass and moss growing on it."

from "Supplemental Annexes to Harbor Defense Project of Kodiak," 1944



Elements of the Kodiak Coastal Defense System

How Was Fort Greely Organized?

Dispersed around Chiniak Bay and on nearby islands were the numerous defensive structures that comprised Fort Greely's far-flung coastal defense system, which was connected by roads carved through the forests and rugged terrain, or accessed by boat. In April 1943, the Army officially organized these outlying defenses into four satellite posts, designated as forts. Each of the following had two fixed gun batteries (for a total of eight batteries), a command post, and associated defensive functions:

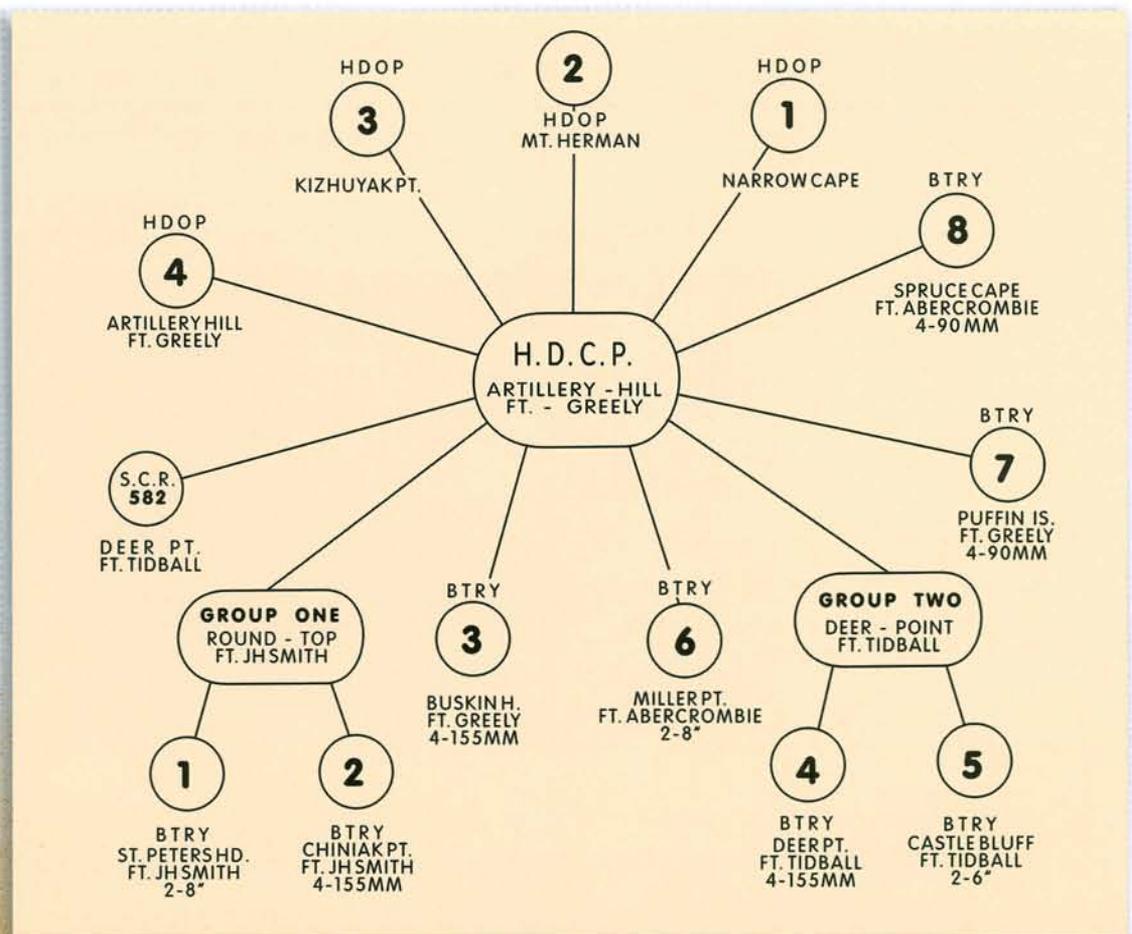
- Fort J.H. Smith, the most distant of the defensive positions, included Chiniak Point and St. Peters Head
- Fort Tidball, on Long Island, included Castle Bluff and Deer Point

- Fort Abercrombie included Spruce Cape and Miller Point
- Fort Greely included Puffin Island and Artillery and Buskin Hills (even though the name Fort Greely was also used for the Kodiak coastal defense system as a whole)

Buskin Beach was the site of Fort Greely's central headquarters; Artillery Hill was designated as the Harbor Defense Command Post, protected by a gun battery located at Buskin Hill.

Radiating out from Buskin Beach was the vital network of observation posts, radar stations, and searchlight shelters built to warn of enemy attack. Other key defensive facilities included radio stations, tide stations, meteorological stations, docking facilities, roads, and power plant shelters.

Original Kodiak Coastal Defense Tactical Plan. Gun batteries (BTRY), radar stations (SCR), and harbor defense observation posts (HDOP) reported to the Harbor Defense Command Post (HDCP) at Artillery Hill, the central headquarters for Fort Greely. (National Archives)





Harbor Defense Command Post

Nerve Center of the Kodiak Coastal Defense System

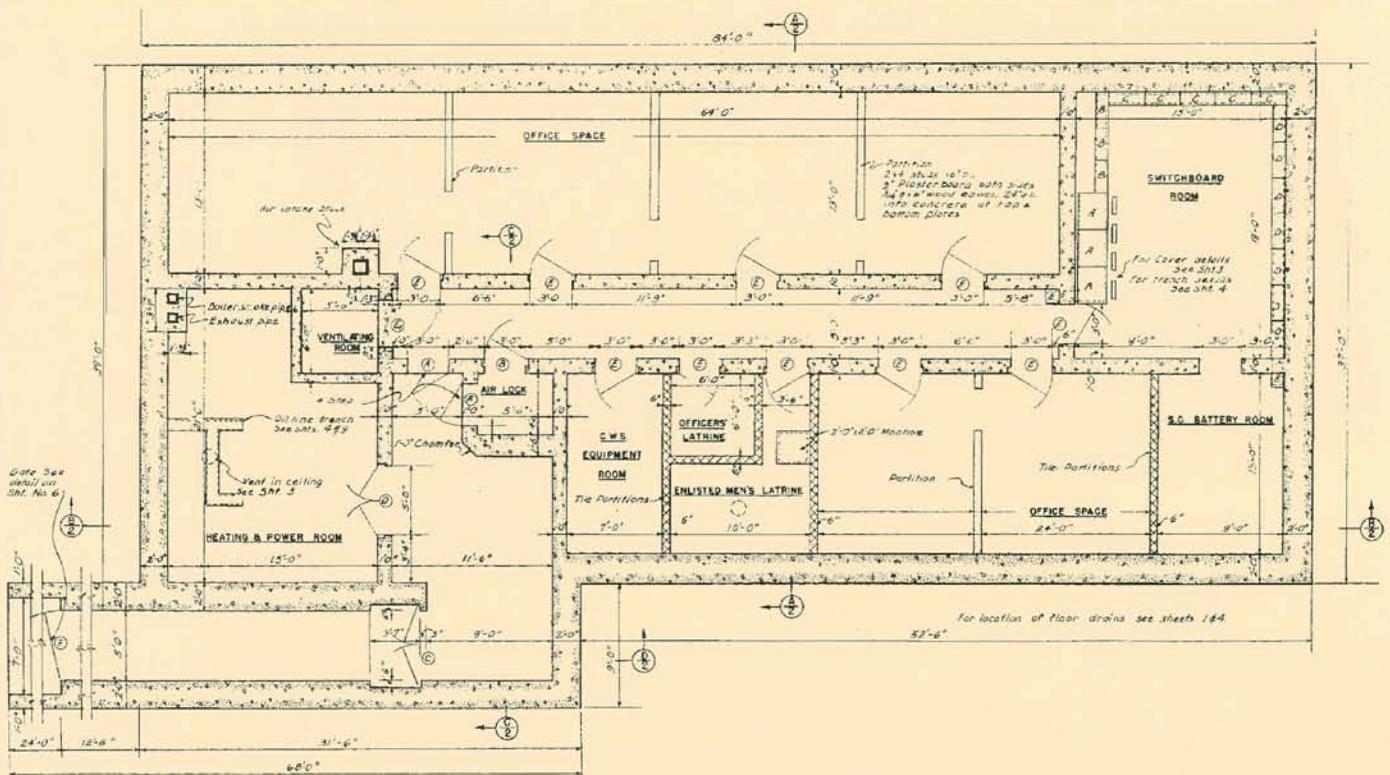
Built in 1942, the Harbor Defense Command Post was the central control point for the widely dispersed outposts of Fort Greely's coastal defense system. Located high on Artillery Hill and built 120 feet from the edge of the cliff, this fully-concealed structure was buried in the hillside with no windows or exposed faces; only the access tunnel and vent pipes were visible aboveground. If the Japanese attacked, top Fort Greely officers would have maintained command from within this bunker.

Telephone switchboards connected all gun batteries to the Harbor Defense Command Post—orders to fire on targets were issued here. The extensive buried telephone network also connected all the components of the Kodiak coastal defense system with each other and the Harbor Defense Command Post. Miles of telephone cables crossing bays connected islands and even the most remote locations, providing the communication that made a coordinated defense possible.

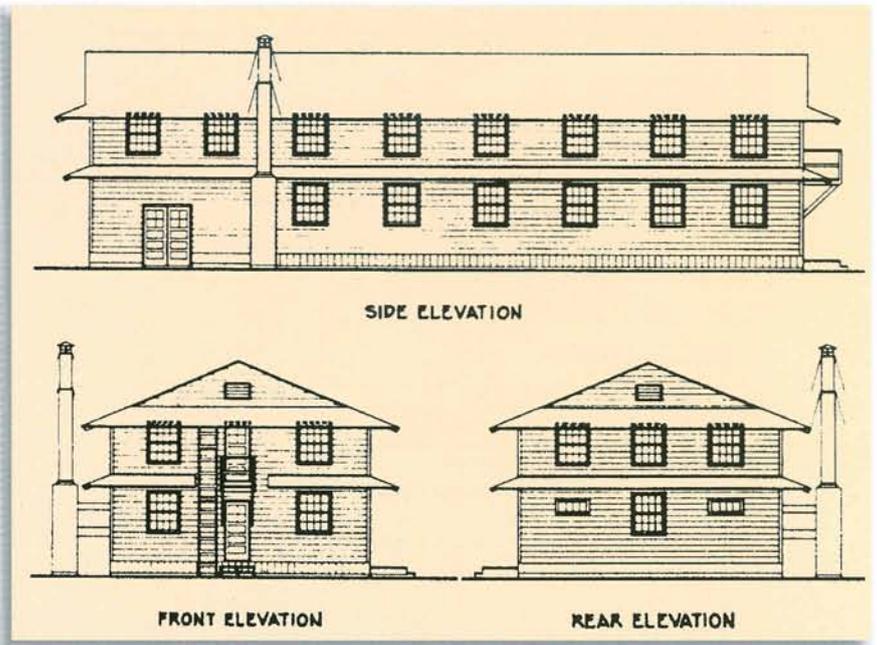
Assuming an even more important role from October 1942 to March 1943, the Harbor Defense Command Post became the forward headquarters for the Eleventh Air Force and Alaska Defense Command.

Serving as eyes and ears for the Harbor Defense Command Post, the separate harbor defense observation post, with unobstructed views of the harbor and the naval base, perched on the sea cliff 50 feet away.

The Harbor Defense Command Post's massive reinforced concrete structure had walls 2 feet thick and gas-proof doors, as shown in these original construction drawings. The floor plan included six offices, a switchboard room, building support mechanical rooms, latrines, and a battery room. 1945. (National Archives)



Floor plans for the versatile 700 Series buildings were altered to fit building functions. For barracks, the design was simply lengthened by 10 feet to increase the capacity of a 63-person to a 74-person barracks. 1994. (Wasch et al.)



In Support of the Kodiak Coastal Defense System

Administration, Maintenance, and Life-Support

Although barracks were located at individual posts, a much larger infrastructure was required to fully support Fort Greely's big guns. Two cantonments were built inland of the coastal defenses in an area north of the Buskin River. Here, troops were housed in barracks and necessary services were provided to support military administration, maintenance, and daily life.

Cantonment barracks design followed mobilization general plans developed by the Army Quartermaster Corps. The 63-person 700 Series barracks were constructed throughout Cantonment No. 1 using the linear construction layout of the Naval base. However, in response to military policies regarding camouflage and dispersion, Cantonment No. 2 barracks were constructed in a more irregular layout that was less detectable from the air. Later housing consisted of Quonset huts, which were also less apparent from above and faster to construct.

Cantonment buildings important to the soldiers' daily life included mess halls, shower and latrine facilities,

dispensaries, infirmaries, a bakery, and laundry facilities. Off-duty structures built at Fort Greely included post exchanges, day rooms, theaters, a ski area, libraries, and chapels.

To supply Fort Greely, quartermaster and cold storage buildings and gasoline and oil storage facilities were built. Fire stations, repair shops, guardhouses, a decontamination building, and cryptographic station also supported the military effort. Additional munitions, including

ground troop ammunition, were stored at the cantonments in ordnance warehouses and magazines and were serviced in an ordnance shop.

Utilities for the base included five water systems with a total 660,000-gallon capacity, two sawmills, seven sewage systems, an extensive telephone system, one principal electrical system, and five outpost electrical systems.



Barracks followed standard 800 Series Cantonment design used during World War II base construction, as shown here at Fort Tidball on Long Island. The 800 Series was developed from the earlier 700 Series, and was basically the same design, but with fewer embellishments. October 1941. (Kodiak Historical Society)

Big Guns

Heart of the Kodiak Coastal Defense System

The sudden and vast military buildup at Kodiak centered on the 26 big guns brought north to deny hostile sea forces access to Chiniak Bay, home of Kodiak's naval base. These guns were installed around the bay in batteries with overlapping ranges and were manned by the Coast Artillery Corps, a specialized force.

The big guns at Fort Greely varied in size and firepower. The 8-inch and 6-inch guns had the longest ranges, 20 miles and 15 miles, respectively. To attain greater firing accuracy, special mounts were constructed to fix the guns, yet also allow them to rotate 360 degrees. The 8-inch guns were so heavy that they had to be rotated every hour to prevent indentations in the tracks. The 8-inch batteries were constructed in a "U"-shaped design with a central magazine between two open gun platforms. The 6-inch batteries and magazines were constructed in a "T"-shaped design.

The 155-mm guns, with a range of 10 miles, were the most widely used seacoast defense artillery pieces. These guns also originated as World War I armaments, Americanized versions of the 1917 French tractor-drawn



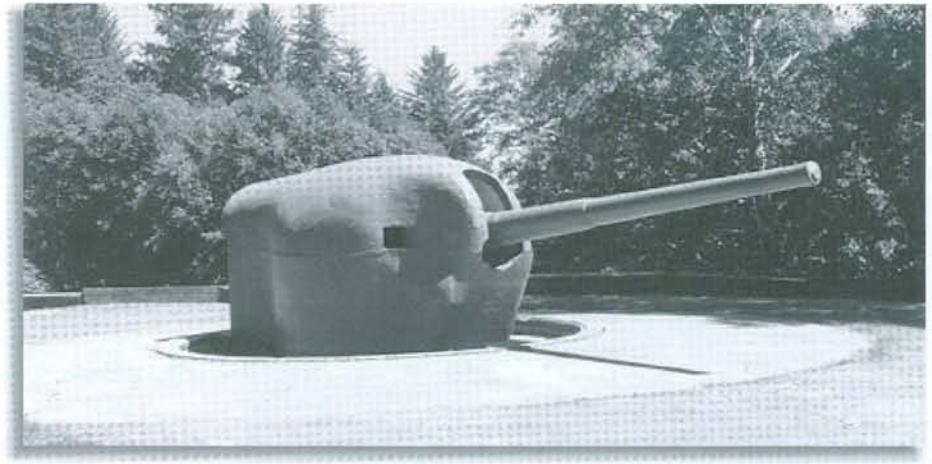
Seabees preparing to install 8-inch gun at Fort Abercrombie. 1943. (Kodiak Historical Society)

field artillery weapon called the 155-mm Grande Puissance Filloux (GPF). However, for greater firing accuracy and speed, the mobile 155-mm guns were converted

DISPOSITION OF FORT GREELY'S FIREPOWER

Sub-Post Designation	Location	Battery No.	Gun Quantity	Gun Type
Fort J.H. Smith	St. Peter's Head	1	2 fixed	8-inch MkVI 3A2
	Chiniak Point	2	4 fixed	155-mm 1918 M1
Fort Greely	Buskin Hill	3	4 fixed	155-mm 1917 A1
	Puffin Island	7	2 mobile 2 fixed	90-mm M1
Fort Tidball	Deer Point	4	4 fixed	155-mm 1918 M1
	Castle Bluff	5	2 fixed	6-inch M1903A2
Fort Abercrombie	Miller Point	6	2 fixed	8-inch MkVI 3A2
	Spruce Cape	8	2 mobile 2 fixed	90-mm M1

Shielded 6-inch gun similar to those at the Fort Tidball batteries. This is one of two guns on display in Battery 246, Fort Columbia State Park, Washington. August 1999. (Fort Columbia State Park)



to fixed guns. A 360-degree firing range was achieved by mounting a mobile 155-mm gun on a concrete platform surrounded by a concrete ring with an embedded curved steel "racer" upon which the gun's twin rail legs rode. Because it was initially developed in the Panama Canal Zone, this type of gun emplacement was known as a "Panama mount."

While other gun batteries were placed above 100-foot elevations, 90-mm batteries were installed at lower elevations to be used as anti-motor torpedo boat (AMTB) guns.



During 37-mm anti-aircraft gun training sessions, the commanding officer shouted "Details Post," and crew members leaped to their positions working the gun, the fire control apparatus, and the ammunition detail. May 1943. (National Archives)

Ready

READY: The process of firing the big guns began with sighting an enemy target from a harbor defense observation post or base-end station. Once a target was identified, a minimum of two partner base-end stations located along the coast on known base lines would telephone the target position to the plotting building at the closest gun battery.

Aim

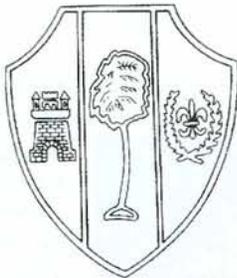
AIM: In the plotting building, the distance and speed of the target was calculated by engineers using a triangulation system.

Fire

FIRE: The projected position coordinates of the target were then telephoned to the gun battery, which was armed and ready to fire. With the coordinates in hand, the gunners positioned the gun and, on orders from the Harbor Defense Command Post, commenced firing.



Operating Fort Greely's Big Guns



Insignia of the 250th Coast Artillery Regiment, which was inducted into service at San Francisco, California, and later arrived in Alaska September 19, 1941, where it remained until March 16, 1944.

from *World War II Order of Battle*, Shelby Stanton, 1984

Panama mount with 155-mm gun at Fort Rousseau, Makhnati Island, Sitka, Alaska. Similar to Kodiak coastal defense 155-mm guns. 1940s. (Sitka Historical Society)



Battery Organization

One battery (company) of soldiers was assigned to a battery of guns. The number of soldiers in a battery depended on the type of guns being used. The soldiers were divided into three sections:

- The HQ section, which included the Battery Commander (usually a captain in rank) and four to five soldiers operating communications equipment.
- The range section, which included a plotting detail (10-15 soldiers) and as many observing details and spotting details (2 soldiers each) as there were base-end stations.
- A gun section for each gun, which included an ammunition squad and gun squad.

Ready *Finding the Target*

During a gun drill, soldiers would first examine all equipment at their stations, including communication lines, to ensure that everything was ready and in good working order. In addition, meteorological, tide, projectile weight, and powder information was received. After all stations had reported in, the gun battery was ready to be assigned its target. During this period, a time interval bell system was activated that rang in a set pattern (e.g., three rings, 1 second apart) simultaneously at each station, every 20 seconds. Target direction and speed were calculated from readings taken in time with the bell.

Targets could be sighted from both harbor defense observation posts and base-end stations. Once the target was received, an observer kept his azimuth scope trained on the center of the target and the Battery Commander gave the "Track" command. Finding the position of a target was based on simple trigonometry. Precise optical instruments were used to observe the target from a minimum of two base-end stations located along the coast on known base lines. This was known as a horizontally-based system. A vertically-based system utilizing an optical depression position finder (DPF) instrument was also used at Kodiak. The vertically-based system could resolve the position of a target independent of another station's azimuth. At the last ring of the time interval bell, the current azimuth would be reported by telephone to the plotting room.

Three harbor defense observation posts were constructed on the outermost edges of the Kodiak coastal defense system at Narrow Cape, Mt. Herman, and Kizhuyak Point; a fourth harbor defense observation post was placed at Artillery Hill close to the Harbor Defense Command Post. Because of mountainous terrain and remote locations, outlying defense observation posts did not have partners to produce a second line-of-position. However, the more numerous base-end stations were located within uninterrupted sight of partners and near, or with, gun batteries.

Harbor defense observation posts and base-end sta-



Radar station under construction at Piedmont Point, Fort Abercrombie. August 1943. (Kodiak Military History)

tions were built in a wide variety of building styles. On high cliffs, they were constructed as reinforced concrete bunkers; in forested areas, wooden towers were built, typically 50 feet high (the highest at Spruce Cape was 72 feet). Some harbor defense observation posts and base-end stations were single level structures and others had two levels, with two differing functions.

Targets could also be located at night. Searchlight bunkers on the edge of sea cliffs housed 60-inch carbon arc lights that illuminated enemy vessels in the harbor. The lights were stored inside the bunkers and rolled out on grooved tracks. Because the searchlights were so bright that nighttime vision could be impaired, operators aimed them by remote control from distant electric control (DEC) bunkers (also called pillbox bunkers).

Early radar equipment was used at Fort Greely to locate targets during bad weather or at night. Seacoast radar stations were located at Deer Point (Fort Tidball), Piedmont Point (Fort Abercrombie), and Castle Bluff and Round Top (Fort J.H. Smith).



Under construction, this observation post at Miller Point, Fort Abercrombie, was a two-level wooden tower standing 50 feet tall. The gun battery command station was on the lower floor; base-end stations were on the upper floor. October 1941. (Kodiak Historical Society)



Plotting the Target

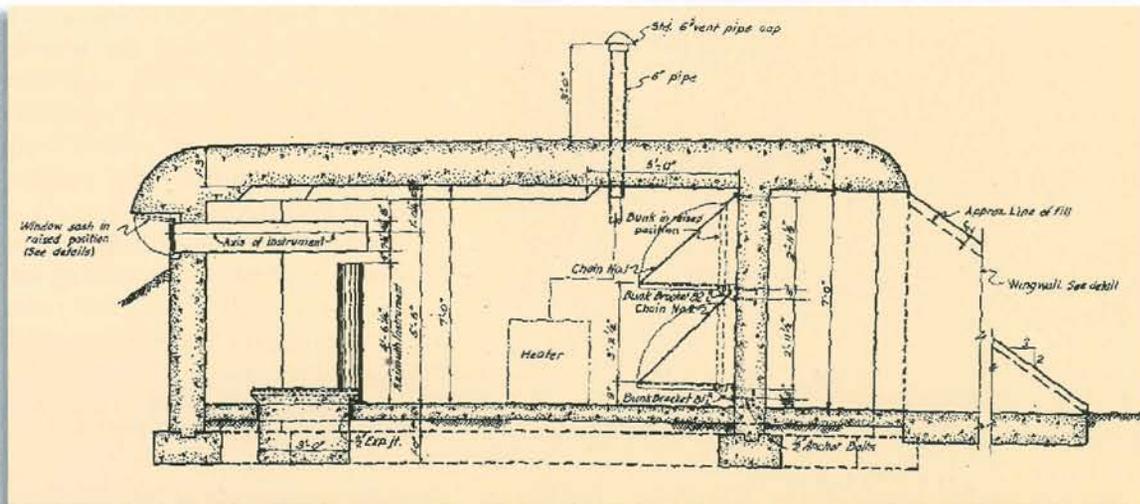
Each gun battery had an independent "plotting and spotting" building, referred to as the plotting room. Azimuth readings were received at the plotting room from base-end stations—no "spotting" or observation of targets took place there, as the name implies. The plotter determined the coordinates of the target at 20-second intervals on a plotting board. After at least three points were determined, engineers mathematically tracked the target's speed and direction and computed its predicted course, called the "set-forward point." Firing positions were then telephoned to the gun battery, where they were posted on the range board. Coordinates were also corrected with new spotting and plotting information and sent to the gun squad recorders in proper firing intervals.

Construction of plotting rooms ranged from non-fortified to massively fortified. For example, the plotting room for the 155-mm gun battery at Buskin Hill was constructed with 6-inch thick wood laminated walls. However, the plotting room for the 8-inch guns at Miller Point was a bunker with 4-foot thick reinforced concrete



Azimuth instruments were used to measure target direction in a horizontal-based position finding system. (Alaska State Parks, Chuck Underwood Collection)

walls, the standard design for an 8-inch battery. Plotting rooms were located away from gun emplacements to alleviate firing concussion effects.



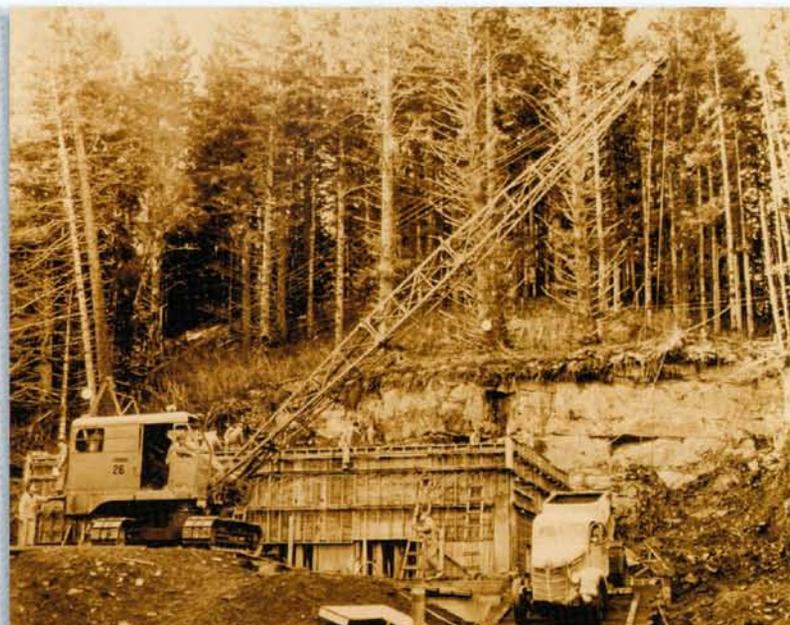
From the as-constructed drawing of the Artillery Hill Harbor Defense Command Observation Post, which was equipped with optical instruments. Two bunk beds provided accommodations for 24-hour watch of the Chiniak Bay horizon. January 1946. (National Archives)

Fire *Firing the Guns*

After firing position coordinates were telephoned to a gun battery, the gun squad would begin to point the gun according to the azimuth and elevation listed on the range board. Meanwhile, the ammunition squad prepared the first projectiles and powder bags in the nearby magazines. All was ready for the Harbor Defense Command Post to issue orders to the Battery Commander to "Commence Firing."

Once this command was given, the ammunition was brought out to the gun. The gun was loaded by opening the breech, swabbing the gun tube, ramming the projectile and powder bag home, closing the breech, and inserting a primer in the firing lock of the breech. The gun was fired on the last ring of the time interval bell, or on command, by pushing the trigger button. Guns were fired until the "Cease Fire" command was given and a new target was received, or until the "Cease Tracking" command was issued, which ended the engagement.

During engagements, the guns were re-supplied from battery magazines, which normally only held enough ammunition for about an hour of sustained action. Igloo-type magazines, constructed of corrugated "ingot iron" pipe forming an arched cavern, were typical of the magazines located at battery positions. Three 1-foot thick reinforced concrete walls 16 feet high formed the entry of



War reserve magazine at Miller Point, Fort Abercrombie, shown here under construction, still stands today at Fort Abercrombie State Historical Park. November 1943. (Kodiak Historical Society)

magazines and Quonset hut-type magazines were more economical and practical to build than concrete magazines.

Between engagements, the batteries were re-supplied from reserve magazines, which were constructed to store various types of dry ammunition, including war reserve,



Present-day photos of Igloo magazine on Buskin Hill. Defilading walls shown on left and view from inside magazine on right. May 1998. (U.S. Army Corps of Engineers)

igloo-type magazines. The defilading wall (a wall protecting from sweeping gunfire) facing the entrance to the magazine was built at a slight angle to offset the energy of an ammunition explosion – should one occur.

Elephant-type magazines, sized to hold small quantities of munitions (but large enough to hold an elephant), were smaller than the igloo-type. The body of the magazine was constructed of corrugated steel, like the igloo-type. However, an earthen mound shored with wood posts and board planking protected the entrance. Igloo-type



battle allowance, ready, and automatic ammunition, and fuzes and primers. The utmost planning went into concealing ammunition magazines, which were completely buried and conformed to original site contours. Larger ammunition bunkers constructed of either reinforced concrete or corrugated steel had characteristic concrete vertical entry walls. The war reserve magazine at Miller Point, one of the largest bunkers, was built with substantial reinforced concrete walls 5 feet thick.

Life at Fort Greely

Coping With Hardship and Isolation

Although the town of Kodiak (population 2,094 in 1940) was nearby, few social amenities were to be had at Fort Greely itself during the first months of its existence. However, the need to alleviate feelings of isolation, fatigue, and tension (after the Pearl Harbor attack) soon resulted in entertainment options for the troops.

Those interested in the news could buy the mimeographed post newspaper, the *Fort Greely Weekly Sun*, whose slogan was "Remember, no matter what the weather, The Sun will come out every Thursday or so in Fort Greely." To Pfc Colin L. Clemens went the credit (and two silver dollars) for renaming this early post publication. It sold for 10 cents a month and later gave way to the typeset *Kodiak Bear*. Because all military information was censored in both publications, and reporters wrote their stories in a lighthearted style, life at the post almost seemed carefree when reading about who had just gotten married, become the father of twins, gone on a vacation, or won a footrace up Barometer Mountain.

Other sources of information included magazines and a good selection of fiction and non-fiction available at two libraries that opened in Tent City in early October 1941. Creation of radio station KODK (later called WVCQ) followed in January 1942, the first station of the modern-day Armed Forces Radio Network. Fort Greely soldiers rehearsed their band music, singing, and skits in front of mess hall audiences before performing on the air.

Would-be gardeners made plans in February 1942 for a post garden. The "Fort Farm" was planted in the spring and each year thereafter, and the Kodiak Agricultural Club was formed. Also in February, soldiers welcomed the arrival of the Red Cross canteen. Soldiers continued to frequent local bars and dances held by Kodiak residents, and participate in Fourth of July celebrations and other events in town.

Home seemed closer for the troops with institution of twice-a-week airmail service in March 1942. At the sound of the ancient Ford trimotor mail plane, lonesome soldiers rushed to pick up their letters. By January 1943, an official post office was established at Fort Greely.

After only two shows, the original theater at Fort Greely, a black canvas tent, blew down in a williwaw (strong mountain wind) in the early Tent City days. Two

new theaters had opened by spring of 1942, although a soldier might have to stand in the rain for an hour to get a ticket. Other entertainment was provided by famous visitors to Fort Greely, including Errol Flynn, Bob Hope, Joe E. Brown and Olivia de Havilland. Visitors from Washington also arrived—four U.S. Senators, Alaska's Territorial Delegate, and even President Franklin D. Roosevelt, who visited in 1944 to review the Army troops and fish in Buskin Lake.

Prior to the establishment of Fort Greely's first chapel on May 15, 1942, services were held in the small wooden theater and sometimes in tents. A second chapel was



Shown are members of the 250th Coast Artillery band and servicemen stationed at Fort Greely; also shown are women from the Kodiak U.S.O. Group. 1943. (Kodiak Historical Society, Anna Belle Metrokin Collection)

opened on June 2, 1942, and both acquired Hammond electric organs in December 1942.

Sports enthusiasts played volleyball, badminton, horseshoes, and football, shot skeet, ice-skated, and participated in the Kodiak Olympics, a summer athletic carnival held in 1942 and 1943. A winter sports carnival was held in February 1943 at the new Fort Greely ski chalet, which opened 6 miles northwest of the post. Indoor pursuits included playing cards, cribbage, checkers, darts, and ping-pong.

Soldiers worked hard at Fort Greely and endured many hardships engendered by a harsh, northern climate. The severe weather, an enemy in itself, and difficult working conditions took their toll. Fort Greely's troops earned their rare moments of relaxation.

Armaments were destroyed when sub-posts were deactivated after the war's end. Remains of 6-inch gun at Castle Bluffs, Fort Tidball, include the gun shield, mount, and fragments of the gun itself. August 1985. (State of Alaska Office of History and Archaeology)



Kodiak Coastal Defense System Becomes History

Decommissioned and Recycled

Life at Fort Greely during World War II is now only a distant memory. Many of Fort Greely's buildings, much of its land, and even its name, were passed on to new owners. The Kodiak coastal defense system embarked on its journey into history on July 1, 1952, when the Army formally decommissioned Fort Greely's World War II facilities. Just 7 years after the end of the war and the departure of troops from Fort Greely, a new chapter in its story had begun, one of dissolution.

First to benefit from the hard work of Fort Greely's original occupants was the Navy, to which the property was transferred for use and maintenance on April 13, 1953. Two years later, Fort Greely's name was given to a post in Alaska's interior. The Army installation Big Delta, near Fairbanks, was re-named Fort Greely on August 6, 1955.

During the Cold War, an Aircraft Control and Warning Station was constructed at Cape Chiniak (on acreage formerly part of Fort J.H. Smith) by the Army Corps of Engineers as part of the Kodiak naval base. Due to advances in satellite technology, the station quickly became obsolete and was converted to a U.S. Air Force Satellite Tracking Station. The Cape Chiniak Tracking Station was active from the "Sputnik" days of late 1958 through May 1975.

The State of Alaska acquired Fort Abercrombie in 1969, creating a State Historical Park of this Fort Greely sub-post. In 1972, the Navy transferred ownership of the remainder of Fort Greely and the Naval Operating Base to the U.S. Coast Guard. The Navy airfield was eventually expanded into the Kodiak Airport. Little is left of the Fort Greely cantonment area; older naval base buildings were replaced with modern housing for the Kodiak U.S. Coast Guard base, the largest Coast Guard operation and support base in the world today.

Later, it was recognized that Fort Greely's coastal defenses had been built on land with exceptional recreational and developmental value and the Buskin Beach area was transferred to the Bureau of Land Management in 1975. Buskin River State Recreation Site was created on the southern portion of Buskin Hill near the location of the earliest World War II mobile armaments. This property is owned by the Coast Guard and is currently on long-term lease to the State of Alaska.

In 1989, 688 acres of the Buskin Beach area, incorporating all of Artillery Hill and the northern portion of Buskin Hill, were conveyed under the Alaska Native Claims Settlement Act (ANCSA) to Natives of Kodiak, Inc., which now owns the surface estate; Koniag, Inc. owns the subsurface estate. Many other Fort Greely sites are currently under Alaska Native ownership.

1952	Fort Greely decommissioned	1969	Fort Abercrombie designated as a State Historical Park	1975	Buskin Beach area transferred to Bureau of Land Management
1953	Fort Greely transferred to Navy	1972	Ownership of Fort Greely transferred to U.S. Coast Guard	1979	Aleuts settle lawsuit against U.S. government for \$8.5 million
1955	Fort Greely's name given to Big Delta post				
1957	Sputnik, Earth's first satellite, is launched by Russia				
1958	Cape Chiniak Satellite Tracking Station activated				
1950s		1960s		1970s	

Historical Resources Fast Diminishing

Can They Be Preserved?

After 1949, strategic use of long-range artillery harbor defenses was abandoned due to technological advances such as amphibious assaults and air war tactics. Seacoast fortifications like those found at Kodiak are now historical monuments. Coastal defense enthusiasts tour historical military fortifications all over the world, including the remains of Fort Greely.

Efforts have been made to preserve the history, structures, and artifacts of Fort Greely and the Kodiak coastal defense system. A portion of Fort Greely's unique World War II history has been preserved at Fort Abercrombie State Historical Park. The ready ammunition bunker at Miller Point within the park has recently been partially restored and was opened to the public in summer of 1999. In 1985, the Kodiak Naval Operating Base and Forts Greely and Abercrombie National Historic Landmark was created. In addition, the Baranov Museum in Kodiak includes World War II-era items in its collection.

However, much of Fort Greely's World War II past is rapidly disappearing. Among the causes of historical



Base-end station (B-22), Point Head, Long Island, Kodiak. October 1999. (Wayne Crayton, U.S. Army Corps of Engineers)

losses at Fort Greely are natural environmental degradation, vandalism, physical and chemical hazard removals by the U.S. Army Corps of Engineers (under its Defense Environmental Restoration Program for Formerly Used Defense Sites), and removals by current property owners. Fortunately, Fort Greely's more remote defense sites have remained relatively intact.

To help mitigate continuing historical losses, this brochure provides a written monument to the role played by Fort Greely's coastal defense system in the history of World War II, and in protecting the freedom enjoyed by Americans today.



Once a carefully concealed and highly secure bunker, the Harbor Defense Command Post (entrance shown here) has been vandalized, as have many other former coastal defense sites. May 1998. (U.S. Army Corps of Engineers)

Kodiak Naval Operating Base and Forts Greely and Abercrombie declared National Historic Landmark

1985

Legislation passed and funding becomes available for military site cleanups

1986

Portions of Fort Greely conveyed to Alaska Natives under ANCSA

1989

Corps of Engineers begins cleanup activities on Long Island and Cape Chiniak

1997

Memorandum of Agreement signed to protect historical structures during military cleanup activities at Kodiak

1997

Corps of Engineers begins cleanup activities at Buskin Beach

1999

1980s

1990s

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THE ROAD TO KODIAK

It starts beside a harbor
Where slim destroyers rest
And the winged birds of battle
Sit crouched within their nest;
Thru the old hills, the bare hills
By a lone squatter's shack,
The grey road, the winding road
That leads to Kodiak.

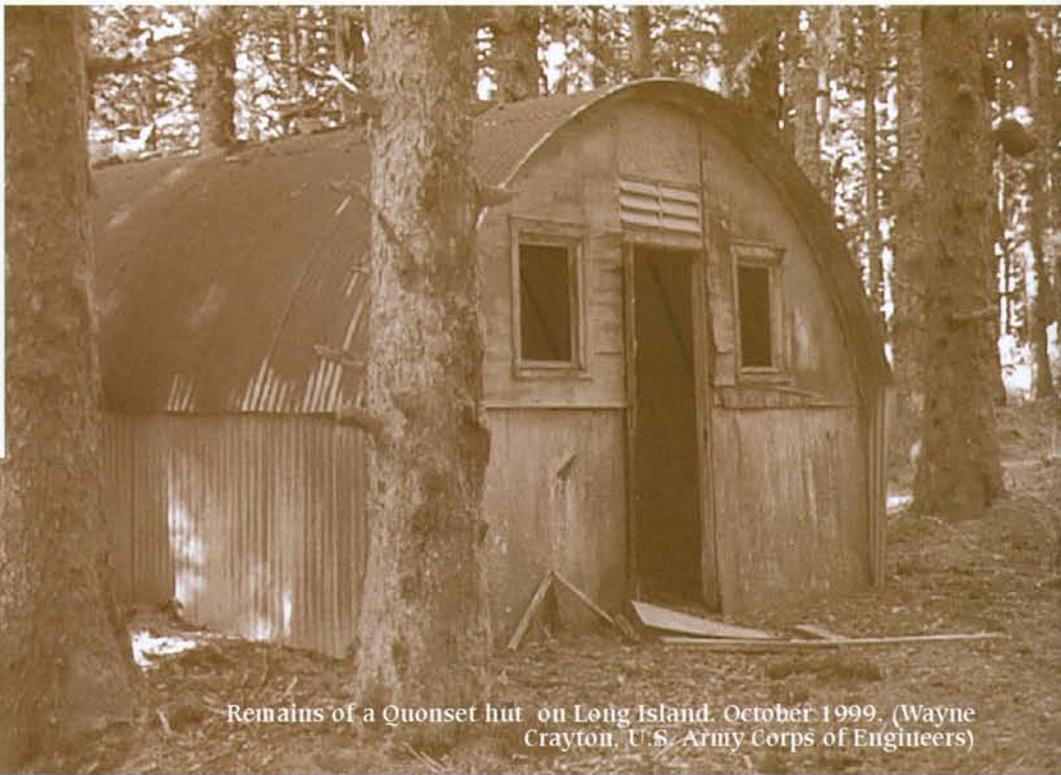
It hugs the dark, silent slope
Where the williwaws blow free
And hovers on a rocky ledge
That hangs above the sea;
Where the wet clouds, the dark clouds
Across from Chiniak
Caress the road, the narrow road
That runs to Kodiak.

The lights burn bright to beckon
To men who toil all day,
And there the lights burn daily
For those who needs must play.
Grey-haired men and fair-haired men,
Men brown-skinned, white and black
Take the road, the rocky road
That ends in Kodiak.

They who once have known the road
Will journey far and long,
And the old hills, the tall hills
Will hear no more their song;
But thousands who have passed there
Will in their dreams turn back,
To ride again the grey road,
The road to Kodiak.

Marsham E. Wright

from the *Kodiak Bear*,
December 15, 1941



Remains of a Quonset hut on Long Island, October 1999. (Wayne Crayton, U.S. Army Corps of Engineers)

Front Cover Photo:
Northeast view of a
former distant
electrical control
bunker at Piedmont
Point, May 1998.
(Russell H. Sackett,
State of Alaska
Office of History and
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