

Annual Report: Cultural Resources Survey Fort Richardson, Alaska 2009



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By

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List of Acronyms

AHRS – Alaska Heritage Resource Survey
ANC – Anchorage
APE – Area of Potential Effect
ARPA – Archaeological Resources Protection Act
ATV – All Terrain Vehicles
BP – Years before Present
CEMML – Center for Environmental Management of Military Lands
CM-Centimeter
cm BS – Centimeters below Surface
CMT – Culturally Modified Tree
DEM – Digital Elevation Model
DTA – Donnelly Training Area
FAI – Fairbanks
FP – Firing Point
FRA – Fort Richardson
FS – Field Sample
FWA – Fort Wainwright
ICRMP – Integrated Cultural Resources Management Plan
ITAM – Integrated Training Area Management
LA-ICP-MS – laser ablation inductively coupled plasma mass spectrometry
M – Meter
mm – Millimeter
MASL – Meters above Sea Level
MOUT –Military Operations on Urban Terrain
MRE – Meal-Ready-to-Eat
NHPA – National Historic Preservation Act
NRHP – National Register of Historic Places
SFAC – Soldier Family Assistance Center
SHPO – State Historic Preservation Officer
TARP – Training Area Restoration Plan
TFTA – Tanana Flats Training Area
UAC – Urban Assault Course
USAG – U. S. Army Garrison
USARAK – U. S. Army Alaska
USARAL – U. S. Army Alaska (historic)
USGS – U. S. Geological Survey
UTM – Universal Transverse Mercator
UXO – Unexploded Ordinance
WT – Warrior in Transition
XRF – X-ray fluorescence
XBD – Big Delta
XMH – Mt. Hayes
YTA – Yukon Training Area

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1.0 INTRODUCTION

In 2009, the U.S. Army Garrison Fort Richardson (USAG FRA) initiated several projects that triggered Section 106 (NHPA) archaeological and cultural resource analyses and surveys of proposed project areas. This report details each undertaking for which archaeological fieldwork was completed at Fort Richardson (FRA).

Survey and subsurface testing was conducted following procedures defined in USAG FWA's and USAG FRA's Integrated Cultural Resources Management Plan (ICRMP) (CEMML 2001). Where archaeological sites were identified within a project's area of potential effect (APE), evaluative testing was conducted to determine eligibility for listing in the National Register of Historic Places, based on National Register Criteria detailed in 36 CFR 60.4, and pursuant to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 CFR 800).

Archaeological field crews, comprised of employees of Colorado State University, Center for Environmental Management of Military Lands (CEMML), conducted surveys of areas potentially impacted (both directly and indirectly) by proposed undertakings. One crew comprised of three to five archaeologists, conducted fieldwork at FWA's and FRA's training areas.

Four Section 106 archaeological survey projects were the primary focus of archaeological work at FRA in 2009. These included: (1) power line installation and observation tower replacement at Baumeister Village and Cole Point; (2) upgrades of the Clunie Lake campground; (3) construction of a vehicle inspection station at the main gate; and (4) installation of a sewer line near the main gate. The locations of these projects are displayed in Figure 2.

Setting

FRA consists of 61,294 acres located to the north and east of the city of Anchorage (Figure 1). The climate is transitional between maritime (warm winters, high precipitation, and frequent high winds) and interior-continental (cold winters, low precipitation, and generally light winds). Based on long-term climatic records (1952–2000) for Anchorage (elevation 34 m), the mean Annual temperature is 35.9° F, with mean monthly temperatures ranging from 14.7° F in January to 59.5° C in July. Daily extremes over the period of record ranged from –34.6° F to 84.2° F. The thawing season lasts approximately 200 days beginning in early April and ending in late October. Mean annual precipitation is 15.7 in., with mean monthly precipitation ranging from .5 in. in April to 3 in. in August. The highest daily precipitation ever recorded was 3 inches. About half the precipitation falls as snow (Jorgensen et al. 2003).

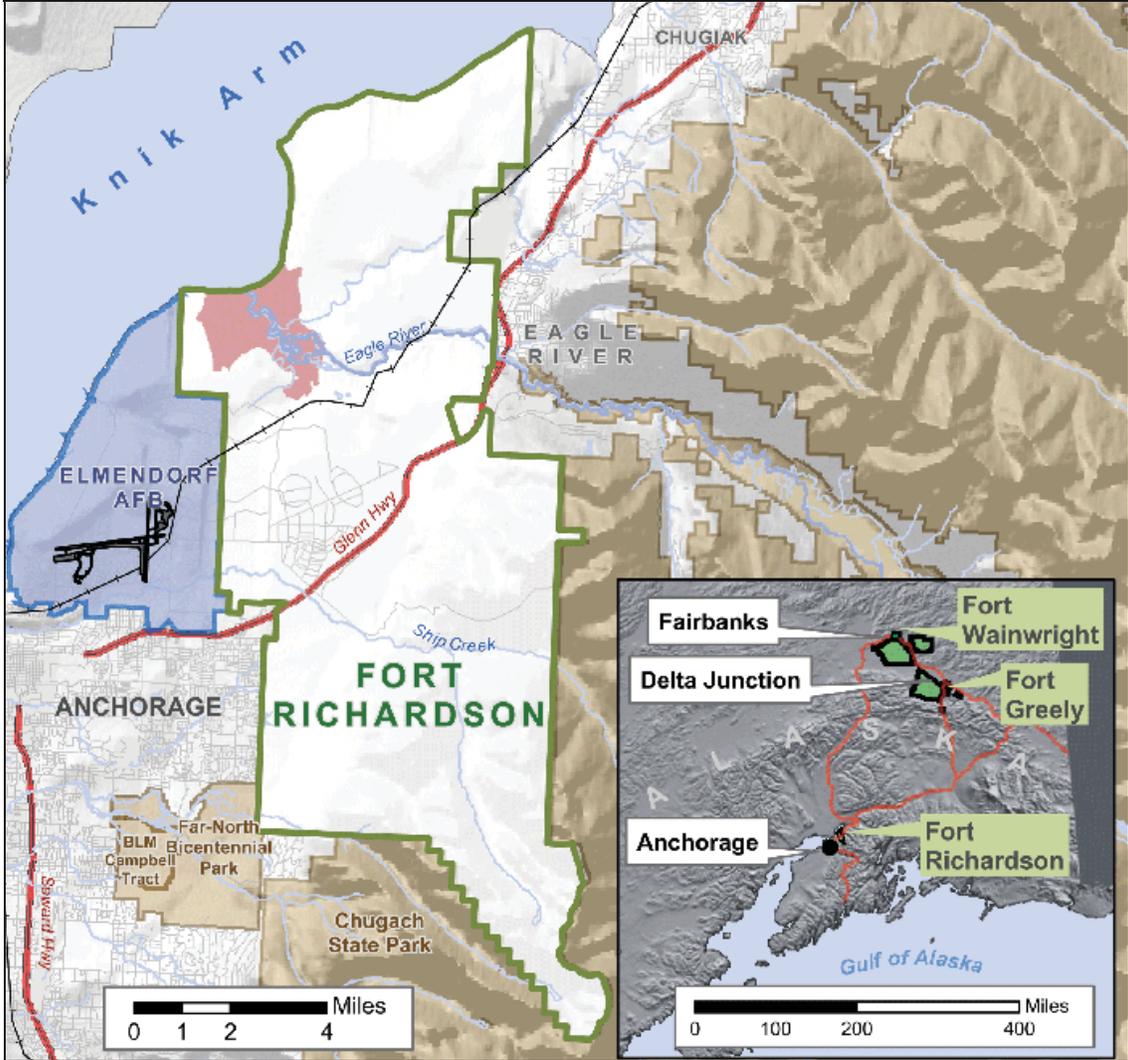


Figure 1. Location of Fort Richardson

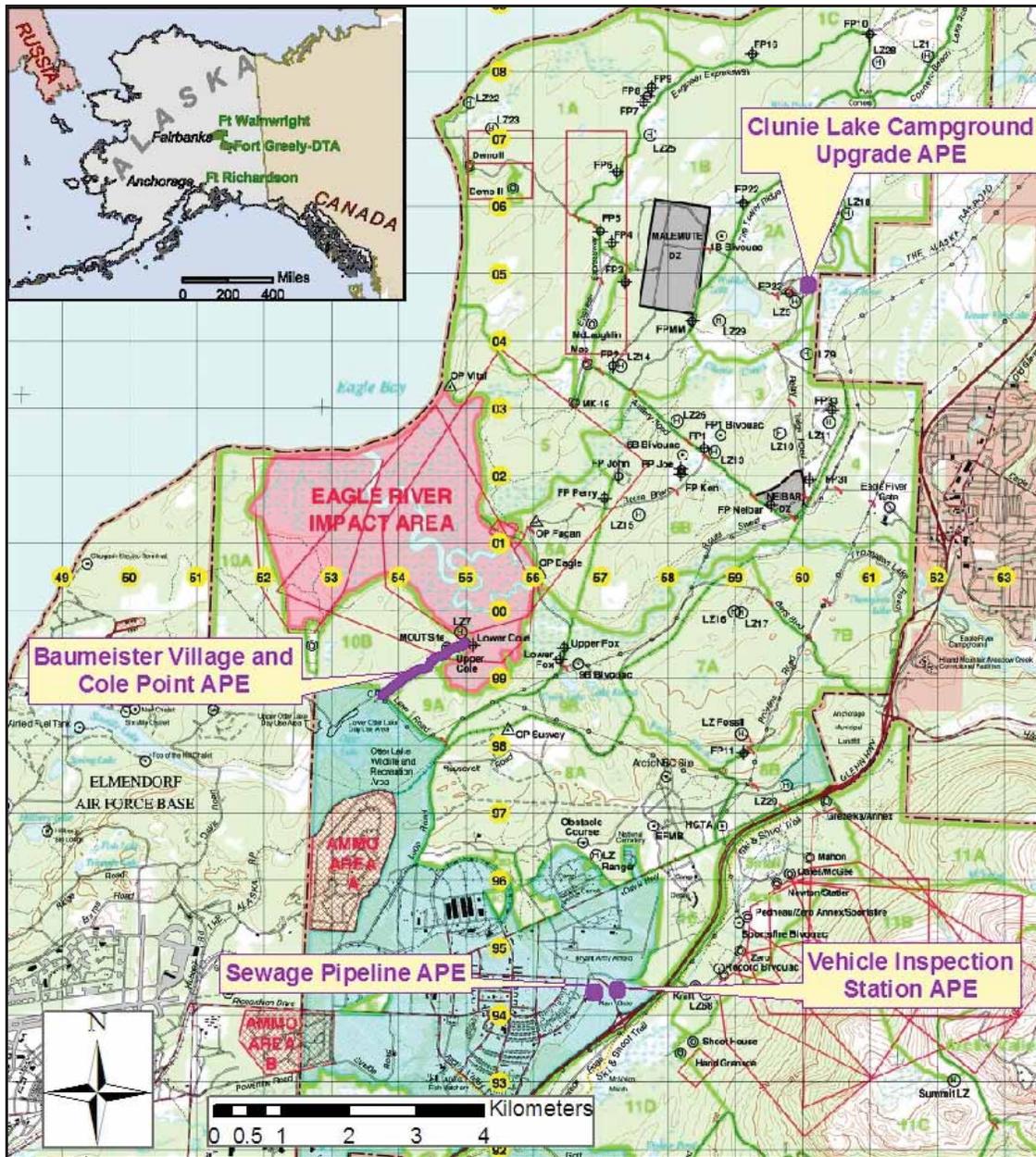


Figure 2. Location of proposed projects at FRA

FRA’s training lands fall into two main physiographic divisions. The eastern 22,048 acres are in the Chugach Mountains of the Kenai-Chugach Mountain section of the Pacific Border Ranges province (Wahrhaftig 1965). This steep, rugged terrain has mountaintops that range in elevation from 900 to 1615 masl (meters above sea level) at Tanaina Peak. These were formed by mountain-building processes resulting from the subduction of the Pacific Plate under the North American plate, and are primarily composed of Lower Cretaceous and Upper Jurassic flysch, greenstone, limestone, chert, granodiorite, glaucophane-bearing greenschist, and layered gabbro and serpentine (Jorgensen et al. 2003). Hill slopes are dominated by bedrock exposures and colluvial deposits. This area has shallow, poorly developed rocky soils low in primary nutrients

(NRCS 2000). The peaks and higher slopes are characterized as barrens (<5% vegetation), and alpine shrub tundra. Lower slopes have vegetation that ranges from thick stands of alder (*Alnus spp.*) and willow (*Salix spp.*), to poplar (*Populus spp.*), birch (*Betula spp.*) and spruce (*Picea spp.*) forests (Jorgensen et al. 2003).

FRA's western 39,246 acres fall within the Cook Inlet-Susitna lowland section of the Coastal Trough physiographic province (Wahrhaftig 1965). Also known as the Anchorage lowland, this terrain consists of alluvial fans, glacial outwash plains, moraine complexes and a subdued kame-and-kettle topography. Surficial deposits consist of Holocene-age aeolian silt (loess) and alluvial sands, silts and clays, underlain by late Pleistocene, poorly sorted glacial gravels, and alluvial well-sorted sands and gravels. Soils are characterized as well-drained silt loams on the higher moraines and hills, and poorly drained silt loams, mucky silt loams, and peats in lowland areas and depressions (NRCS 2000). The Elmendorf moraine, a hummocky, long series of ridges running east-west across FRA just north of the cantonment area, is the dominant topographic feature. Elevations of the moraine rise to more than 100 m, especially in the west. North of the Elmendorf moraine is a complex of moraine and glacial alluvium deposits that form a series of irregular hills and shallow depressions; however, these deposits are more subdued in topography than the Elmendorf moraine. Vegetation in the western portion of the fort consists of birch (*Betula spp.*), spruce (*Picea spp.*), aspen (*Populus tremuloides*) and alder (*Alnus spp.*) forests. Understory vegetation is moderate to dense, with various grasses and herbs, including fireweed (*Epilobium spp.*), lupine (*Lupinus spp.*), devil's club (*Oplopanax horridus*), high-bush cranberry (*Viburnum spp.*), and cow parsnip (*Heracleum maximum*).

To the west, FRA borders the Knik Arm of the Cook Inlet. The banks of the inlet are constantly eroding by wind, waves and tidal currents, or by the occasional earthquake, forming steep bluffs that range in height from 10-65 m. Rates of erosion have been calculated as high as .2-.4 horizontal meters/year (Dilley 1996). Knik Arm is characterized as having tidal ranges of up to 11 m. Knik Arm beaches on FRA are narrow and range from very muddy to gravelly. All of the streams, lakes and ponds on the Post drain into Knik Arm.

Prehistoric Background

Although glacial studies indicate that Cook Inlet may have been habitable by about 11,000 BP (Reger and Pinney 1996), few archaeological sites dating earlier than the late prehistoric period have been identified within the Cook Inlet region. The earliest and arguably the most significant site in the Cook Inlet area is Beluga Point, located approximately 10 miles to the southeast of FRA, near the entrance to Turnagain Arm. Though largely lacking datable material beyond 4000 BP, artifact assemblages at Beluga Point indicate consistent use of the location throughout the Holocene.

The earliest component at Beluga Point is the undated BPN-I core and blade component, estimated at 8000 to 10,000 BP, based on similarities with dated material found elsewhere in Alaska (Reger 1977, 1981). The presence of this assemblage, which could be designated as a regional variant of the American Paleoarctic Tradition (e.g. Anderson 1970a, 1970b; Dumond 1977), makes Beluga Point the lone early Holocene site in the Cook Inlet region identified to date. The only other site in the region that exhibits a similar assemblage is the early middle Holocene Long Lake site in the Matanuska Valley dating to approximately 6600 BP (Reger and

Bacon 1996). Despite the coastal location, these early microblade assemblages have been interpreted as reflecting the activities of terrestrial hunter-gatherers (Workman 1978). The middle Holocene (6000 to 4000 BP) in Cook Inlet is represented by components BPN-II and BPS-II at Beluga Point. Though also undated, the presence of microblades and ground slate indicate an association with the maritime-adapted Ocean Bay I and II assemblages in the Kodiak archipelago, the Takli Alder and Birch assemblages of Shelikof Strait (Reger 1981:185-186), and assemblages from the Alaska Peninsula that appear to be associated with the Arctic Small Tool tradition (Dumond 1977; Henn 1978).

Sites dating between 3000 and 1000 BP in the Cook Inlet region suggest the development and/or spread of Pacific Eskimo culture, seen in Norton affinities of a Beluga Point component dating prior to 1500 BP. It has been suggested that this period saw the spread of Norton peoples and technology from the Bristol Bay area (Reger 1981). Norton influence in Cook Inlet is overshadowed in this period by a number of sites exhibiting strong similarities to Kachemak tradition sites to the south. Kachemak components differ from those of the Kenai Peninsula and Kodiak in that they exhibit a toolkit that is apparently more adapted to terrestrial hunting and riverine exploitation than maritime subsistence. Components at the Knik Arm sites of Fish Creek (Dumond & Mace 1968) and Moose River (Dixon 1980:32-34; Reger & Boraas 1991) are representative of this adaptation, later defined as Riverine Kachemak by Reger and Boraas (1996), dating to between 2000 and 1000 BP on the Kenai Peninsula.

By far the most visible prehistoric site type in the Cook Inlet region is that of the late prehistoric Athabaskan Tradition. These sites, often characterized by rectangular house depressions, cache pits, few diagnostic artifacts, and an abundance of fire-cracked rock, are presumably associated with the Dena'ina Athabaskans who are thought to have replaced local Eskimo groups in the archaeological record by perhaps 750 or 1000 BP (McMahan et al. 1991). Linguistic evidence and Dena'ina oral history suggest that Athabaskan groups from the Copper River drainage and the upper Stony and Mulchatna Rivers began moving into upper Cook Inlet between 1,500 and 2,000 years ago (Kari 1988).

Historic Background

FRA falls within the traditional lands of the Dena'ina Athabaskan tribes of Upper Cook Inlet. In general, the Dena'ina traditionally pursued a semi-permanent lifeway, spending winters in permanent settlements and dispersing in the summer months with the onset of summer fish runs. Seasonal camps at favorable fishing locations were established along river banks, coastal edges and lake shores, and were reused annually. Once salmon runs had ended, groups would often focus on travel into the mountains to hunt caribou and mountain sheep; such trips to the Interior would also be a time for trading with other groups encountered during these seasonal hunts. Moose, bear, mountain goats and Dall sheep were often hunted year-round in areas outlying winter village settlements (Townsend 1981: 626-627). Specifically, settlements at Knik Arm have been well-summarized by Fall (1987):

“In the nineteenth century this group included those Tanaina living along the shores of Knik Arm and the Matanuska and Knik rivers. They used the present day Anchorage area for salmon fishing and the Chugach and Talkeetna Mountains for hunting. In 1978-9, the only Tanaina village in this area was Eklutna, but in the past

this was a highly populated area (Osgood 1937: 18) and many former village sites have been recorded (Kari 1988; Kari & Kari 1982).”

The Anchorage area held several village sites prior to the arrival of Russian and Euro-American settlers; Anchorage itself was called *Qatuk'e'usht* (also *Xa'tikiuet*) by the people of Kenai, and once supported a Dena'ina village (Yaw Davis 1994). The mouth of Ship Creek historically supported a significant salmon run, and was the focus of fish camps and seasonal subsistence fishing, prior to the advent of canneries and commercial fishing. Of special significance is the modern Athabaskan village of Eklutna, located to the north of FRA on the Knik Arm. The introduction of Russian and Euro-American settlers into the region began with the famous voyages of Bering and Cook; in 1786, St. George became the first permanent Russian settlement established at Cook Inlet, at the mouth of the Kasilof River, Kenai Peninsula.

In 1778 Captain James Cook, sailing for the Northwest Passage, encountered the Dena'ina people on his exploration of the inlet that now bears his name. This event marked the first recorded contact of the native peoples of the region with Europeans. However, earlier contact was likely made by Russian fur traders who began operating in the Alaskan territory following the turn of the 18th Century. In 1799 all Russian fur trading companies operating in the territory were consolidated into the Russian-American Company. For the next 68 years, the company governed the Alaskan territory from Sitka (in southeastern Alaska) under the colonial authority of the Tsar of Russia.

On October 18, 1867 control of the Alaskan territory was officially transferred from Russia to the United States, which had purchased the land for \$7.2 million. This event ushered in a period of more intensive Euroamerican impact on the region.

During the years immediately following the purchase, United States control resembled Russian, with the Alaska Commercial Company replacing the Russian-American Company. However, the pace of exploration and commercial development accelerated in 1884 with the organization of Alaska into a civil and judicial district (Bacon et al. 1986). Gold rushes of the late 1800's permanently changed the territory's demography. The first gold rush occurred in 1880 at what is now Juneau. However, it was rushes in the Interior that had the greatest impact on the Cook Inlet region. During the Circle City (1893) and Klondike (1896) gold rushes, the Cook Inlet area, and particularly the Dena'ina town of Knik, served as a supply center for miners and goods headed for the Interior. Many newcomers stayed in the territory and enhanced both the commercial and political visibility of the territory (Bacon et al. 1986).

In 1912, a territorial government was established in Alaska with development continuing in fishing, mining, and the timber industry. The Alaska Railroad, linking Seward, Anchorage and Fairbanks, was completed in 1923. During the Depression, public works projects sponsored by the federal government resulted in the construction of large and small facilities throughout Alaska, including schools, bridges, trails, harbors, and water systems (Bacon et al. 1986).

FRA was established by Presidential Executive Order in 1939 as Elmendorf Field. The site north of Anchorage was chosen because of relatively favorable weather patterns and access to two

important transportation assets: the Alaska railroad and Cook Inlet. The name FRA was adopted roughly a year later in memory of Brigadier General Wilds P. Richardson, a Texas engineer who surveyed and supervised construction of Alaska's first highway and served as a commander of the American Expeditionary Force, North Russia (Bacon et al. 1986).

During World War II, FRA was tasked with defending Alaska from invasion and coordinating the Alaskan war effort. Before the outbreak of World War II, military strength in Alaska was less than 3,000; it soon grew to 7,800 troops stationed on FRA alone, including the 4th Infantry, 81st Field Artillery, and 75th Coast Artillery (antiaircraft). As the war progressed, FRA's mission expanded significantly to become the logistics base for numerous Army garrisons and the Air Corps.

During the Cold War, FRA primarily served as a training and administrative support role for Army forces in Alaska. In 1947, FRA became headquarters for the newly established U.S. Army Alaska (USARAL). USARAL was superseded by the 172nd Infantry Brigade (Alaska) in 1974 and finally by the 6th Infantry Division (Light) in 1986. Following the Cold War, the 6th Infantry Division was deactivated and Army forces were reorganized under U.S. Army Alaska.

Fort Richardson Cultural Resources

Previous archaeological work at FRA includes at least eight projects since the late 1970s (Hedman et al. 2003; Holmes 1979; Reynolds 1996; Shaw 2000; Steele 1978, 1980; Veltre 1978). Of these surveys, only Steele, Reynolds, and Shaw reported the discovery of archaeological sites. Steele's 1980 work produced 4 sites, (ANC-263, 264, 265, and ANC-268), all of which were historic 20th century cabins. Reynolds (1996) recorded the multi-component (historic and late prehistoric) site ANC-822 near Ship Creek in the vicinity of the Moose Run Driving Range. Shaw (2000) recorded approximately 20 sites, the majority of which were Army related mounds, foxholes, and bunkers. Shaw's work also revealed a single prehistoric site, ANC-1175, composed of a single lithic flake and a small lithic spall. This discovery is associated with a cleared area located along the edge of the Elmendorf Moraine (Shaw 2000: 97). The work of Shaw, Steele (1978), and Dilley (1996) indicates that moraine features scattered across FRA represent higher probability locations for discovering prehistoric archaeological sites on FRA.

In addition to the known archaeological sites on FRA, there are numerous locations of historical and cultural significance, though the exact locations of many of these features have not been recorded to date. Portions of the Iditarod Historic Trail (ANC-270 and 280) are recorded and potentially exist on FRA. The Girdwood-Ship Creek Connecting Trail (ANC-280), descended the Ship Creek valley to the vicinity of FRA, where it presumably joined the Eagle River-Knik Trail (ANC-270). Though it is likely that ANC-270 lies outside of FRA lands, a connecting trail from Anchorage to ANC-270 is known to have existed. This connecting trail is recorded as following the Eagle River drainage (presumably from Knik Arm) to Lake Clunie, and on to Birchwood (CEMML 2001:26). This route is likely to have followed Clunie Creek north from Eagle River to Lake Clunie, a route that crosses the northern portion of FRA.

A number of historic properties are located on or near Army lands in Alaska; many of these properties are historic structures and buildings pre-dating or associated with World War II and

Cold War era Army activities (see e.g., Hollinger 2001; Shaw 2000). As found during previous surveys on FRA (e.g., Shaw 2000), evidence of previous military training activity was prolific throughout the proposed training project areas. Heavy disturbance from trench building, foxholes and unexploded ammunitions (UXO) were found frequently during survey. Although there is a possibility that some of these features may date to training activities undertaken during World War II and the immediate post-war period, none of these features can be clearly assigned to a specific date. Features such as these were referred to as ‘Base Ground Defense Sites’ in Shaw (2000), and were uniformly determined to be ineligible to the NRHP (Shaw 2000: 16-22, 121). As Shaw explained:

“[such sites are] temporary, theater-of-operations type structures, which are in a deteriorated condition with the construction date being uncertain within about 10 years. Most [military training] sites...have lost physical integrity through neglect after abandonment. The sites have also lost other aspects of integrity regarding design, setting, materials, workmanship, feeling and association over the years by neglect and/or direct actions resulting from operating a military base with changing physical requirements associated with execution of the primary mission. Such actions range among planned demolition of buildings judged to be excess property, inadvertent destruction of structures during new uses of the land such as for gravel pits, construction of new facilities which intrude into and radically change the site setting that existed during WWII, and direct efforts to “clean up” the sites when use stopped” (Shaw 2000: 16).

Features associated with past military training operations, falling under Shaw’s ‘Base Ground Defense Site’ classification (i.e., foxholes and bunkers), were found throughout the proposed project areas reviewed in 2008, and show no clear pattern or relationship as identified in the field. Like Shaw, we find that archaeological evaluations of these features would not contribute significantly to our understanding of military training history in WW II, and do not qualify under National Register criteria D (36 CFR § 60.4). Similar to Shaw’s findings, the continued use of these areas for subsequent base activities has heavily impacted the original structural integrity of the features. These features have been determined ineligible for listing in the NRHP .

2.0 BAUMEISTER VILLAGE AND COLE POINT

Undertaking

USAG FRA has proposed upgrades to Baumeister Village (a Military Operations on Urban Terrain, or “MOUT” site) and Upper Cole Observation Point located within the western portion of FRA, Alaska (see Figure 2). The proposed project includes extending electrical power lines to provide power to the Baumeister Village MOUT facility and the Upper Cole Observation Point. The proposed project is primarily sited in areas disturbed by previous construction; however, the APE includes approximately 3.44 acres of vegetation that will be cleared for the power line right-of-way (Figure 3). The right-of-way is 30 feet wide along the existing road that services the sites and extends roughly 5,000 feet long from Otter Lake Road to Cole point. The power lines themselves will be supported by above-ground utility poles to be installed within the right-of-way. The proposed project also includes replacing the existing range tower at Upper Cole Observation Point with a new range tower. The dimensions of the proposed metal tower are similar to those of the current tower, with a base of approximately 30 feet by 40 feet and a height of about 25 feet. The new tower will be sited on previously disturbed ground in the footprint of the existing tower. The APE for the proposed project is found on USGS topographic map Anchorage B-8, SW1/4 SEC 18, T14N, R2W, SE 1/4 SEC 13, NE 1/4 SEC 24, T14N, R3W, Seward Meridian, roughly centered at UTM coordinates Zone 6N 0354366N, 6799142E.

Methods

On May 18, 2009, a team of three CEMML archaeologists under the direct supervision of Edmund Gaines, M.A., R.P.A. surveyed the proposed project APE. Visual survey coverage, consisting of parallel pedestrian transects spaced at 10-20 meters, covered 100% of the APE. Lisa Graham, FRA Architectural Historian, reviewed the eligibility of the Cole Point observation tower.

Results

No cultural resources were identified within the proposed project area APE. The APE appears to generally have a low probability for cultural resources due to extensive ground disturbance resulting from past construction and military training activities.

The entire area of Cole Point has been cleared and leveled. A gravel road loops around the cleared area roughly 40m x 60m (Figure 4). The wooden observation tower slated for replacement is situated in the northern portion of the leveled area (Figure 5). Two large bunkers are located just to the north of the observation tower.

The power line APE is located along the north side of Baumeister Road, which trends east-west between Cole Point and Otter Lake Road (Figure 3). The power line APE is situated entirely within areas of previous ground disturbance as evidenced by scrap piles (Figure 6), numerous bulldozer cuts (Figure 7), push piles, and disturbance vegetation such as alder, willow, and low hardwoods.

The Cole Point observation tower was constructed in 1980. It is a standard military structure commonly utilized in training lands and is not exceptionally significant.

Summary and Recommendations

USAG FRA determined that no historic properties will be affected by the proposed undertaking. Based on the results of the field observations and archival research, there is no reason to believe that the proposed installation of a power line to Baumeister Village and Cole Point, and replacement of Cole Point observation tower warrant further consideration under Section 106 of the National Historic Preservation Act (16 USC § 470, as amended 2000), and regulations codified in 36 CFR 800 (as amended 2004). No cultural resources were noted or discovered within the project APE. No indications of burials or other human remains were observed within the surveyed area; barring an unforeseen discovery during the undertaking, there will be no further considerations expected under the Native American Graves Protection and Repatriation Act (25 U.S.C. § 3001 *et seq.*).

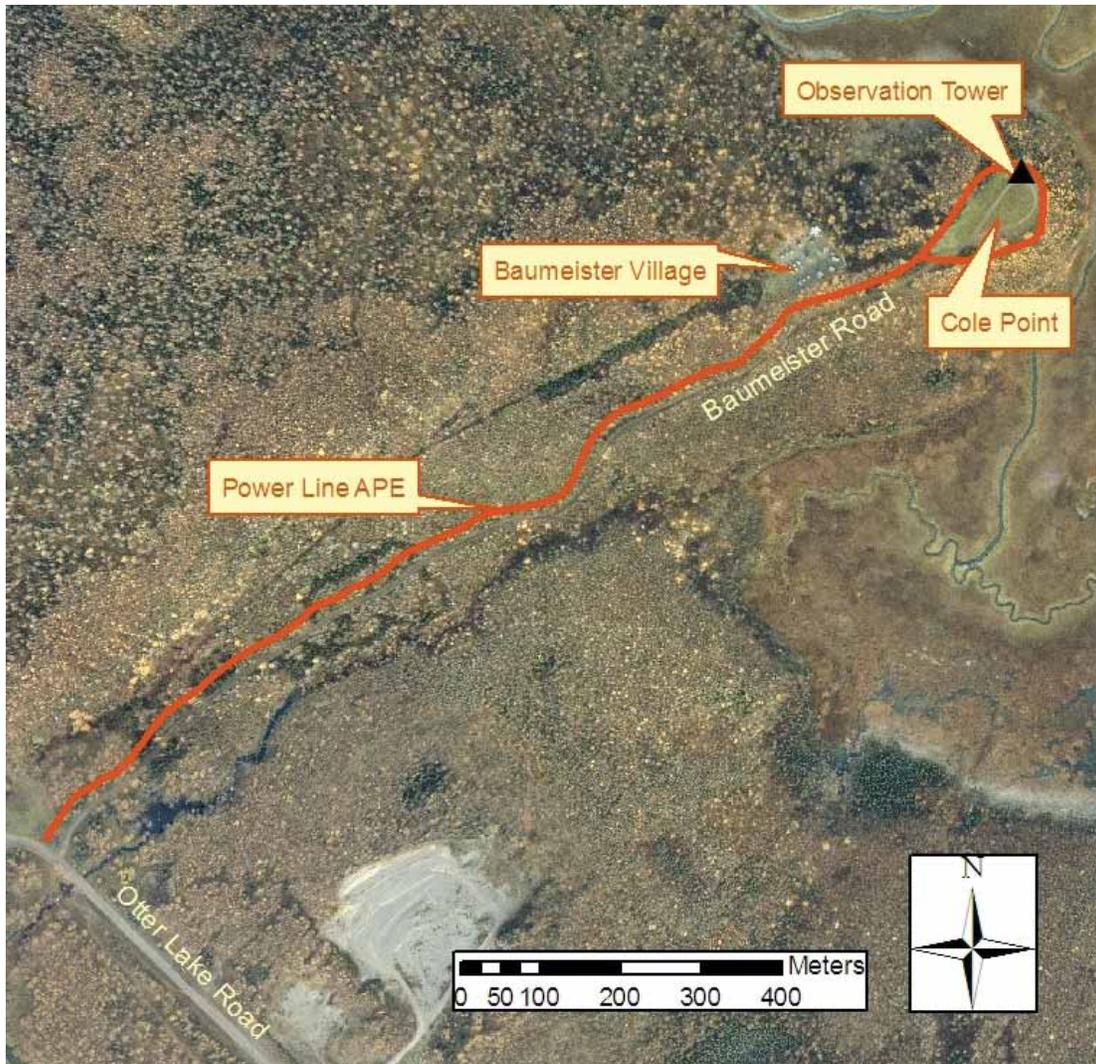


Figure 3. Baumeister Village and Cole Point APE



Figure 4. Cole Point overview (view to southwest)



Figure 5. Cole Point viewshed with observation tower in foreground (view to northeast)



Figure 6. Scrap pile: evidence of modern use



Figure 7. Power line APE: vegetation overview/bulldozer cut

3.0 CLUNIE LAKE EXPANSION

Undertaking

USAG FRA Outdoor Recreation has proposed a self-help project to upgrade the campground at Clunie Lake, FRA (see Figure 2). The proposed project consists of building two cabins, ten tent platforms, and a 420m long road at the existing Clunie Lake campground (Figure 8). The cabins will be 20 foot by 20 foot, built on a pier and beam foundation, the tent platforms will be 15 foot by 15 foot lumber platforms, also built on a pier and beam foundation, and the road construction will entail upgrading an existing trail to 30 foot width, for a distance of 420 linear meters. In total the APE for the proposed project entails less than 5 acres of disturbance found on USGS topographic map Anchorage B-7, NW 1/4 SEC 34, T15N, R2W, Seward Meridian, roughly centered at UTM coordinates Zone 6N, 0360084E, 6804799N.

Methods

On May 20, 2009, a team of three Colorado State University, CEMML, archaeologists under the direct supervision of Edmund Gaines, M.A., R.P.A. surveyed the proposed project APE. Visual survey coverage, consisting of parallel pedestrian transects spaced at 10-20 meters, covered 100% of the APE. Subsurface testing consisted of three 50cm x 50cm test pits excavated in areas of higher probability in undisturbed areas along the lake shore.

Results

No cultural resources were identified within the proposed project area APE during pedestrian survey or subsurface testing. The location of the APE— adjacent to Clunie Lake, which would have provided a source for both water and possibly fish resources—seems to have moderate potential for containing cultural resources; however, the area exhibits ground disturbance from construction of the existing campground, and there are no prominent topographic features that would have been attractive for human activities.

The boat launch parking area has been cleared and leveled. Permanent metal barbeque grills and picnic tables have been installed around the parking area. An abandoned road from the parking area bisected the wooded area to the west (Figure 9).

To the west of the APE there are hundreds of bark-stripped birch trees (Figure 10). The team estimated that one in 3-5 birch trees in the woods adjacent to the boat launch parking area was stripped of its bark. The area to the southeast of the existing road also contained bark-stripped birch trees; however, at a much lower density—roughly one in 15 (Figure 11). Modification was highly variable; some trees had only strips removed, while others were stripped around their entire circumference, with bark removals ranging from 7cm to 2m in height. The circumference of bark-stripped trees ranged from 61cm – 1m (Figure 12). The Clunie Lake campground is an area that has seen repeated use in the past by Boy Scout troops. Because the trees are located in such an area, it is probable that the bark stripping is a result of their activities. Especially so since stripping on many of the trees indicates a lack of experience in bark removal which would not likely be present if the bark was harvested by members of the local Native community. Subsurface testing in the vicinity of the bark-stripped trees yielded no cultural material. None of

the bark-stripped trees, therefore, constitutes a historic property. The proposed development entails minimal vegetation clearing and none of the bark-stripped trees will be affected.

Test pit stratigraphy (Figure 13) typically consists of 15-30 cm of silt overlying poorly sorted gravel, with soil development consisting of a dark brown O horizon from 0 to 7cm BS, a dark a brown A horizon 7-10cm BS, and a C horizon (mottled yellow and gray silt with poorly sorted gravels) 10- 29cm BS.

Summary and Recommendations

USAG FRA determined that no historic properties will be affected by the proposed undertaking. Based on the results of the field observations and archival research, there is no reason to believe that the proposed upgrade to the Clunie Lake campground warrants further consideration under Section 106 of the NHPA (16 USC § 470, as amended 2000), and regulations codified in 36 CFR 800 (as amended 2004). No cultural resources were noted or discovered within the project APE. No indications of burials or other human remains were observed within the surveyed area; barring an unforeseen discovery during the undertaking, there will be no further considerations expected under the Native American Graves Protection and Repatriation Act (25 U.S.C. § 3001 *et seq.*).



Figure 8. Clunie Lake campground upgrade APE and area of bark-stripped birch trees



Figure 9. Clunie Lake boat launch parking area (view to west)



Figure 10. Bark-stripped birch trees near parking area (view to southwest)



Figure 11. Wooded area south of Clunie Lake parking area (view to south)



Figure 12. Bark-stripped birch tree



Figure 13. Clunie Lake test pit stratigraphy

4.0 VEHICLE INSPECTION STATION

Undertaking

USAG FRA has proposed to construct a vehicle inspection facility near the Main Gate of FRA, Alaska (see Figure 2). The proposed vehicle inspection facility will consist of a pre-engineered metal building measuring approximately 36 feet wide by 40 feet long, set on a concrete floor. Two 8 foot x 10 foot heated enclosures would be provided for the comfort of visitors and security personnel. The facility will be outfitted with electricity and communications systems. Several asphalt traffic lanes will permit the flow of traffic to and from the inspection facility. Approximately 0.2 acres of vegetation would be cleared. In total, the APE consists of 0.75 acres (Figure 14); however, only .2 acres are located in vegetated areas that are undisturbed by previous construction. The APE is found on USGS Anchorage B-8 topographic map, SE1/4 SEC 32, T14N, R2W, Seward Meridian, roughly centered at UTM coordinates Zone 6N, 0357624 E, 6794206 N.

Methods

On May 18, 2009, a team of three Colorado State University, CEMML, archaeologists under the direct supervision of Edmund Gaines, M.A., R.P.A. surveyed the proposed project APE. Visual survey coverage, consisting of parallel pedestrian transects spaced at 10-20 meters, covered 100% of the APE. Subsurface testing consisted of two 50cm x 50cm test pits excavated in vegetated areas on the eastern portion of the APE. Lisa Graham, FRA Architectural Historian, also reviewed the undertaking.

Results

No cultural resources were identified within the proposed project APE during pedestrian survey or subsurface testing. Because of the limited viewshed, the distance to water and extensive disturbance from previous construction, the APE appears to have little probability of containing cultural resources.

Over 75% of the APE is disturbed from previous construction and consists of the existing road, VCC inspection station, and parking area. The understory has been removed from most of the vegetated areas of the APE; however, there are some limited areas that have immature spruce, aspen, and willow, along with grasses and sparse, small wild rose bushes (Figure 15). An abandoned road bisects a small wooded area and parallels the entrance road (Figure 16).

Test pits revealed disturbed stratigraphy consisting of homogenous brown silt overlying frozen ground at 35-40cm BS (Figure 17).

In May 2009, the Alaska SHPO concurred with the USAG FRA finding that there is no historic district within the FRA cantonment. The only structures within the vicinity of this new construction are the guard shacks and visitor center which are not historic as they were constructed in 2008.

Summary and Recommendations

USAG FRA determined that no historic properties will be affected by the proposed undertaking. Based on the results of the field observations and archival research, there is no reason to believe that the proposed construction of a vehicle inspection station at the main gate of FRA warrants further consideration under Section 106 of the NHPA (16 USC § 470, as amended 2000), and regulations codified in 36 CFR 800 (as amended 2004). No cultural resources were noted or discovered within the project APE. No indications of burials or other human remains were observed within the surveyed area; barring an unforeseen discovery during the undertaking, there will be no further considerations expected under the Native American Graves Protection and Repatriation Act (25 U.S.C. § 3001 *et seq.*).



Figure 14. VCC vehicle inspection APE, construction areas are indicated by colored lines, new disturbance is in areas of turquoise lines on right hand side of map



Figure 15. Overview of vehicle inspection APE (view to southeast)



Figure 16. Overview of abandoned road in wooded area (view to northwest)



Figure 17. Vehicle inspection station test pit stratigraphy

5.0 SEWAGE PIPELINE PROJECT

Undertaking

USAG FRA has proposed to install a new sewage pipeline to service the Visitors Center at the Main Entrance to FRA Alaska (see Figure 2). The insulated sewer line would tie into FRA's existing sewer system, replacing the Visitors Center's existing holding tank system. The proposed line will be installed using one of two proposed routes (see Figure 18) contingent upon analysis of feasibility, cost, and environmental impacts. Route A is approximately 1,800 feet in length, while Route B travels approximately 1,400 feet. Installation along either route would require clearing a 12 foot corridor and excavating a trench roughly 2 feet in width and 10 feet in depth, to be backfilled after installation. The APE for either Route A or Route B entails less than 0.70 acres found on USGS Anchorage B-8 topographic map, SE1/4 SEC 32, T14N, R2W, Seward Meridian, roughly centered at UTM coordinates Zone 6N, 035694 E, 6794246 N.

Methods

On May 18, 2009, a team of three Colorado State University, CEMML, archaeologists under the direct supervision of Edmund Gaines, M.A., R.P.A. surveyed the proposed project APE. Visual survey coverage, consisting of parallel pedestrian transects spaced at 10-20 meters, covered 100% of the APE.

Results

No cultural resources were identified within the proposed project area APE. Because of the limited viewshed, the distance to water and extensive disturbance from previous construction, the APE appears to have little probability of containing cultural resources.

Both routes are in areas of extensive ground disturbance and previous construction activities. Alternative A is located entirely along a sidewalk in an area that has been cleared and leveled (Figure 19). Alternative B has been scraped and cleared. A large berm parallels route B for most of its length (Figure 20). The remainder of route B is located along an unpaved road (Figure 21). The western portion of both routes is within 100m of a newly developed neighborhood (Figure 22).

Summary and Recommendations

USAG FRA determined that no historic properties will be affected by the proposed undertaking. Based on the results of the field observations and archival research, there is no reason to believe that the proposed installation of a sewer line near the main gate of FRA warrants further consideration under Section 106 of the NHPA (16 USC § 470, as amended 2000), and regulations codified in 36 CFR 800 (as amended 2004). No cultural resources were noted or discovered within the project APE. No indications of burials or other human remains were observed within the surveyed area; barring an unforeseen discovery during the undertaking, there will be no further considerations expected under the Native American Graves Protection and Repatriation Act (25 U.S.C. § 3001 *et seq.*).

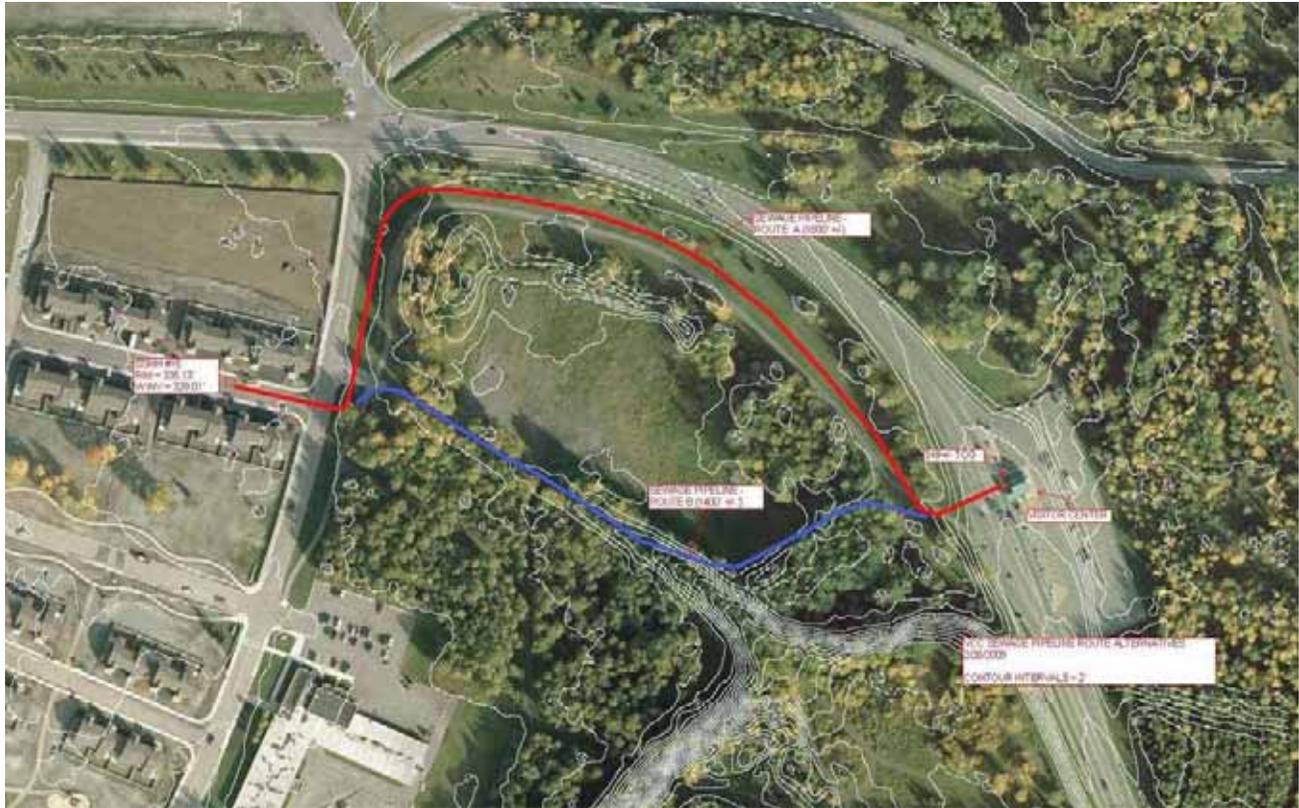


Figure 18. Sewage pipeline APE of alternative routes (Route A=red; Route B=blue)



Figure 19. Overview of Alternative A (view to southeast)



Figure 20. Disturbance along Alternative B (view to south)



Figure 21. Unpaved road along Alternative B route (view to southeast)



Figure 22. Neighborhood adjacent to APE of both routes (view to west)

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