Annual Report

Archaeological Survey and Evaluation: Fort Richardson and Fort Wainwright, 2005

January 2006

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1.0 INTRODUCTION

In 2005, the U.S. Army Garrison Alaska (USAG-AK) initiated several projects that triggered archaeological and cultural resources analyses and surveys of proposed project areas. This report details each undertaking for which archaeological field work was completed at Fort Richardson and at Fort Wainwright, excluding the Donnelly Training Area (DTA; within the boundaries of the former Fort Greely). A separate annual report for work conducted in 2005 is being prepared for the Donnelly Training Area.

Survey and subsurface testing was conducted, following procedures defined in USAG-AK's archaeological field methodology (Raymond-Yakoubian and Robertson 2005) and 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 the Center for Environmental Management of Military Lands (CEMML), Colorado State University, conducted surveys of areas potentially impacted (both directly and indirectly) by proposed undertakings. One crew, comprised of four to five archaeologists, conducted work at Fort Richardson's training areas and at Fort Wainwright in the cantonment and the Yukon Training Area (YTA).

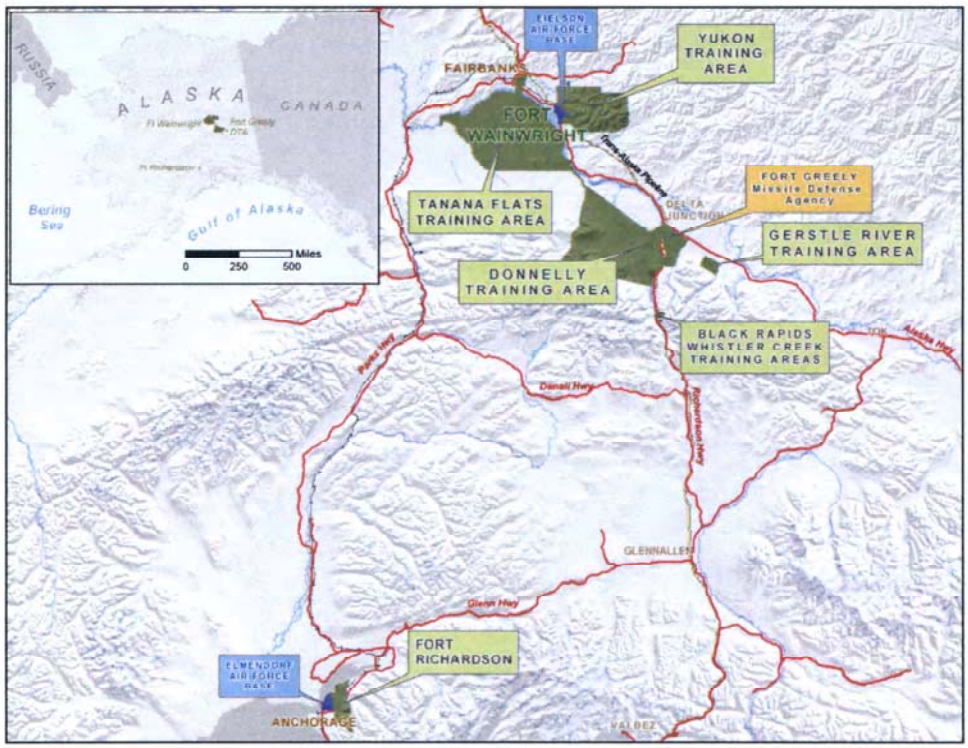

Figure 1. Location of Forts Richardson and Wainwright and associated training areas

2.0 FORT WAINWRIGHT

Introduction

A variety of smaller-sized construction projects in the Yukon Training Area (YTA) and on the main post were the focus of the archaeological work at Fort Wainwright in 2005. Work at Fort Wainwright's Donnelly Training Area (DTA) will be discussed in a separate annual report.

Setting

Fort Wainwright is located in central Alaska, north of the Alaska Range in the Tanana River valley. The Post lies 120 miles south of the Arctic Circle near the cities of Fairbanks and North Pole in the Fairbanks North Star Borough. The installation consists of the Main Post, Tanana Flats Training Area (TFTA), YTA, Dyke Range and DTA (the latter of which lies near Delta Junction, within the boundaries of the former Fort Greely).

Fort Wainwright has the northern continental climate of the Alaskan Interior, characterized by short, moderate summers, long, cold winters, and little precipitation or humidity. Average monthly temperatures in Fairbanks range from –11.5°F in January to 61.5°F in July, with an average annual temperature of 26.3°F. The record low temperature is -66°F and the record high is 98°F. Average annual precipitation is 10.4 inches, most of which falls as rain during summer and early fall. Average annual snowfall is 67 inches, with a record high of 168 inches during the winter of 1970-71 (CEMML 2002).

Fort Wainwright's training lands fall within an area occupied at the time of Euro-American contact by Lower-Middle Tanana Athabascans, including 'bands' described generally as the Salcha, Big Delta-Goodpaster, Wood River and Chena bands (McKennan 1981; Andrews 1975; Mischler 1986). Traditional settlement patterns were focused on a widely mobile season round, with the fall caribou hunt playing a pivotal role in subsistence preparations for the winter, while summer activities were focused at fish camps, and on berry and root collecting and sheep hunting (McKennan 1981). These activities were frequently communal in focus, with several local 'bands' connected by common interest, geography and intermarriage. Despite anthropological attempts to define 'boundaries' for the peoples living in the lower Tanana River valley, natural terrain served as the only definable 'boundary' to settlement patterns (McKennan 1981).

As Euro-American traders, miners, missionaries and explorers moved into the Tanana River valley, the traditional lifeways of local Athabascan groups were disrupted. Access to trade goods and the development of the fur trade not only affected traditional material culture, but also began to dramatically affect subsistence activities and settlement patterns. Similarly, the arrival of missionaries in the Alaskan interior profoundly affected traditional social organization. The introduction of mission schools for Native children and the doctrine of new religious beliefs contributed to an erosion of traditional settlement patterns and practices (McKennan 1981).

As Fairbanks grew in the first decade of the 20th century, several agricultural homesteads were developed on lands now encompassed by sections of the Fort Wainwright cantonment. These homesteads provided Fairbanks with a variety of agricultural products and wood for fuel, but were subsumed when lands were withdrawn for the creation of Ladd Field, which later became Fort Wainwright (Price 2002).

Development in the Alaskan Interior increased dramatically with the advent of World War II and subsequent military build-up in Alaska. Of particular significance was the development of airfields near Delta Junction (Fort Greely), Fairbanks (Ladd Field, later Fort Wainwright), and 26 miles southeast of Fairbanks (Eielson Air Force Base). These locations began as lend-lease bases and cold weather testing centers, but soon expanded with the increased need for military support during World War II and later the Cold War (Price 2004).

Archaeological research on Fort Wainwright's training areas has resulted in numerous technical reports (Bacon 1978; Bacon and Holmes 1979; Dixon et al. 1980; Frizzera 1973; Higgs et al. 1999; Holmes 1979; Potter et al. 2000; Rabich and Reger 1978; Reynolds 1983, 1984, 1985; Robertson et al. 2004; Staley 1993; Steele 1982, 1983; Yarborough 1975), scientific papers (Holmes and Anderson 1986; West 1967, 1975), and the identification of over 250 archaeological sites. Work on Fort Wainwright has been largely stratified sampling in nature, resulting at times in as little as 1 percent of the survey universe being inventoried. This work has largely focused on known sites and areas thought to be of the very highest potential for containing archaeological sites. Areas of less than ideal site potential have often been neglected and sites and districts that may be eligible for nomination to the National Register of Historic Places have been incompletely documented or left un-evaluated. Thus, while a large number of important sites have been identified on Fort Wainwright, a number of important gaps exist in the cultural resource inventory.

Despite its incomplete nature, this rich archaeological record represents all of the accepted prehistoric cultures of the Alaskan Interior. Of importance is the role played by archaeological resources located on Army lands in the definition of the Denali Complex of the American Paleoarctic Tradition (Anderson 1970; West 1967, 1981). Though not located on Army lands, two of the oldest well-dated sites in North America, Swan Point and Broken Mammoth, dated to between 11,500 and 12,000 before present (BP), are located just to the north of DTA East in the vicinity of Shaw Creek (Holmes 1996, 1998; Holmes et al. 1996; Yesner et al. 1999). Sites reflecting the influence of what has been termed the Northern Archaic Tradition (e.g. Anderson 1968; Workman 1978), dating to perhaps 6,000 to 2,000 BP, are also present on Fort Wainwright training lands, as are late prehistoric Athabaskan (e.g. Andrews 1975, 1987; Cook 1989; Mishler 1986; Sheppard et al. 1991; Shinkwin 1979; Yarborough 1978) and Euro-American archaeological sites (Gamza 1995; Phillips 1984). The significance of these known sites on Army Withdrawal Lands is attested by the fact that despite that nearly 100 of these sites remain to be evaluated, at least 75 individual sites and 3 archaeological districts have been deemed eligible for inclusion on the National Register of Historic Places, and a fourth archaeological district remains to be evaluated.

Historic research dealing with Fort Wainwright includes recent historic context studies that deal with homesteading (Price 2002), early mining (Neely 2001), and early transportation on Fort Wainwright (Neely 2003). Although mining was perhaps the most important economic endeavor of the late 19th century and early 20th century in the Fort Wainwright area, only three archaeological sites associated with mining have been recorded on Army managed lands in Alaska (Neely 2001). Several early transportation routes, roadhouses, and other structures associated with travel are known to exist in the vicinity of Fort Wainwright and the DTA, including the Donnelly-Washburn and Bonnifield trails, for example (Neely 2003). Military training and construction activities have also resulted in several potential site types, including downed aircraft, defensive fighting

positions, and training and target debris. The majority of these 'Base Ground Defense Sites' are difficult to assign to a specific context, and have often been consistently used for military training exercises; such sites have thus been determined ineligible for listing in the National Register of Historic Places (see Shaw 2000).

2.1 Bivouac Pad and Access Trail, Yukon Training Area

USAG-AK has proposed to construct a hardened bivouac pad and to upgrade an associated access trail in the Yukon Training Area (YTA), Fort Wainwright (Figure 2). The proposed bivouac area would be hardened to approximately 500 square feet in size. An existing but inadequate access trail leading to the bivouac site would also be upgraded. The project area is located off of Manchu Road, in the vicinity of Manchu Lake, in the western portion of the Yukon Training Area (map quadrangle FAI C-1, T. 2 S., R. 4 E., Sec. 31). The purpose of this action is to support troop-training activities within the YTA.

Survey and Field Methods

In the summer of 2002 the proposed project area for the bivouac hardening and access trail improvement project was investigated by an archaeological survey crew, employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University). This cultural resources survey was part of a survey for a larger range development project. All of the area shown in Figure 2 was archaeologically surveyed in the summer of 2002 (Hedman et al. 2003).

Parallel pedestrian transects spaced at 10-20 meters were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. Shovel tests were approximately 40cm x 40cm, and were screened through ¼" hardware cloth.

Cultural Resources

There is one known site in the vicinity of the proposed project. This site has been determined to be outside of the project area.

FAI-00157
Latitude:
Longitude: (NAD 27)
Determination: Not evaluated

This site consists of one chert flake and a segment of an obsidian microblade. The artifacts were found on the surface of a clearing in 1978. During survey activities in 2002, this site was re-located based on map coordinates and the presence of previously excavated test units. The site area was shovel tested extensively in 2002, however no additional cultural material was located. UTM coordinates for the site are Zone 6, (WGS84). This site was likely disturbed by previous clearing activities and all remaining cultural material collected in 1978. This site is located outside of the project area and no additional work is recommended.

Results

Pedestrian survey and sub-surface testing of the proposed project area did not identify any cultural resources. All other previously recorded archaeological sites or historic properties in the Yukon Training Area fall outside of the proposed project area. No historic properties will be affected by the proposed project.

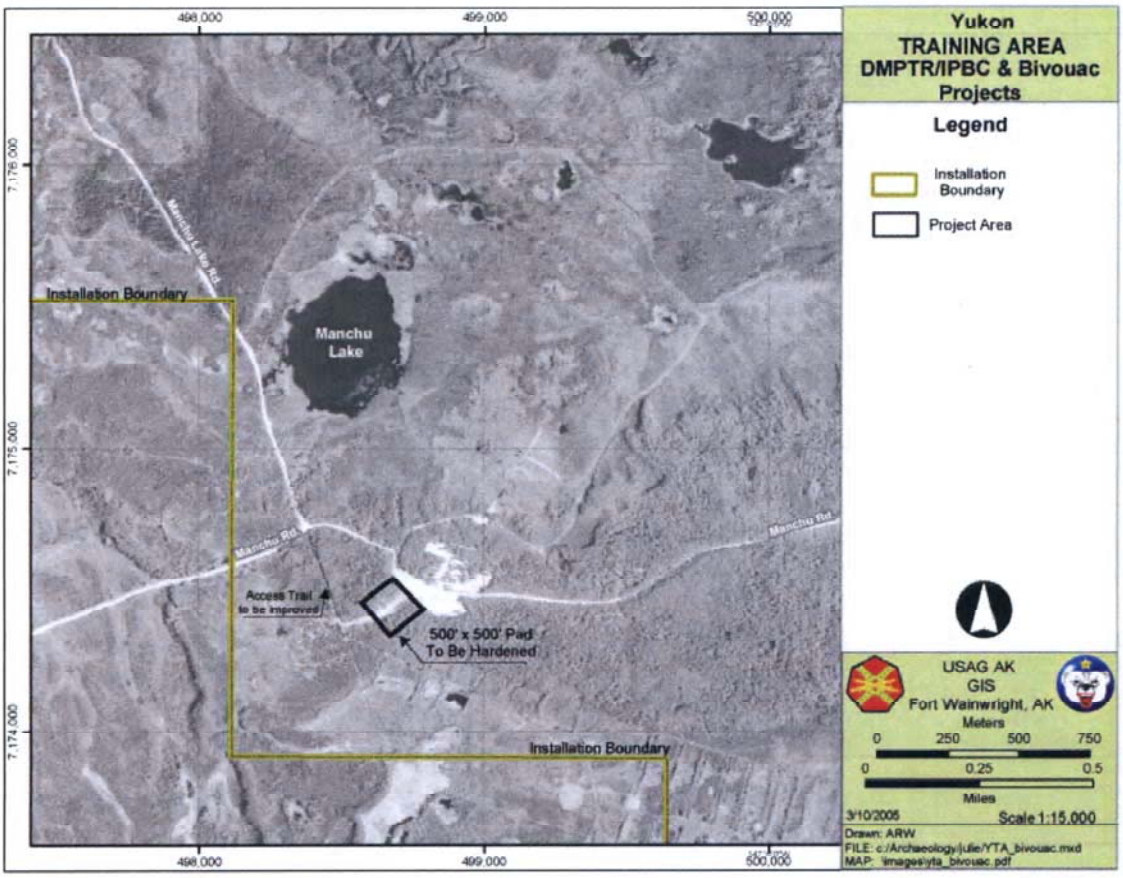

Figure 2. Bivouac area and access trail project area

2.10 Security Fence

USAG-AK has proposed to construct a security fence around the portion of the cantonment that is south of the Chena River and including Training Areas 102 and 104 and the Military Operations in Urban Terrain site at Fort Wainwright. The proposed fence will follow the southern bank of the Chena River through post, then follow Badger Road south to the Richardson Highway, follow the Richardson Highway west where it will meet up with the main gate and then the Chena River (Figure 14). A residential community within the cantonment, Birchwood, will also be fenced in with a separate chain-link fence. Birchwood Housing is located on the north side of the Chena River.

The fence is intended to increase the security of the base by limiting vehicular access from the river as well as along the rest of the proposed fence route. The portion of the fence along the Chena River will be of pipe-rail construction. The portion of the fence from the Chena River south along Badger Road and for several miles east along the Richardson Highway will be chain-link, as will the portion around the Birchwood Residential area. The remainder of the fence along the Richardson Highway to the main gate will be a high security chain-link fence which will have cable running through it. Clearing of brush and trees will be necessary along some parts of the fence route to create maintenance and security access. Fence posts will be installed with a vehicle mounted pile-driver or will be cemented in place after a hole has been excavated for the post, depending on soil conditions. It is predicted that the majority of the pipe-rail fence posts will be installed with a vehicle mounted pile-driver. Much of the area along the Chena River, particularly the south side, is already heavily disturbed by housing, roads and other previous military activities. The remainder of the proposed fence route consists of previously disturbed areas, areas of low potential for locating cultural material and wetlands. The surveyed area is located on map quadrangle FAI D2, T. 1 S., R. 1 W., Sections 11, 12, 13 and 14 and T. 1 S., R. 1 E., Sections 5-9 and 16-17.

Survey and Inventory

In May and June of 2005 a portion of the proposed fence route was investigated by a crew of two to four archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University). The crew walked linear transects approximately 10-15 meters wide along the proposed fence route for the length of the Chena River as it runs through Fort Wainwright.

The proposed route along the river was inspected visually for artifacts and disturbance. Sub-surface testing was undertaken in areas determined to have potential for intact deposits, as determined by the supervising archaeologist based on the surface disturbance and debris in the area. Shovel tests were approximately 40cm x 40cm, and were screened through ¼" hardware cloth.

Almost the entire length of the Chena River portion of the proposed fence route was determined to have been previously disturbed by military activities. Portions of the riverbank had been paved (asphalt and concrete were still present), bulldozed, and used as an area to dump various materials. Concrete blocks, pieces of broken machinery, the remains of temporary structures, fifty-five gallon drums and various types of trash were all found along or in the riverbank, near or along the proposed fence route (Figure 15). The remains of several structures were also found in the vicinity of the proposed fence route and the river corridor. Just east of Glass Park, where the river and fence route

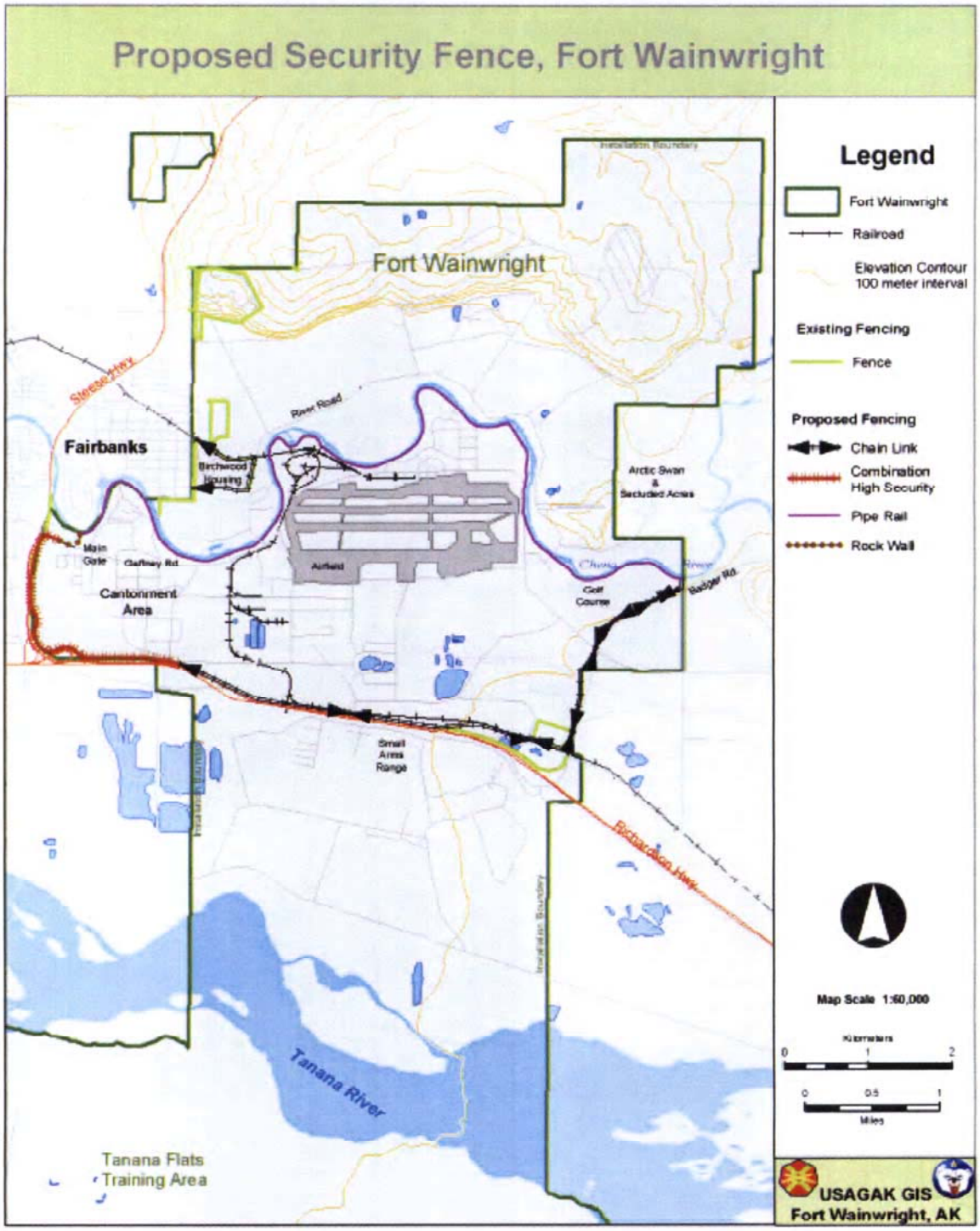

Figure 14. Route of proposed security fence

parallel Gaffney Road, a building foundation was located. Additionally, just north of the rail yard the remains of two partially standing structures were located. One of the structures near the rail yard has been identified as a late-1940s era concrete block-making plant (Figure 16). The proposed fence route passes by, but will avoid and not directly impact any of the three structures or structural remains.

A separate security fence will enclose the Birchwood Housing and this area was also archaeologically surveyed. This area was less disturbed than the corridor along the Chena River, however no cultural remains were located.

Cultural Resources

Historical records indicate that several homesteads with cabins and associated buildings were located in the survey area at various times, but military uses of the area have left no traces of preexisting structures. Additionally, no other signs of archaeological sites or other types of historic properties were found.

Results

No historic properties were identified by visual inspection or shovel testing within the project area. The remains of three structures were located in the vicinity of the project area along the Chena River, but all three will be avoided by, and not impacted by, the proposed fence. A large variety and volume of trash and military debris was found along the surveyed portion of the proposed fence route. Much of the area immediately adjacent to the river has been paved, cut, filled with rip-rap, or otherwise heavily used and disturbed. Additionally, the other portions of the proposed fence route were determined, through literature review and vehicle based reconnaissance, to have a very low potential to contain cultural resources and were not surveyed on the ground.

There are no known historic properties located within the APE for this project. All other previously recorded archaeological sites or historic properties on the main post fall outside of the proposed project area. USAG-AK determined that no historic properties will be affected by the proposed project.

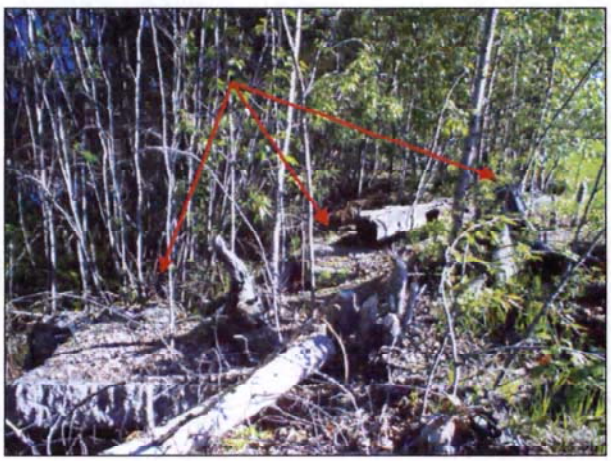

Figure 15. Debris along proposed fence route along the Chena River

Figure 16. Former concrete block making plant in the vicinity of the Chena River and proposed security fence

2.11 Truck Loading Facility

USAG-AK has proposed to construct a ten-bay truck loading and unloading facility and associated support buildings and facilities (Figure 17). The facility will enable the installation to comply with Army Strategic Mobility Program requirements and increase mobilization speed. It will consist of ten multilevel loading docks and ramps, an operations support building, and supporting facilities like water, sewage, parking, electricity, etc. The undertaking will require substantial vegetation clearing and earthwork. This project is located on map quadrangle FAI D2, T. 1 S, R. 1 W., Section 20.

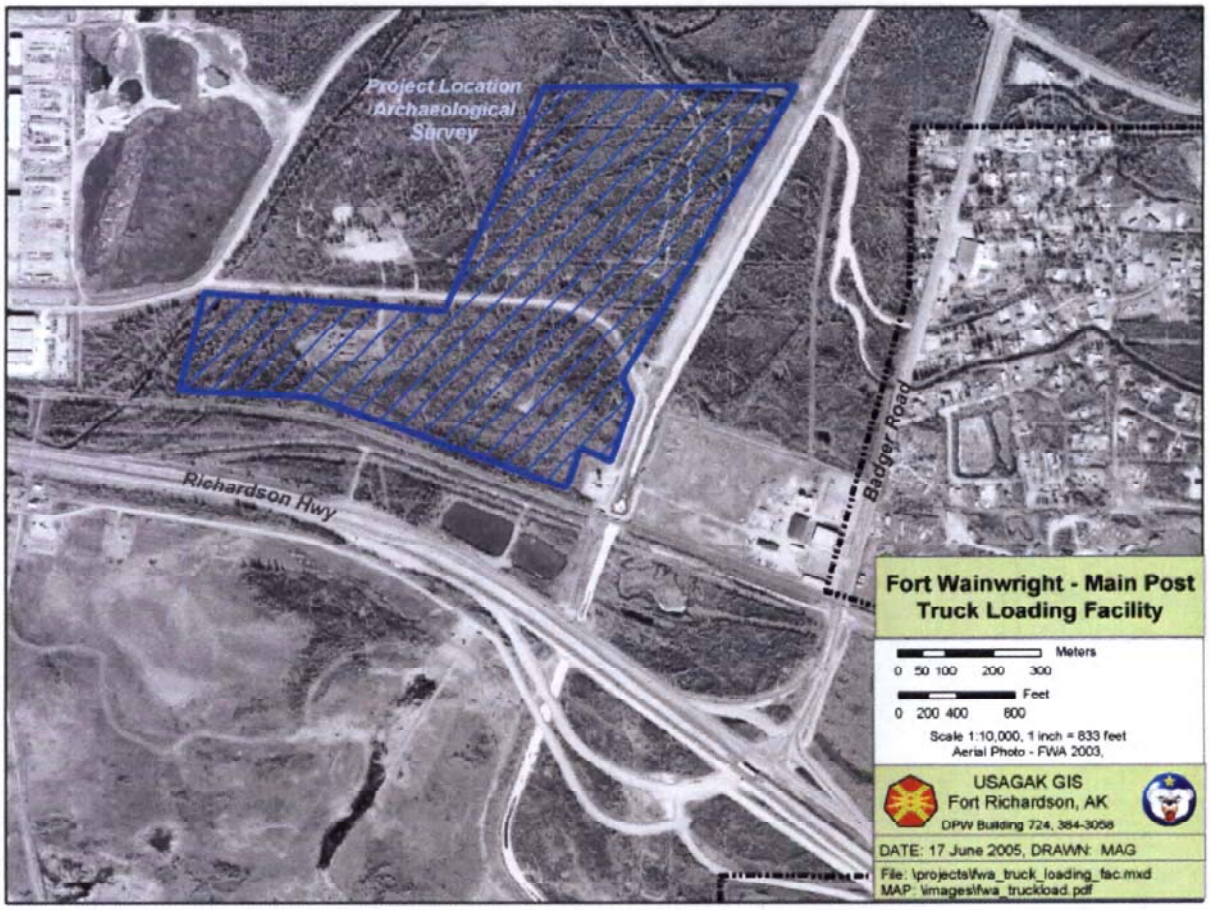

Figure 17. Location of proposed truck loading facility

Survey and Inventory

In May 2005 the proposed facility site was investigated by a crew of two archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University). The crew pedestrian surveyed the project area, which is divided into a north section and a south section by Chippewa Road. No National Register eligible cultural resources were found within the project area.

In addition to pedestrian transects, one 40cm x 40cm shovel test was excavated in the northern section of the project area. The shovel test did not contain any cultural material. No shovel tests were excavated in the southern section of the project area. The vegetation throughout the entire area proposed for a truck loading facility consists of a black spruce forest with occasional birch and alder trees. Ground cover consists mainly of various mosses as well as horsetail and rose.

The northern section of the project area has numerous foot trails and several unmaintained dirt roads. A portion of the project area has previously been developed as an obstacle course for troop training. The remains of an 'expedient structure' were also located during survey and consisted of fallen trees stacked against several adjacent trees to form a small enclosure. Several pieces of unexploded ordinance (UXO) were found in the area north of Chippewa Road in addition to coils of razor wire.

The southern section of the project area also has foot trails and several unmaintained dirt roads. A portion of the project area south of Chippewa Road has been cleared and now has a gravel pad and plywood-type structures used for troop training. The southern section of the project area was much more disturbed than the northern portion. Disturbance included bulldozer berms and foxholes, as well as a large amount of trash, an abandoned vehicle and other military debris. UXO were also present in this portion of the project area.

The location was inspected visually for artifacts and disturbance. Sub-surface testing was undertaken randomly in one location in the northern portion of the project area, as determined by the supervising archaeologist based on the surface disturbance and debris in the area. The shovel test was approximately 40cm x 40cm, and was screened through ¼" hardware cloth.

Cultural Resources

Historical records indicate that several homesteads may have been located in the survey area, but military uses have left no signs of preexisting structures (Price 2002). No signs of other historic properties or sites were found either.

Results

No cultural resources were identified by visual inspection or shovel testing within the project area. One shovel test pit was dug along a transect on the north side of the road. It was dug to 80 cm deep in a black spruce-forested area west of the obstacle course. The test pit revealed no artifacts, just fine wet sands and silt.

Much of the area south of the road has been more heavily disturbed by military training features and activities. All other previously recorded archaeological sites or historic properties fall outside of the proposed project area. USAG-AK determined that no historic properties will be affected by the proposed project.

2.12 NBC Complex Upgrades

USAG-AK has proposed to upgrade an existing parking area and trail network at the NBC complex at Fort Wainwright. This project is located within the cantonment area and the total project area is approximately 2 acres (Figure 18). This area is currently only accessible to vehicles when frozen soil conditions are present. This project will harden the existing pad and trails and will improve access and control erosion by improving drainage through grading, establishing ditches, installing geotextile and fill material and confining activities to hardened surfaces. The purpose of the project is to enable Stryker vehicles to access the area year round for training. This project is located on map quadrangle FAI D1, T. 1 S., R. 1 E., Sections 8 and 9.

Survey and Inventory

In July 2005 the parking area, trail network, and area adjacent to the NBC complex was pedestrian surveyed by a crew of five archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University).

Parallel pedestrian transects spaced at 20 meters or less were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. In addition to pedestrian transects, 40cm x 40cm shovel tests were excavated in the project area.

The majority of the project area was dry and consisted of predominantly birch forest, with spruce and alder scattered throughout. The eastern portion of the project area, however, was a very wet, stunted spruce, muskeg environment. Much of the surveyed area had been previously disturbed to various degrees. An area much larger than the area of potential effect for this project was surveyed to allow for possible modifications in project design. None of the shovel tests excavated contained any cultural material.

Cultural Resources

There are no known sites located within the area of potential effect for this project.

Results

No historic properties were identified through visual inspection or shovel testing within the project area. The majority of the project footprint has been previously disturbed and cleared. Additionally, all other known historic properties at Fort Wainwright are located outside of the project area.

There are no known historic properties located within the area of potential effect for this project. USAG-AK determined that no historic properties will be affected by the proposed upgrade and hardening project.

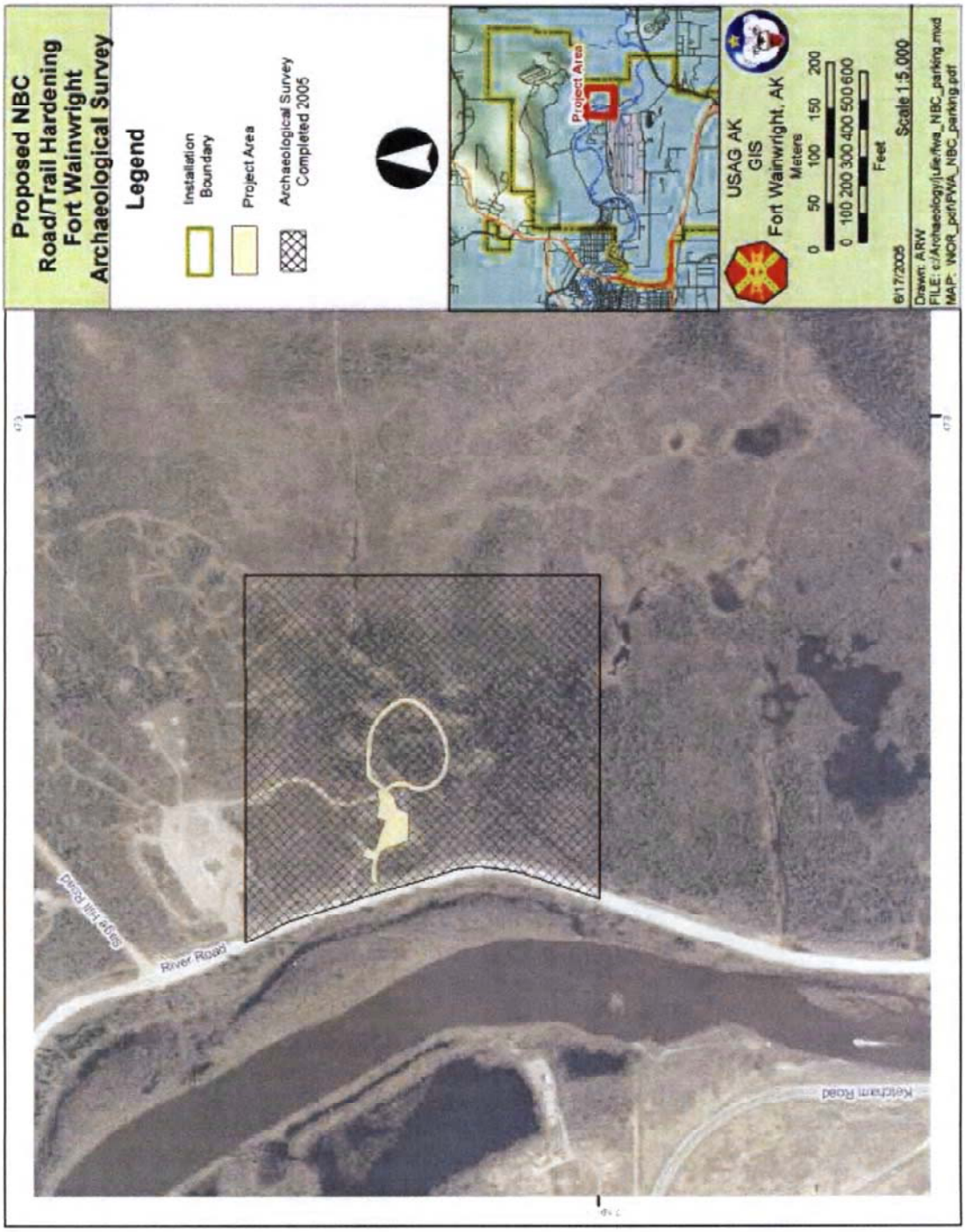

Figure 18. Area surveyed for NBC Complex upgrades

2.13 Warrior Forward Operating Base

USAG-AK has proposed to construct a forward operating base (FOB), to be called 'Warrior,' in Training Area 114 at Fort Wainwright (Figure 19). The location of the proposed project has been used as an equipment staging area, a target area and parking area, among other uses, at various times in the past. The area is also open to and used by all-terrain vehicle drivers. The proposed improvements will be used in troop training exercises to simulate a forward operating base in a field situation. Troops will eat, sleep, participate in guard duty, and carry out activities like equipment repair at the proposed forward operating base. The activities and structures to be used during training at the forward operating base are all temporary and only in place during specific training activities, such as camping in tents, guard duty in plywood watch stations and the temporary placement of trash dumpsters.

Construction activities will include upgrading an approximately 7 acre area of existing pads and roads by placing six inches of capping fill material. Access to the forward operating base will also be upgraded to improve year round access. The undertaking will require substantial vegetation clearing and earthwork. This project is located on map quadrangle FAI D2, T. 1 S., R. 1 E., Sections 9 and 16.

Survey and Inventory

In July 2005 the proposed forward operating base location and surrounding area was pedestrian surveyed by a crew of five archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University).

Parallel pedestrian transects spaced at 20 meters or less were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. In addition to pedestrian transects, 40cm x 40cm shovel tests were excavated in the project area. None of the shovel tests excavated contained any cultural material.

Cultural Resources

Historical records indicate that the Weist homestead may have been located in the survey area, but military uses have left no signs of preexisting structures or other evidence of homesteading (Price 2002). The project area and a portion of the survey area are located on "Approach Hill." This is a small hill (less than 170 meters in height) that is located within several hundred meters of the Chena River and offers views of the surrounding terrain. This hill is a likely location for the discovery of prehistoric archaeological sites. However, previous disturbance of the area seems to have erased any evidence of previous prehistoric or homestead era occupation or uses of the area.

In addition to modern trash and some concrete 'footings,' a firing-in butt is located within the project area, on the south side of Approach Hill (Figure 20). The firing-in butt was used to stop rounds fired from the opposite side of the Chena River. The firing-in butt was excavated into the side of the hill and then covered with boards to make a firing target. It is no longer in use and likely dates to around 1958, based on available maps and construction plans. The firing-in butt is less than 50 years old, will not be physically

impacted by the proposed project, and was not evaluated for National Register of Historic Places eligibility.

Results

No historic properties were identified through visual inspection or shovel testing within the project area. The majority of the project area has been previously disturbed and cleared. Additionally, all other known historic properties located on the Fort Wainwright main post are located outside of the project area. There are no known historic properties located within the area of potential effect for this project. USAG-AK determined that no historic properties will be affected by the proposed project.

Figure 19. Area surveyed for Warrior FOB construction

Figure 20. "Firing-in Butt" wall on south side of Approach Hill

2.14 Alpha Impact Area Proposed Burn, TFTA

USAG-AK has proposed to burn 28,441 acres in the Tanana Flats Training Area (TFTA), Fort Wainwright (Figure 21). The proposed prescribed burn is primarily within the Alpha Impact Area. The project area is located south of the Tanana River and northeast of Clear Creek Butte on map quadrangle FAI C2 within T.2S., R.1W.; T.2S., R.1E.; T.3S., R.1W. and T.3S., R.1E. The northern boundary of the burn is Salchaket Slough and the western, southern and eastern boundaries are winter trails. The proposed burn area within the Impact Area is an area that has not undergone cultural resources surveys due to the high risk to personnel from unexploded ordnance. The areas outside the boundaries of the Impact Area, but within the proposed burn, have also not undergone cultural resources surveys, primarily due to access difficulties and low cultural resource potential. The entire Tanana Flats area has been subject to fires throughout history as part of the natural environment. No ground disturbance is planned as part of this burn. The purpose of this project is to remove vegetation within the Impact Area so that an Explosive Ordnance Disposal team can clear the area for the placement of new targets.

Survey and Inventory

Previous work in the vicinity of the proposed project, within the Tanana Flats Training Area, was undertaken primarily in 1979 (Dixon et al. 1980). This work involved preliminary surveys on Clear Creek Butte and Salmon Loaf to its north, as well as other high points in the TFTA. Since that time, periodic visits have been made by BLM, Army and CEMML cultural resources staff to specific archaeological sites or locations in the TFTA, but no large scale surveys have been completed.

In August 2005 an aerial reconnaissance of the proposed burn area was completed by Julie Raymond-Yakoubian, Fort Wainwright archaeologist employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University). The reconnaissance was completed by helicopter and consisted of several flights around the perimeter of the burn area as well as numerous flights over the center portions of the area, all at various altitudes. Also present during this reconnaissance were CEMML forestry and training land managers who identified the burn unit, methods to be used and potential target placement areas.

The majority of the project area consists of an open muskeg environment with scattered small spruce, birch and alder. There are also more dense concentrations of trees, primarily along the small creeks that run through the project area. As noted above, the reconnaissance consisted of flights across the proposed burn area. Particular attention was paid to stream banks, stream crossings, any areas of higher elevation and trails. All of these types of locations were flown over several times, until the principal investigator was confident that there were no historic resources present (as visible from an altitude of several hundred feet).

A metal gate has been installed at one of the trail intersections along the western boundary of the burn unit. The gate was installed to prevent people from entering the Alpha Impact Area via an existing trail. In addition to the existing trails, there are vehicle shells and other pieces of miscellaneous machinery scattered throughout the Impact Area. These items were placed in their current locations by USAG-AK and are used as targets.

A portion of the western boundary of the burn is the Bonnifield Trail. Because this trail, and the others used as burn unit boundaries, are already cleared of trees and other vegetation they act as fire breaks. No clearing or other ground disturbing activity will occur on the trails.

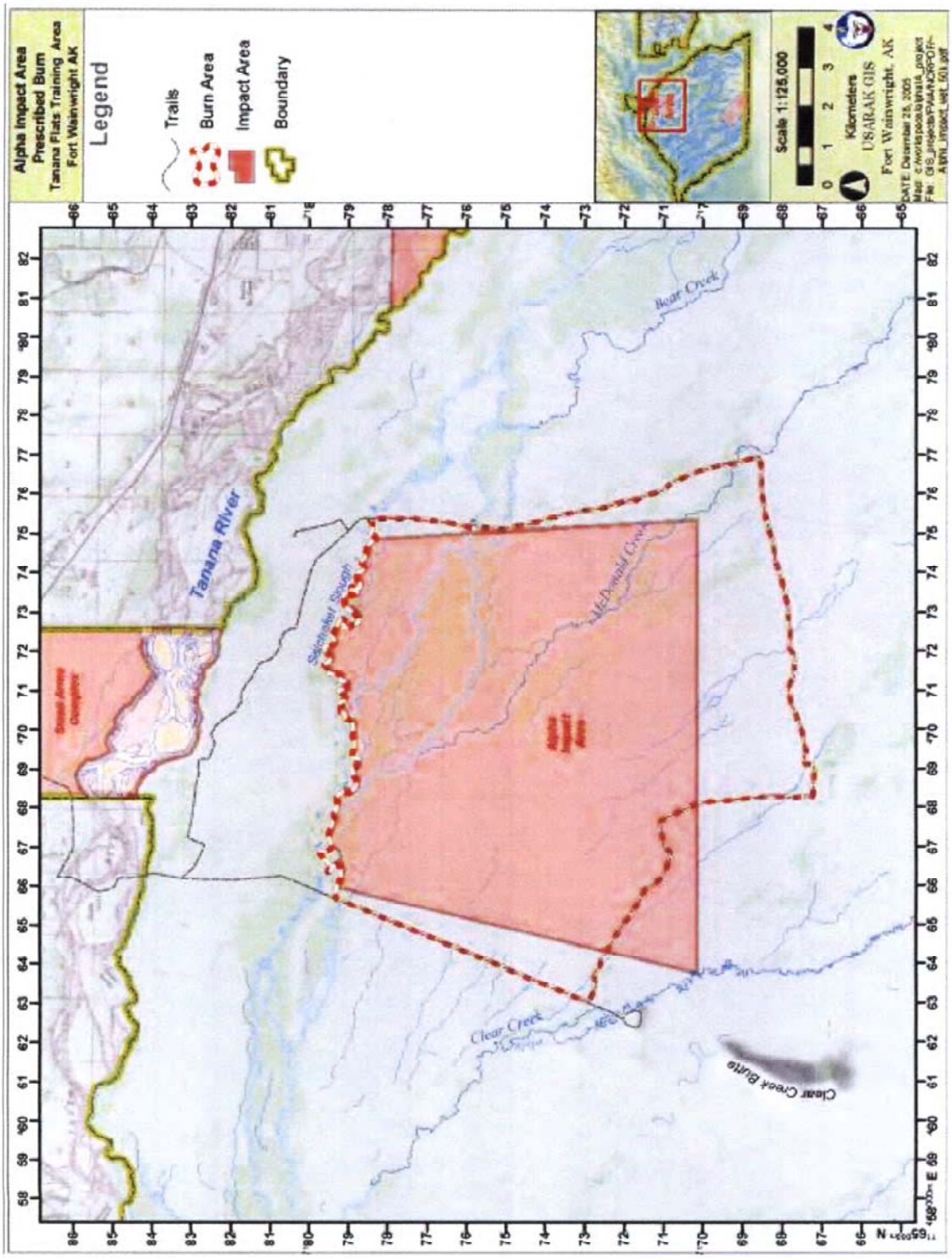

Figure 21. Proposed burn in the Alpha Impact Area

Cultural Resources

There are no known historic properties located within 1km of the proposed burn area. As noted above, the historic Bonnifield Trail is a portion of the western boundary of the burn unit. Aerial reconnaissance did not identify any features (such as structural remains or other cultural resources) associated with this portion of the trail. A more likely location for remains associated with the trail would be at the topographic feature known as Salmon Loaf, a hill to south and west of the project area, or Clear Creek Butte. The proposed burn should have no effect on the Bonnifield Trail.

Results

A combination of literature review and aerial reconnaissance did not identify any National Register eligible cultural resources within the proposed project area. All other known cultural resources in the TFTA are located outside of the project area. USAG-AK determined that no historic properties will be affected by the proposed project.

Figure 22. View of proposed burn along its western boundary (gate visible at intersection)

Figure 23. General view of proposed burn area

2.15 Site Re-locations, YTA

The cultural resources program of the United States Army Garrison, Alaska (USAG-AK) has attempted to re-locate three sites located adjacent to the road system in the Yukon Training Area (Figure 27). Attempts were made to re-locate these sites (XBD-00093, XBD-00103 and XBD-00104) in order to monitor their current condition and to determine any future actions needed to protect or mitigate the sites.

Attempts to re-locate the sites were unsuccessful, likely due to the loss of integrity of the sites since their initial discovery. Application of the Criteria for Evaluation of Historic Properties (36 CFR 60.4) indicates a finding of "Not Eligible" for each of the three sites, based on the findings outlined below.

Site Relocation Efforts
In June, July and August of 2005 attempts were made to re-locate three prehistoric archaeological sites located in the Yukon Training Area. These investigations were completed by a crew of four to five archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University).

Site locations were arrived at using the site location and site description information presented on the Alaska Heritage Resources Survey (AHRS) card for each site. Typically, after arrival at the site location, sub-surface testing was conducted and the ground surface was investigated for artifacts. However, for some sites it was clear that the site location listed on the AHRS card was incorrect and no testing was done at the location (i.e. if located on a steep, hillside when the site description indicated the site was located on a hill top, etc.). Additionally, all locations in the immediate vicinity of the recorded site location that had the potential for containing sites were also investigated. CEMML has previously determined that much site location information recorded greater than 10 years ago is frequently inaccurate, through no fault of the previous investigators. Therefore, all potential site locations within several hundred meters of the recorded site locations and meeting the site description (i.e. "on the north side of Quarry Road") were also investigated. Shovel tests were approximately 40cm x 40cm, and were screened through ¼" hardware cloth.

Results
Pedestrian survey and subsurface testing were unsuccessful in re-locating sites XBD-00093, XBD-00103 and XBD-00104.

XBD-00093
Latitude:
Longitude: (NAD27)
Determination: Not Eligible

This site consists of one coarse grained beige chert flake found on the surface. The flake may have been a biface thinning flake (Holmes 1979: 14). UTM coordinates for this site are Zone 6, (WGS84)

Findings
This site was originally determined to be not eligible for the National Register on 7/25/84. CEMML archaeology crews attempted to re-locate this site in order to assess its current condition. Intensive subsurface testing and ground surface reconnaissance failed to

locate any additional artifacts anywhere in the vicinity of the AHRS card site location, including along Skyline Road and on a ridge top to just to the south. There is a great deal of disturbance along Skyline Road and at a firing point on the ridge top south of the AHRS site card location. This site may have been larger at one time, prior to the disturbance, or may have been an isolated find. The paucity of cultural material at site XBD-00093 indicates that this site does not contain additional information useful in understanding the prehistory of the area and is not eligible for listing in the National Register of Historic Places.

Figure 24. Disturbed area in vicinity of XBD-00093

XBD-00103
Latitude:
Longitude: (NAD 27)
Determination: Not Eligible

This site consists of one coarse grained chert flake found on the disturbed surface of a hill top leveled by heavy machinery (Holmes 1979: 19). UTM coordinates for this site are Zone 6, (WGS84).

Figure 25. View from one area tested in attempts to relocate XBD-00103

Findings
This site was originally determined to be not eligible for the National Register on 7/25/84. CEMML archaeology crews attempted to re-locate this site in order to assess its current condition. Subsurface testing and ground surface reconnaissance failed to locate any additional artifacts anywhere in the vicinity of the AHRS card site location. The site is

located on a hill top off of a spur road to the north of Quarry Road. This hill top has been very heavily disturbed and currently has communications equipment located within the cleared area. This site may have been larger at one time, prior to the disturbance, or may have been an isolated find. The paucity of cultural material at site XBD-00103 indicates that this site does not contain additional information useful in understanding the prehistory of the area and is not eligible for listing in the National Register of Historic Places.

XBD-00104
Latitude:
Longitude: (NAD 27)
Determination: Not Eligible

This site consists of two grey chert flakes, one of which was a possible biface thinning flake. The flakes were found on the disturbed surface of an apparent material source (Holmes 1979: 21). UTM coordinates for this site are Zone 6,
(WGS84).

Findings
This site was originally determined to be not eligible for the National Register on 7/25/84. CEMML archaeology crews attempted to re-locate this site in order to assess its current condition. Intensive subsurface testing and ground surface reconnaissance failed to locate any additional artifacts anywhere in the vicinity of the AHRS card site location. The site is located on a hill top northeast of the intersection of Quarry and Manchu Roads. This area appears to have been cleared by heavy machinery numerous times. This site may have been larger at one time, prior to the disturbance, or the two flakes may have been an isolated find. The paucity of cultural material at site XBD-00104 indicates that this site does not contain additional information useful in understanding the prehistory of the area and is not eligible for listing in the National Register of Historic Places.

Figure 26. View of previously disturbed area tested in attempts to relocate XBD-00104

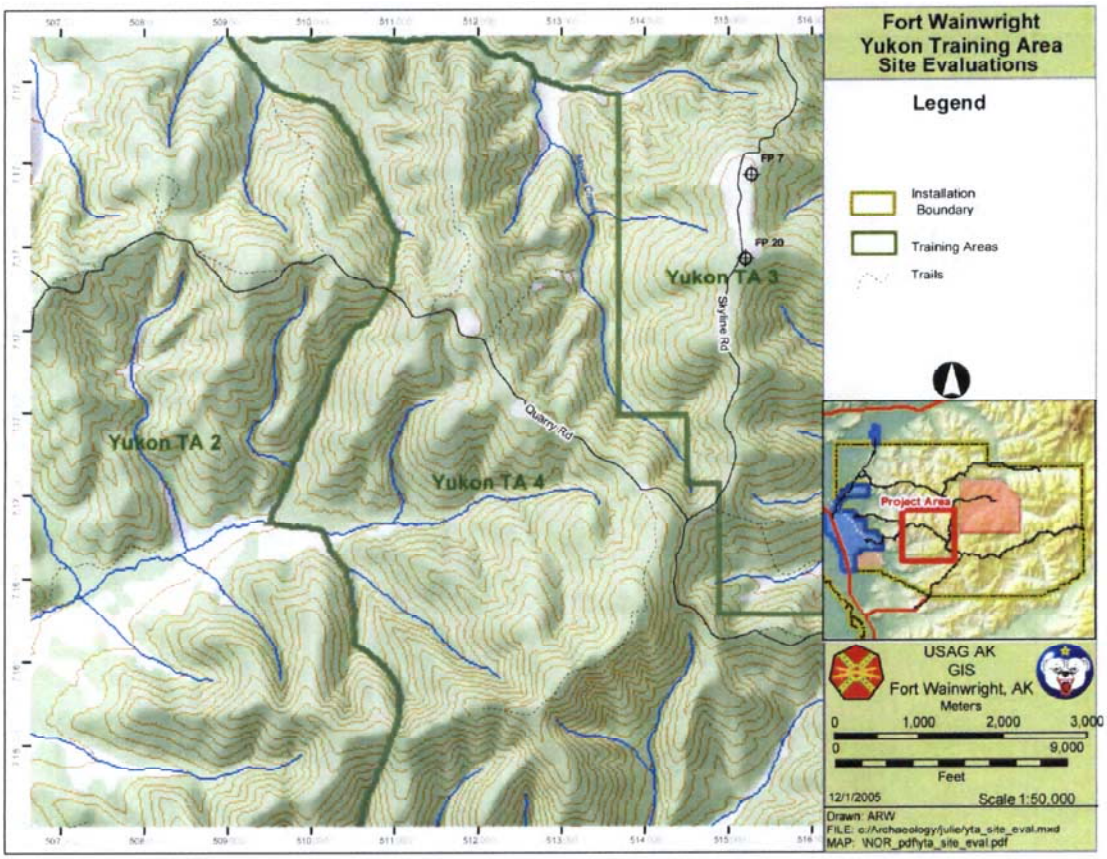

Figure 27. Vicinity of three re-evaluated sites in the Yukon Training Area

2.16 Firing Point Upgrades, YTA

USAG-AK has proposed to construct one new firing point (Figure 28) and to upgrade firing points (FPs) 11, 12 and 13 (Figure 29) within the Yukon Training Area (YTA). All three of the FPs to be upgraded are located along the north side of Brigadier Road. FPs 11 and 12 have not previously undergone any clearing activity within their designated boundaries for the purpose of creating a usable FP. Clearing has occurred, however, anywhere from 30 meters to 50 meters from the edge of Brigadier Road for other purposes. FP 13 has previously had some clearing done. Proposed upgrades at all three FPs would involve clearing of vegetation, earth moving, and installation of a hardened pad for equipment, vehicles and personnel. Additionally, a new firing point and access road is proposed for construction along the east side of Skyline Road. There has been some disturbance in the vicinity of Skyline Road (approximately 30-50 meters from the edge of the road), but little along the ridge that is proposed for the FP and access road construction. The purpose of these projects is to provide additional firing points into the Stuart Creek Impact Area to increase troop training options within the Yukon Training Area. The proposed FP upgrades are located on map quadrangle XBD C5, T. 3 S., R.6 E., Section 26 (FP 11) and T.3 S., R.7 E., Sections 17 and 18 (FP 12) and T.3 S., R.7 E., Section 9 (FP 13). The proposed FP construction is located on map quadrangle XBD C6, T. 2 S., R. 5 E., Section 36.

Survey and Inventory

In June 2005 USAG-AK cultural resources staff reviewed the proposed project and the existing literature on cultural resources within the Yukon Training Area. In June, July and August of 2005 the proposed firing point and three firing point upgrades were pedestrian surveyed by a crew of four to five archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University).

Parallel pedestrian transects spaced at 20 meters or less were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. In addition to pedestrian transects, 40cm x 40cm shovel tests were excavated throughout the project areas. None of the shovel tests excavated contained any cultural material.

Transects and shovel testing did not identify any archaeological materials. Several foxholes and the remains of previous recent training operations, such as food and beverage cans and miscellaneous trash, were scattered throughout the FP project areas.

Cultural Resources

There is one known site located in the vicinity of the proposed firing point construction project on Skyline Road. There is also one known site located in the vicinity of the FP 11 upgrades. Both of these sites are located outside of the project areas and have previously been determined not eligible for listing in the National Register of Historic Places.

XBD-00093

Latitude:

Longitude: -146° 40' 50"W (NAD 27)
Determination: Not Eligible

This site consists of one coarse grained beige chert flake found on the surface of Skyline Road along a ridge top portion of the road (Holmes 1979). Pedestrian survey and shovel testing at various times produced no additional artifacts. This finding suggests that XMH-00093 is an isolated find. The site area may have been larger at one time, prior to the clearing of the road and pull-off areas in the vicinity of where the artifact was located. This site has been determined not eligible for the National Register in 1984 and 2005.

XBD-00260
Latitude:
Longitude: (NAD27)
Determination: Not Eligible

This site consists of an isolated find of a fine grained, black basalt unifacial scraper found on the surface of Brigadier Road in the Yukon Training Area. This artifact was found on a steep road surface and likely eroded out of deposits further up slope or was transported to the area as fill for road construction. This site was determined not eligible for the National Register in 2004.

Results

No cultural resources were identified within the project areas for the firing point construction or upgrades at firing points 11, 12 and 13. All previously-recorded archaeological sites and historic properties in the Yukon Training Area fall outside the project areas. USAG-AK has determined that no historic properties will be affected by the proposed projects.

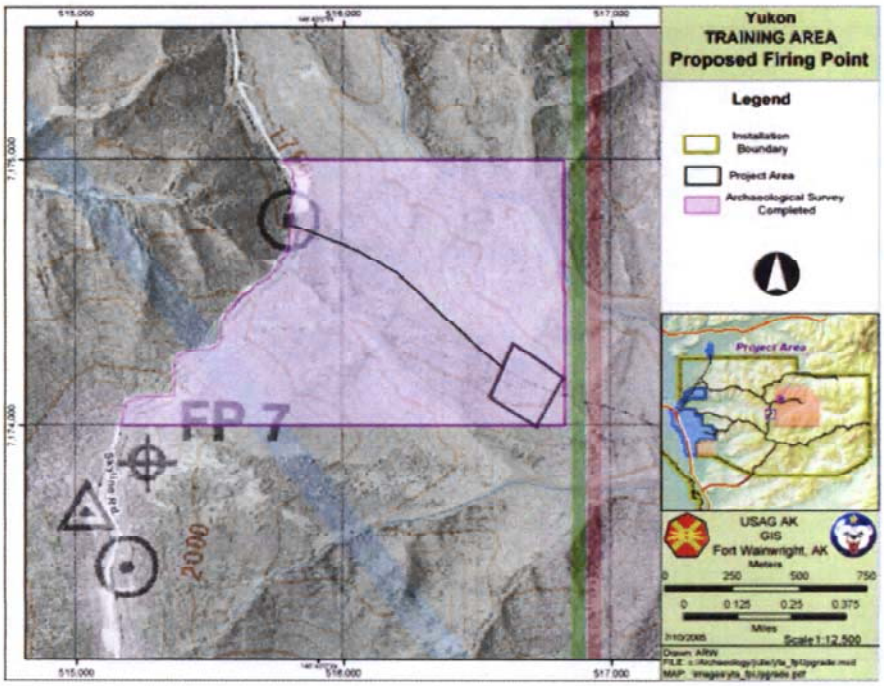

Figure 28. Map showing proposed firing point along Skyline Road

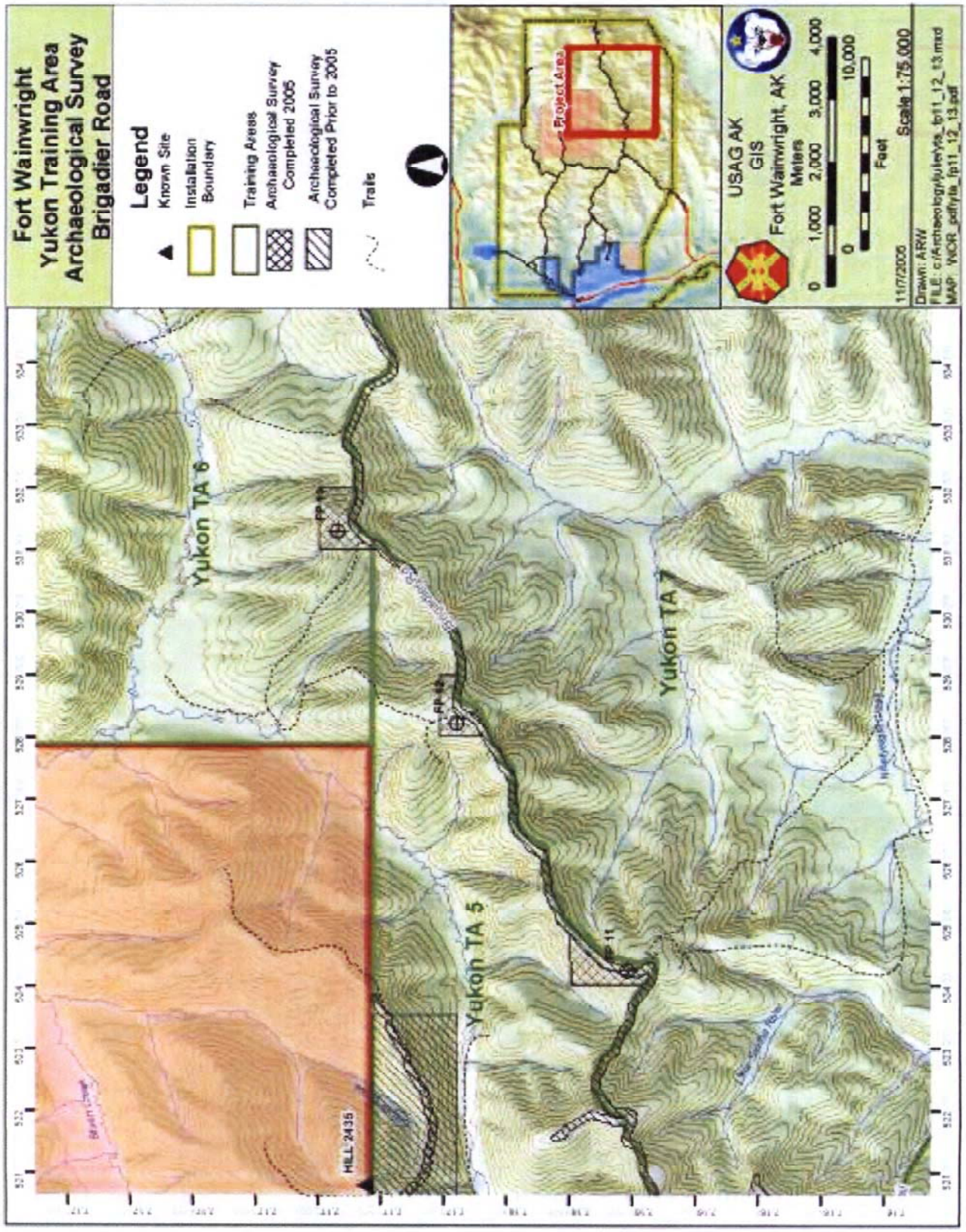

Figure 29. Map showing firing points 11, 12 and 13

2.17 Road Upgrades, YTA

USAG-AK has proposed to upgrade several sections of road within the Yukon Training Area (Figure 30). The areas to be upgraded include 1) the Quarry, Johnson and Brigadier Roads intersection for approximately 1km to the west, 1km to the south and 1km to the east; 2) Skyline Road from its intersection with Quarry Road north to Firing Point 20; 3) the road to the Stuart Creek Impact area north from its intersection with Brigadier Road and 4) Quarry Road, from its intersection with Skyline Road, southeast to approximately 1km west of its intersection with Johnson and Brigadier Roads. These sections of road are characterized by poor drainage, insufficient and inappropriate road base and cap material, rutting and large erosion features, which impede access. The proposed upgrades will re-establish hardened road surfaces and drainage features, including out/in slopes, ditches, water bars and culverts. This will involve grading, ditching, installing geotextile and fill material. All activities will be confined to within 20 meters of the existing road edge. The purpose of these activities is to improve access throughout the Yukon Training Area. The proposed projects are located on map quadrangle XBD C6 in T3S, R5E and R6E.

Survey and Inventory

In July and August of 2005 the proposed road upgrades in the vicinity of the Quarry, Brigadier and Johnson Roads intersection (Area 1), and the southern portion of Skyline Road (Area 2) were pedestrian surveyed by a crew of four to five archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University). In 2004 the road corridor for the road to the Stuart Creek Impact Area from its intersection with Brigadier Road (Area 3), and Quarry Road, from its intersection with Skyline Road, southeast to approximately 1km west of its intersection with Johnson and Brigadier Roads (Area 4) were surveyed by CEMML archaeologists. In Areas 1 and 2, approximately 80-100 meters on either side of the roads has been archaeologically surveyed. In Areas 3 and 4, approximately 30 meters on either side of the roads has been archaeologically surveyed.

Parallel pedestrian transects spaced at 20 meters or less were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. In addition to pedestrian transects, 40cm x 40cm shovel tests were excavated throughout the project area. All excavated materials were screened through ¼" hardware cloth. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. None of the shovel tests excavated contained any cultural material.

Additionally, a large amount of disturbance as a result of previous military activities, such as clearing and bulldozing, was found within the project area, particularly within 20-30 meters of the roads.

Cultural Resources

There are three known sites located within the area of potential effect for the proposed road upgrades. Site XBD-00093 has previously been found not eligible for listing in the National Register of Historic Places. Site XBD-00094 was previously tested intensively by Holmes (1979) and Cook (1979) and re-investigated several times since, but not formally evaluated. The site was revisited again as part of this project and was

determined not eligible for the National Register. Site XBD-00266 was discovered during survey activities for this project and has also been determined not eligible for the National Register.

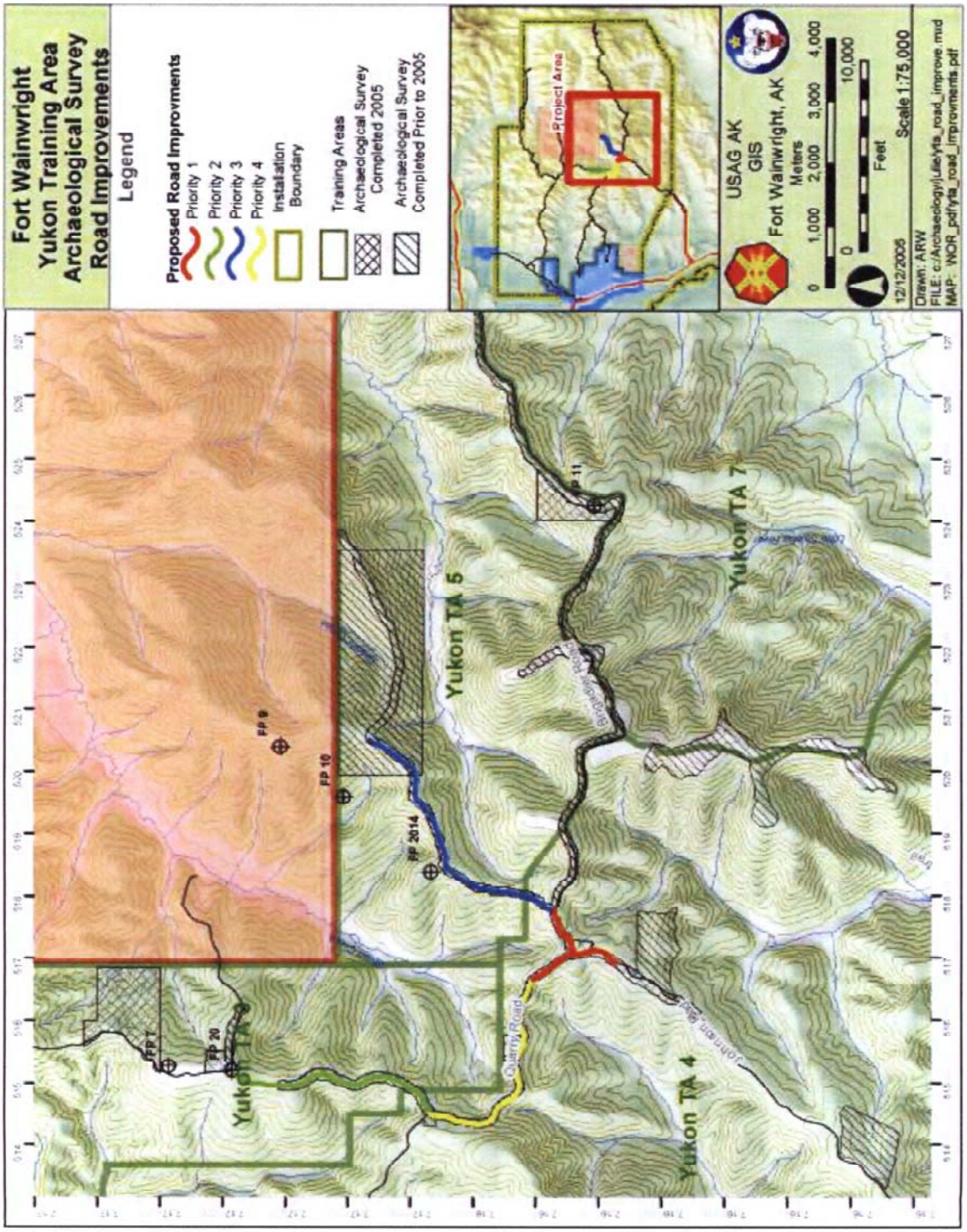

Figure 30. Map showing proposed road upgrades

XBD-00093
Latitude:
Longitude: (NAD 27)
Determination: Not Eligible

This site consists of one coarse grained beige chert flake found on the surface of Skyline Road along a ridge top portion of the road (Holmes 1979). UTM coordinates for the site are Zone 6, (WGS 84). This site was previously determined not eligible for the National Register in 1984 and 2005. Pedestrian survey and shovel testing at the site location, as well as the surrounding ridge top area, did not locate any additional cultural materials. This finding suggests that XMH-00093 is an isolated find. The site area may have been larger at one time, prior to the clearing of the road and pull-off areas in the vicinity of where the artifact was located. The paucity of cultural material and high degree of disturbance indicates that this site does not contain additional information that is important to our understanding of the prehistory or history of the region and is not eligible for inclusion in the National Register of Historic Places.

XBD-00094
Latitude:
Longitude: (NAD 27)
Determination: Not Eligible

This site consists of both surface and buried artifacts and is located just southeast of the intersection of Brigadier Road and Johnson Road. Surface artifacts include six obsidian flakes, one rhyolite flake, three chert flakes, two retouched chert flakes, and three fragments of a rhyolite scraper. One of ten test pits produced two more chalcedony flakes (Holmes 1979: 14). UTM coordinates for the site are Zone 6, (WGS 84).

Figure 31. Disturbance berms and re-growth in vicinity of XBD-00094

Findings
This site may have been entirely destroyed by past military activities. Pedestrian survey and shovel testing at the site location, as well as the surrounding hill top area (Quarry, Brigadier and Johnson Road intersection area), did not locate any additional archaeological materials. This finding suggests that XMH-00094 has been destroyed. The site area may have been larger at one time, prior to the clearing of the road and pull-off areas in the vicinity of where artifacts were initially found. Earthen berms, abandoned vehicles, miscellaneous trash and other debris, as well as foxholes and other

excavations, were found throughout the site area and extending as much as 100 meters from the actual road intersection. The majority of the disturbance appeared to be several years to a decade or more old. The high degree of disturbance indicates that this site does not contain additional information that is important to our understanding of the prehistory or history of the region and is not eligible for inclusion in the National Register of Historic Places.

XBD-00266
Latitude:
Longitude: (NAD 27)
Determination: Not Eligible

This site consists of a light gray biface found on the surface of Johnson Road in the vicinity of the Firebird Assault Strip. UTM coordinates for the site are Zone 6, (WGS84).

Findings
Pedestrian survey and shovel testing at the site location, as well as the surrounding ridge area, did not locate any additional cultural materials. This finding suggests that XMH-00266 is an isolated find. The site area may have been larger at one time, prior to the clearing of the road and landing strip. This artifact may also have been transported south along Johnson Road during road maintenance activities from site XBD-00094. The road corridor has been disturbed for at least 20 meters on either side of Johnson Road. The high degree of disturbance indicates that this site does not contain additional information that is important to our understanding of the prehistory or history of the region and is not eligible for inclusion in the National Register of Historic Places.

Results
No National Register eligible cultural resources were identified within the project area for the proposed road upgrades in the Yukon Training Area. Three sites located within the area of potential effect, XBD-00093, XBD-00094 and XBD-00266, have been determined not eligible for inclusion in the National Register of Historic Places. All other previously recorded archaeological sites and historic properties in the Yukon Training Area fall outside the project area. USAG-AK has determined that no historic properties will be affected by the proposed road upgrades.

Figure 32. A portion of the survey area along Johnson Road

2.2 Manchu Lake Fuel Break, YTA

USAG-AK has proposed to rehabilitate an existing fuel break in the Manchu Lake area of the Yukon Training Area (YTA), Fort Wainwright (Figure 3). The existing fuel break was created in the early 1980s and was re-cleared in the 1990s. Improvements are necessary because the break has re-vegetated and is therefore not as effective in preventing the spread of fires. The existing fuel break is approximately 3330 meters long and approximately 30 feet wide, with a short 200 meter long spur to the north that intersects with Moose Creek. The proposed work will involve using a straight blade on a bulldozer to "roll" off the top layer of vegetation (2-3 inches deep). This work will be done while the ground is still frozen and will be limited to the footprint of the existing fuel break. The purpose of this particular fuel break is to contain wildfires within the Manchu Range. This project is located on map quadrangle FAI C1, T. 2 S., R. 4 E., Sections 30 and 31.

Survey and Field Methods

In the summer of 2002 the project area for the fuel break improvement project was investigated by an archaeological survey crew, employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University). This crew was supervised by William Hedman. This cultural resources survey was part of a survey for a larger range development project. All of the area shown in Figure 3 was archaeologically surveyed in the summer of 2002 (Hedman et al. 2003).

Parallel pedestrian transects spaced at 10-20 meters were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. Shovel tests were approximately 40cm x 40cm, and were screened through ¼" hardware cloth.

Cultural Resources

There is one known site in the vicinity of the proposed project. This site has been determined to be outside of the project area.

FAI-00157
Latitude:
Longitude: (NAD 27)
Determination: Not evaluated

This site consists of one chert flake and a segment of an obsidian microblade. The artifacts were found on the surface of a clearing in 1978 (Holmes 1979:23). During survey activities in 2002, this site was re-located based on map coordinates and the presence of previously excavated test units. UTM coordinates for the site are Zone 6, (WGS84). The site area was shovel tested extensively in 2002, however no additional cultural material was located. This site was likely disturbed by previous clearing activities and all remaining cultural material collected in 1978. This site is located outside of the project area and no additional work is recommended at this time.

Figure 3. Manchu Fuel Break Project Area

Results

Pedestrian survey and sub-surface testing of the proposed project area did not identify any cultural resources. All other previously recorded archaeological sites or historic properties in the Yukon Training Area fall outside of the proposed project area. USAG-AK determined that no historic properties will be affected by the proposed project.

2.3 Stuart Creek Impact Area Prescribed Burn, YTA

USAG-AK has proposed to burn 4031 acres in the Yukon Training Area (YTA), Fort Wainwright (Figure 4). The proposed prescribed burn is composed of three units. The project area is located off of Brigadier and Skyline Roads, as well as the road to Camera Site I in the central portion of the YTA (map quadrangles XBD C-6 T. 2 S., R. 6 E., Sec. 27-28, 32-34; T. 3 S., R. 6 E., Sec. 4-9, 17 and XBD C-5 T. 2 S., R. 6 E. Sec. 11-14, 23-26). The majority of the proposed burn area is located in the Stuart Creek Impact Area, an area that has not undergone cultural resources surveys due to the high risk to personnel from unexploded ordnance. The purpose of the proposed burn is to reduce fine fuel materials and prevent large scale uncontrolled burns. The area has been subject to fires throughout history as part of the natural environment and no ground disturbance is planned as part of this burn.

Survey and Field Methods

In the summer of 2002 a portion of burn unit #3, which extends below the southern boundary of the Stuart Creek Impact Area, was investigated by an archaeological survey crew, employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University). This survey was part of a larger cultural resources investigation for other range developments. This work was supervised by William Hedman.

Parallel pedestrian transects spaced at 10-20 meters were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. Shovel tests were approximately 40cm x 40cm, and were screened through ¼" hardware cloth. Additionally, of the portion of unit #3 that is located outside of the Stuart Creek Impact Area, approximately 263 acres have not been archaeologically surveyed. Though prehistoric cultural resources may exist in this portion of unit #3, based on previous cultural resources inventory and literature review regarding the Yukon Training Area, USAG-AK has determined that this area is has a very low probability of containing historic era cultural resources. It is located in high and rugged terrain, is not in the vicinity of any known resources such as mineral deposits and is not adjacent to any significant water sources.

The remainder of the proposed burn project is located within the boundaries of the Stuart Creek Impact Area. This dedicated impact area has been used for decades for live fire training and the dropping of live ordinance. This area is off limits to personnel who are not specially trained in ordinance disposal and other hazardous materials. As a result, cultural resource investigations did not take place in the impact area.

Cultural Resources

There is one known site located within the project area:

XBD-00162
Latitude:
Longitude: (NAD 27)
Determination: Not evaluated

This site consists of one black chert flake found on a hilltop in an extensively disturbed area. The flake was not collected. The Bureau of Land Management originally located this site and the agency's assessment of it was that the flake was an isolated find from a site that had likely been destroyed by military activities. This site is currently located within the boundaries of proposed burn unit #3 and within the boundaries of the Stuart Creek Impact area. The UTM coordinates for the site are: Zone 6,
(WGS 84).

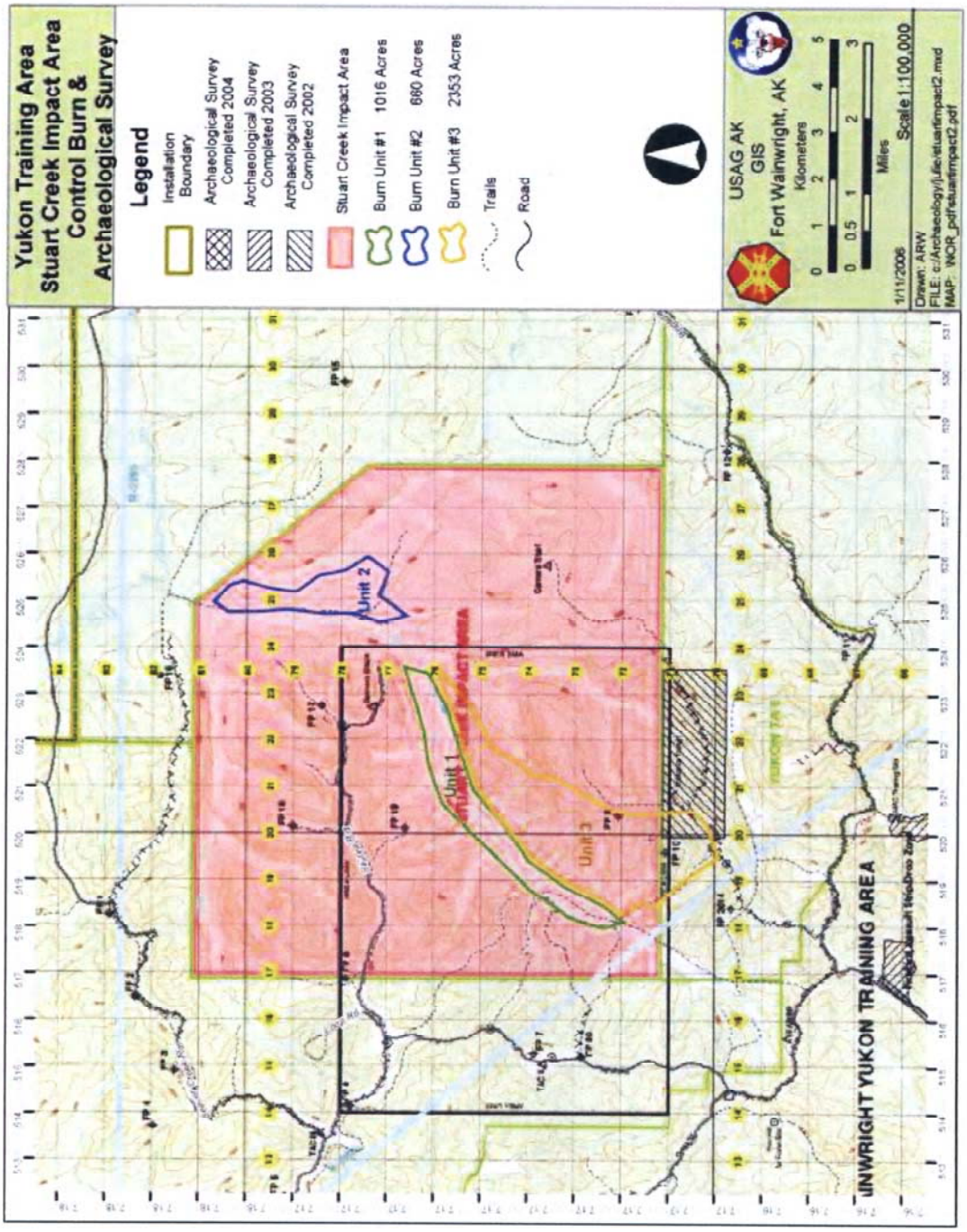

Figure 4. Stuart Creek Impact Area prescribed burn project area

Recommendations
This site has not been evaluated for its eligibility for listing in the National Register of Historic Places. Because this site is located within a dedicated impact area, the Stuart Creek Impact Area, it will not be physically visited to determine its eligibility. The burning of vegetation around and within the boundaries of a prehistoric archaeological site is not likely to cause an adverse effect. The Yukon Training Area, including the vicinity of this archaeological site, has likely burned many times throughout history and prehistory as a result of wildfires. Additionally, based on the original Bureau of Land Management observations of the site, it has been destroyed and no longer retains any integrity, and would therefore not likely be eligible for the National Register under Criterion D or any other Criteria. The proposed project will not have an adverse effect on XBD-00162 and no further action at this site is recommended under the proposed burn plan.

Results
A combination of literature review, pedestrian survey and sub-surface testing of the proposed project area identified one unevaluated cultural resource. Site XBD-00162, a prehistoric archaeological site, lies within the boundaries of proposed burn unit #3 and the Stuart Creek Impact Area. The proposed prescribed burn project will have no adverse effect on XBD-00162. All other previously recorded archaeological sites or historic properties in the Yukon Training Area fall outside of the proposed project area. USAG-AK determined that no historic properties will be affected by the proposed project.

2.4 Proposed Demolition Range, YTA

USAG-AK has proposed to construct a demolition range in the Yukon Training Area. The demolition range will consist of an access road, a 15.5 acre hardened pad and a series of berms within the hardened pad to separate the different demolition stations (Figure 5). An existing 1800 meter long trail will be improved to a 24ft wide, all-season road. A small existing clearing at the range location will be upgraded to a hardened pad with berms. The purpose of this project is to provide additional locations for demolition-type training within the Yukon Training Area. The proposed project is located on map quadrangle XBD C6 at: T3S, R5W, Sections 4 and 9; and T2S, R5E, Section 33.

Survey and Field Methods

In July 2005 the proposed demolition range and access road project area was pedestrian surveyed by a crew of four to five archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University).

Parallel pedestrian transects spaced at 20 meters or less were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. In addition to pedestrian transects, 40cm x 40cm shovel tests were excavated in the project area. All excavated materials were screened through ¼" hardware cloth. None of the shovel tests excavated contained any cultural material.

An area larger than the proposed project footprint was surveyed and shovel tested. Site XBD-00095 was also reinvestigated (see below) as part of this project. No cultural materials were identified or recovered during the field inventory.

Cultural Resources

There is one known site in the vicinity of the proposed project. This site has been determined to be outside of the project area.

XBD-00095
Latitude:
Longitude: NAD 27)
Determination: Not Eligible

This site consists of two grey chert flakes, one a biface thinning flake, found on the disturbed surface of a roadcut in an old quarry pit. This site was found during survey in 1979 and is located north of Quarry Road. Attempts were made to relocate this site in the summers of 2002 and 2005. Pedestrian reconnaissance and shovel testing was undertaken at the specific location noted in the 1979 survey report, as well as in the general vicinity of the originally reported site location. The roadbed and old quarry are extant, but no additional cultural materials were found either in 2002 or 2005. This site lies outside the proposed area of potential effect for the proposed demolition range and access road. UTM coordinates for the site are: Zone 6,
(WGS 84).

Findings

Pedestrian survey and shovel testing produced a total of only two surface artifacts. This finding suggests that XMH-00095 is a small, localized occurrence. The paucity of cultural material indicates that this site does not contain additional information that is important to our understanding of the prehistory or history of the region and is not eligible for inclusion in the National Register of Historic Places.

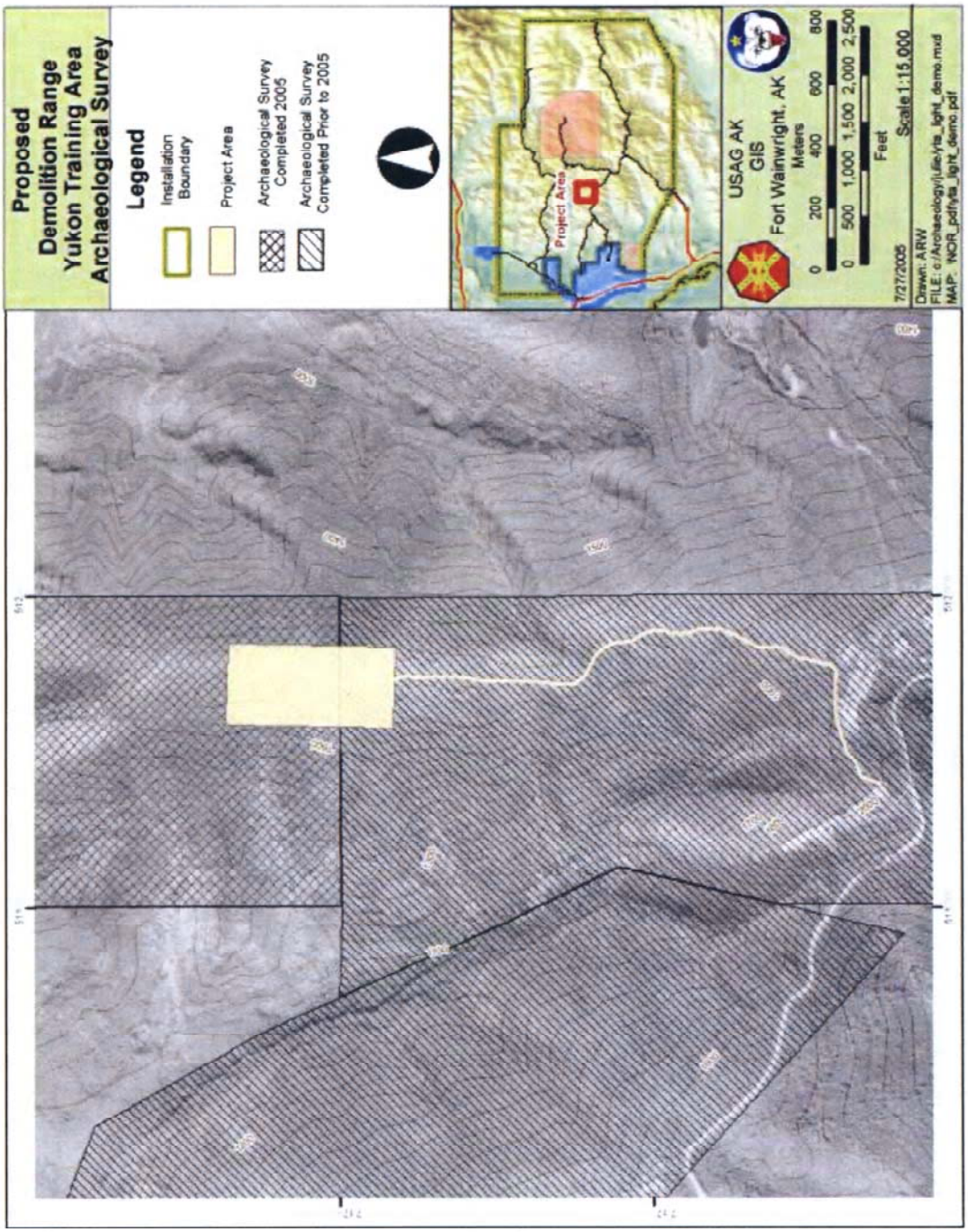

Figure 5. Location of proposed demolition range, YTA

Results

No cultural resources were identified within the demolition range and access road project area. Site XBD-00095 is located outside of the proposed project area and has been determined not eligible for inclusion in the National Register of Historic Places. All other previously-recorded archaeological sites and historic properties in the Yukon Training USAG-AK determined that no historic properties will be affected by the proposed project.

2.5 Husky Drop Zone Improvements, YTA

USAG-AK has proposed to upgrade the Husky Drop Zone within the Yukon Training Area (YTA) (Figure 6). The upgrades would include improving an existing access trail to a permanent year-round access road. Additionally, a large staging area for training exercises would be constructed on the east side of the drop zone. The purpose of these upgrades is to improve access and control erosion by improving drainage through grading, establishing ditches, installing geotextile and fill material and confining activities to hardened surfaces. The upgrades will also allow the accommodation of large scale brigade size training exercises. The proposed upgrades to the Husky Drop Zone are located on map quadrangle FAI D1 in: T2S, R3E, Sections 1, 2 and 12.

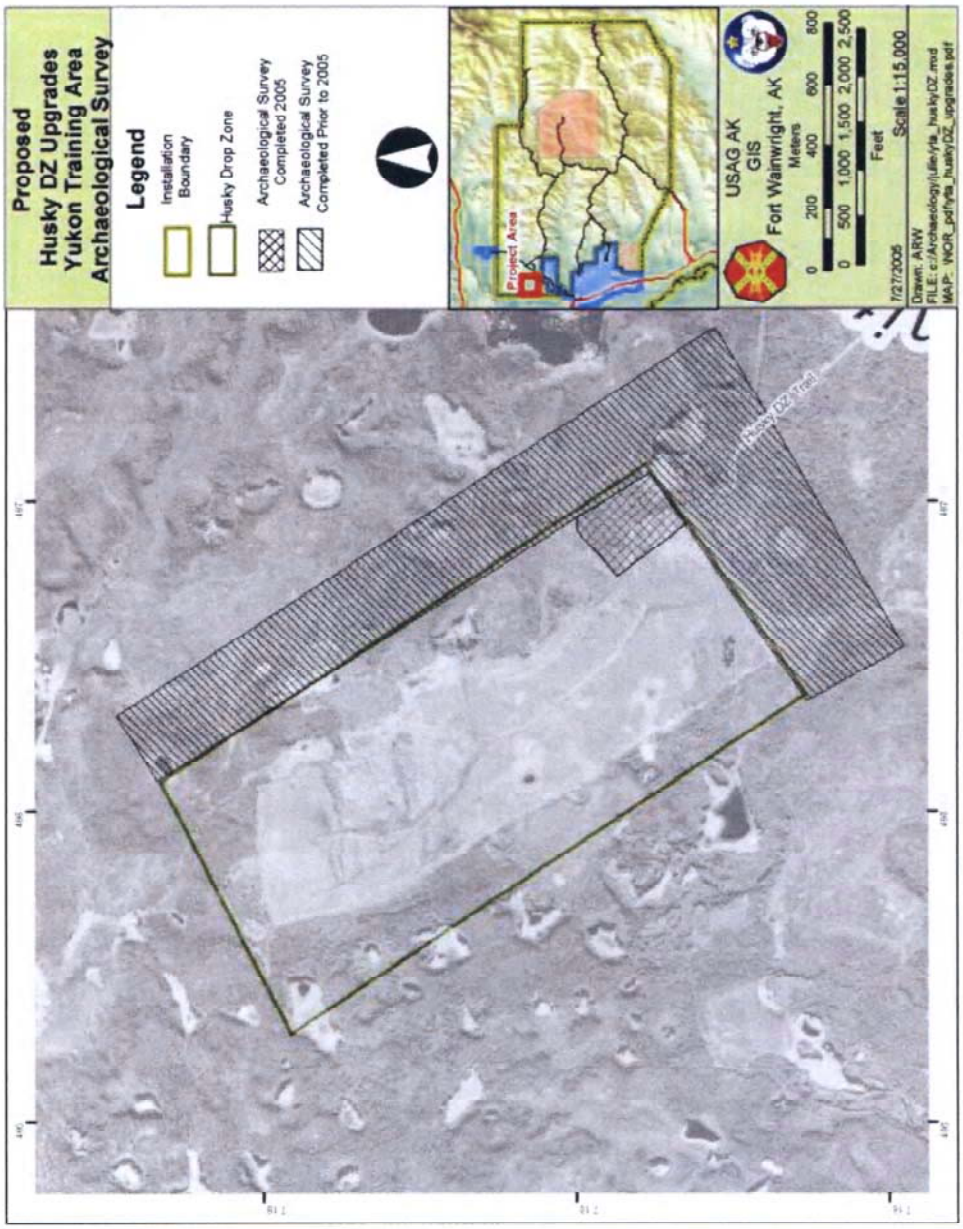

Figure 6. Husky Drop Zone and archaeologically surveyed areas

Survey and Field Methods
In July 2005 the location of the proposed upgrades at the Husky Drop Zone were investigated by a crew of four archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University

Parallel pedestrian transects spaced at 20 meters or less were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. In addition to pedestrian transects, 40cm x 40cm shovel tests were excavated in the project area. All excavated material was screened through ¼" hardware cloth. None of the shovel tests excavated contained any cultural material.

The existing access trail to be upgraded into a year-round access road currently runs the length of the drop zone. This trail runs through an extremely wet area with a low potential for containing cultural resources. The wetlands character of the currently cleared drop zone, through which the access trail runs, was determined through wetlands maps, various aerial photos, and on the ground observation. No transects were walked through this area and no shovel tests were excavated. A staging area for training exercises is proposed for the area along the eastern border of the drop zone. This area is slightly higher and drier than the cleared drop zone itself. The eastern border of the drop zone was archaeologically surveyed and tested in 2002 and in 2005. No cultural resources were located during these investigations.

Cultural Resources
There is one known site in the vicinity of the proposed project. This site has been determined to be outside of the project area.

FAI-01156
Latitude:
Longitude: (NAD 27)
Determination: Not Evaluated

This site consists of chert flakes found in a series of shovel tests on a bench above Horseshoe Lake. UTM coordinates for this site are Zone 6, easting 498072 and northing 7182192. This site lies outside the area of potential effect for the proposed upgrades at the Husky Drop Zone. This site has not been evaluated for eligibility for listing in the National Register of Historic Places and no additional action is recommended at this time.

Results
No cultural resources were identified within the project area for upgrades at the Husky Drop Zone. Site FAI-01156 is located outside of the area of potential effect for this project. All other previously-recorded archaeological sites and historic properties in the Yukon Training Area also fall outside the project area. USAG-AK determined that no historic properties will be affected by the proposed project.

2.6 Informational Kiosks, YTA

USAG-AK has proposed to construct seven information kiosks at road intersections within and on roads entering the Yukon Training Area (YTA) (Figure 7). Kiosk locations at the boundary of the YTA include one on Transmitter Road at the north boundary of Eielson Air Force Base and one at the southern YTA boundary on Johnson Road. Kiosks will also be placed at the intersections of Beaver Creek Road and Transmitter Road; Quarry Road and Manchu Road; Quarry Road and Skyline Road; Skyline Road and Beaver Creek Road; and at the intersection of Quarry Road, Brigadier Road and Johnson Road.

The kiosks will consist of four inch by four inch posts to be set in holes approximately eight inches by eight inches and cemented in place. Attached to the post will be an information board. The kiosks will provide locational information to training area users. The kiosks will be within the road rights-of-way, much of which is already heavily disturbed. The proposed locations for the five kiosks in map quadrangle XBD C6 are: T2S, R5E, Section 26; T3S, R4E, Section 1; T3S, R5E, Section 14; T3S, R5E, Section 25 and T4S, R5E, Section 16. The proposed location for the one kiosk in map quadrangle FAI C1 is: T2S, R3E, Sections 12 and 13 (boundary). The proposed location for the one kiosk in map quadrangle FAI D1 is: T2S, R3E, Section 6.

Survey and Field Methods
In May 2005 the seven proposed kiosk locations were investigated by a crew of two archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University).

Proposed kiosk locations were inspected visually for artifacts and disturbance. Sub-surface testing was undertaken in areas determined to be high probability (e.g., ridges, benches adjacent to steeper slopes) as determined by the supervising archaeologist based on the presence/absence of other sites in the area. Shovel tests were approximately 40cm x 40cm, and were screened through ¼" hardware cloth.

All seven of the proposed kiosk locations are within the previously disturbed road rights-of-way. This previous disturbance was confirmed visually and, in one case, through subsurface testing.

Cultural Resources
There are two known sites in the vicinity of the proposed project, both of which have been determined to be outside of the project area. One is a new site discovered during the investigations for the proposed project.

XBD-00094
Latitude:
Longitude: (NAD 27)
Determination: Not Eligible

This site consists of both surface and buried artifacts. Surface artifacts include six obsidian flakes, one rhyolite flake, three chert flakes, two retouched chert flakes, and three fragments of a rhyolite scraper. One of ten test pits produced two more chalcedony flakes. The site was found during survey in 1979 and is located just southeast of the intersection of Brigadier Road and Johnson Road. UTM coordinates for

the site are Zone 6, (WGS 84). This site may have been entirely destroyed by past military activities. This site lies outside the proposed location for the kiosk at this intersection and no more cultural material has been found in the vicinity. No additional action is recommended at this time.

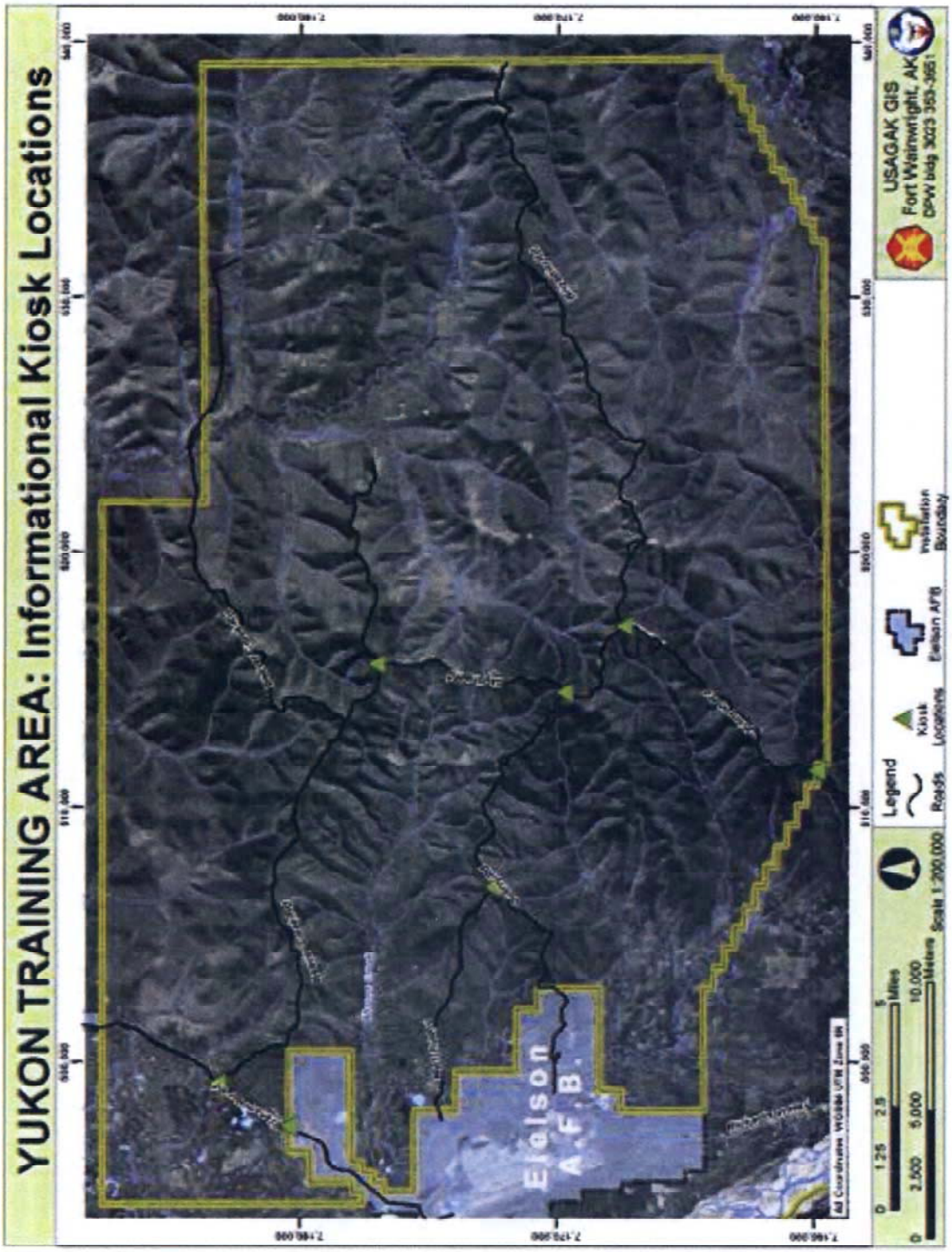

Figure 7. Location of proposed kiosks, YTA

XBD-00104
Latitude:
Longitude: (NAD 27)
Determination: Not Eligible

This site consists of two grey chert flakes, one a probable biface thinning flake, found on the disturbed surface of an apparent material source. This site was found during survey in 1979 and is located northeast of the intersection of Manchu and Quarry Roads. This site lies outside the proposed location for the kiosk at this intersection and no more cultural material has been found in the vicinity during re-investigations in 2005. UTM coordinates for this site are Zone 6, (WGS84). No additional action is recommended at this time.

XBD-00264
Latitude: 64° 43' 04"N
Longitude: -146° 40' 17"W (NAD 27)
Determination: Not Eligible

One new prehistoric site was located near to, but outside of, the proposed kiosk location at the intersection of Skyline and Beaver Creek Roads. Site XBD-00264 consists of two pieces of a lithic artifact located adjacent to an existing Remote Threat Emitter. The artifact is symmetrical and bifacially-flaked from gray chert. It is likely the base of a projectile point or point perform, the point-half of which is missing. The base is flat and slightly narrowed relative to the middle portion. The base was found in two pieces about 10 meters southwest of the Remote Threat Emitter tower. No other artifacts were found in the vicinity. The UTM coordinates for the site are: Zone 6, (WGS 84). This site has not yet been evaluated for National Register eligibility and no additional action is recommended at this time.

Results
No cultural resources were identified within the seven project areas. Sites XBD-00094, XBD-00104 and XBD-00264 are located outside of the proposed kiosk locations, and the kiosk locations will fall within the already-disturbed areas along the road system. All other previously recorded archaeological sites and historic properties in the Yukon Training Area also fall outside the project area. USAG-AK determined that no historic properties will be affected by the proposed project.

Figure 8. Proposed kiosk location at the intersection of Skyline and Beaver Creek Roads

2.7 Moose Creek Fuel Break, YTA

USAG-AK has proposed to construct a fuel break at the Infantry Platoon Battle Course (IPBC) at Fort Wainwright Army Yukon Training Area (YTA). This project will consist of clearing black spruce on approximately 260 acres north of the Manchu Road in the Moose Creek drainage (Figure 9). The fuel break is intended to minimize impacts associated with fire that can result from military training. The fuel break is designed to mitigate the potential escape of wildfire from the range footprint. In addition, the clearings will give fire fighters an area in which to conduct suppression activities if a fire occurs. This project will also provide Alaska Fire Service (AFS) Personnel with the opportunity to train on fuel break construction and common fire fighting tasks.

The fuel break will be constructed on an existing trail network that divides the area into 4 separate units. Within each unit, approximately 22 polygons, each about 10 acres, will be cleared to initiate a stand conversion from spruce to a less fire prone hardwood species. These polygons will slow the progression of a high intensity crown fire, if one were to occur. This project is located on map quadrangles FAI C1, T. 2 S., R. 3 E. and R. 4 E., and quadrangle XBD C6, T. 2 S., R. 4 E.

Survey and Field Methods

In the summers of 2002 and 2003 the project area for the Moose Creek fuel break project was investigated by archaeological survey crews, employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University). These crews were supervised by William Hedman (2002) and Nancy Fichter (2003). These cultural resources surveys were part of a survey for a larger range development project. The entire area of potential effect for the fuel break construction project falls with areas previously surveyed in 2002 and 2003.

Parallel pedestrian transects spaced at 10-20 meters were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. Shovel tests were approximately 40cm x 40cm, and were screened through ¼" hardware cloth. No cultural resources were located within, or near the proposed project area.

Cultural Resources

There are no known sites located in the vicinity of the proposed project.

Results

Pedestrian survey and sub-surface testing within the current project area did not identify any cultural resources. All other previously recorded archaeological sites or historic properties in the Yukon Training Area fall outside of the proposed project area. USAG-AK determined that no historic properties will be affected by the proposed project.

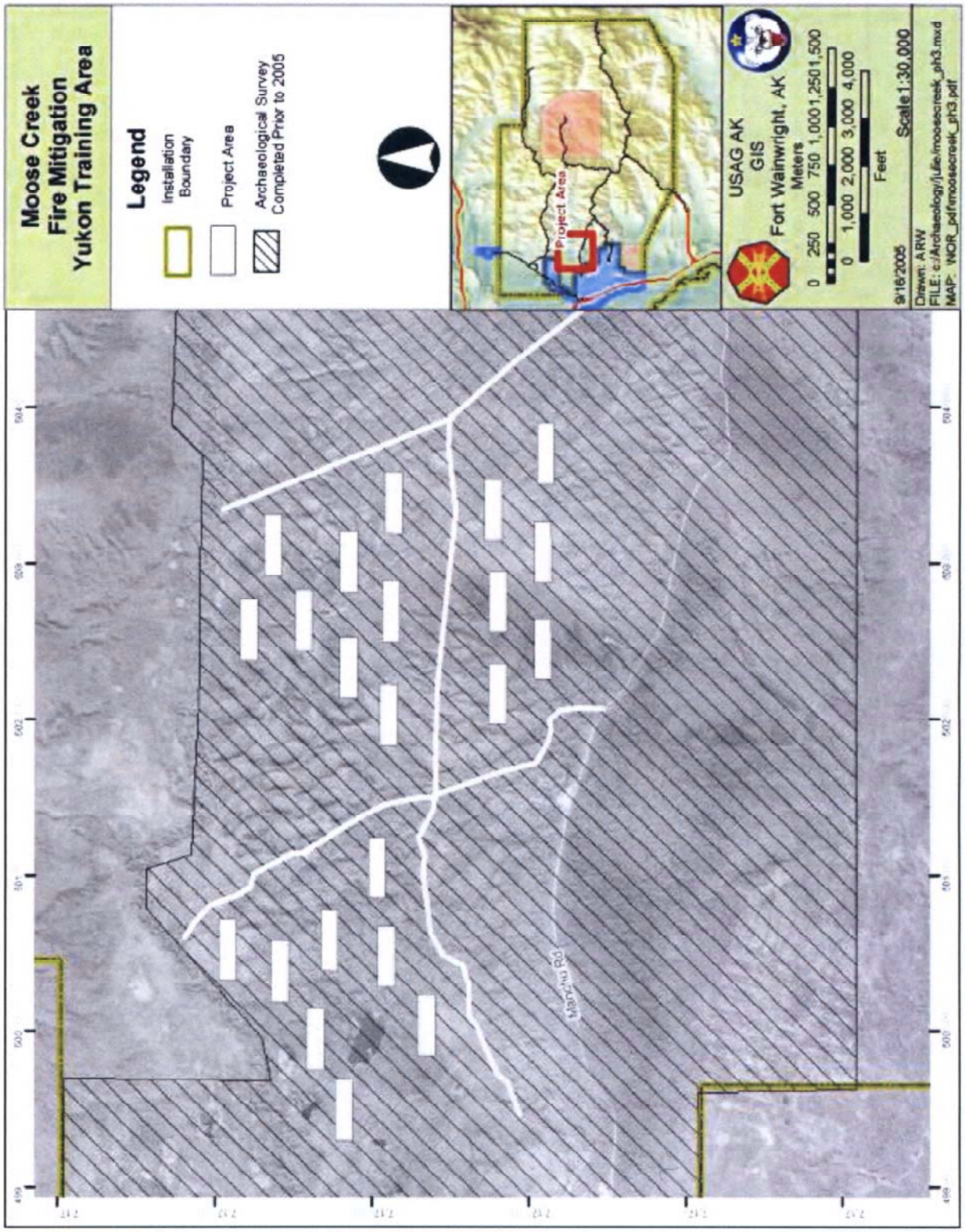

Figure 9. Location of Moose Creek Fuel Break, YTA

2.8 Convoy Live Fire Range, YTA

USAG-AK has proposed to construct a Convoy Live Fire Range in the Yukon Training Area. The purpose of the Convoy Live Fire Range is to simulate enemy contact on a convoy mission. There will be multiple target, or "objective," areas which will represent enemy ambush sites. When the convoy moves through the "kill zone" of an ambush site and is attacked, the convoy commander should direct his or her forces through this area with minimal casualties and then counter attack. This type of range tests the leadership and communication abilities of the convoy commander. It also allows tactical units to practice proper reactions when involved in a convoy ambush. The range will use already existing roads, Skyline Drive and Beaver Creek Road, to access the objective areas. There will be one objective area located along Skyline Drive and four objective areas located along Beaver Creek Road (Figure 11). These objective areas will be cleared of vegetation and targets constructed, lines of sight between targets will be cleared and road maintenance such as spot hardening will be ongoing. The proposed project is located on map quadrangle XBD C6 at: T3S, R5W, Sections 4 and 9; and T2S, R5E, Section 33.

Survey and Field Methods

In July and August of 2005 the proposed range was pedestrian surveyed by a crew of four to five archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University).

Parallel pedestrian transects spaced at 20 meters or less were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. In addition to pedestrian transects, 40cm x 40cm shovel tests were excavated throughout the project area. All excavated materials were screened through ¼" hardware cloth. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. None of the shovel tests excavated contained any cultural material.

An area larger than the proposed project footprint was surveyed and extensively shovel tested. Sites XBD-00264 and XBD-00093 were also reinvestigated (see below) as part of this project. No National Register eligible cultural resources were identified during the field inventory. Some modern trash, barbed wire and a wingtip drop tank from an F-80 or T-33 airplane (Griffin, personal communication) were also found in the project area. The wingtip drop tank was likely jettisoned in flight, as that is what they were designed to do, and no other airplane parts were found within the project area. Additionally, a large amount of disturbance as a result of previous military activities, such as clearing and bulldozing, was found within the project area, particularly within 20-50 meters of the roads.

Cultural Resources

There is one known site within the project area and one site located in the vicinity of the proposed project, both of which have been determined to be not eligible for listing in the National Register of Historic Places.

XBD-00264

Latitude:

Longitude: (NAD 27)
Determination: Not Eligible

This site consists of an isolated find of a gray chert projectile point base found on the surface next to a Remote Threat Emitter on Beaver Creek Road, on a cleared hilltop. The fragment of the projectile point base was found in two pieces, located directly adjacent to each other. The site is near the intersection of Skyline Road and Beaver Creek Road in the Yukon Training Area. UTM coordinates for the site are Zone 6, (WGS 84).

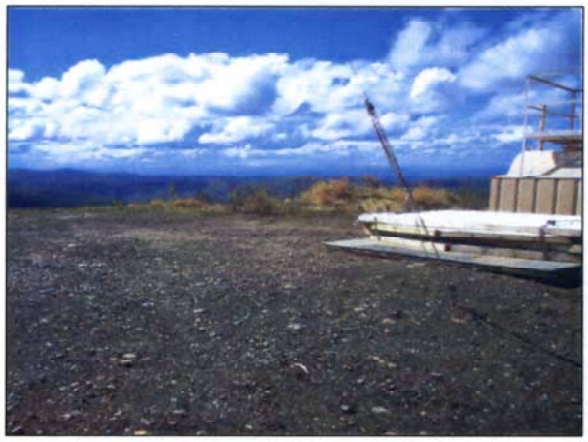

Figure 10. XBD-00264 site area, facing south

Findings
Pedestrian survey and shovel testing produced a total of only two surface artifacts, both fragments of the same projectile point base. This finding suggests that XMH-00264 is an isolated find. The site area may have been larger at one time, prior to the clearing of the hilltop where the artifact was located. The paucity of cultural material and high degree of disturbance indicates that this site does not contain additional information that is important to our understanding of the prehistory or history of the region and is not eligible for inclusion in the National Register of Historic Places.

XBD-00093
Latitude:
Longitude: (NAD 27)
Determination: Not Eligible

This site consists of one coarse grained beige chert flake found on the surface of Skyline Drive along a ridge top portion of the road (Holmes 1979). UTM coordinates for the site are Zone 6, (WGS 84).

Findings
This site was previously determined not eligible for the National Register in 1984. Because of the length of time that has passed since the original evaluation, and its proximity to the project area, this site was re-evaluated during investigations for this project. Pedestrian survey and shovel testing at the site location, as well as the surrounding ridge top area, did not locate any additional cultural materials. This finding

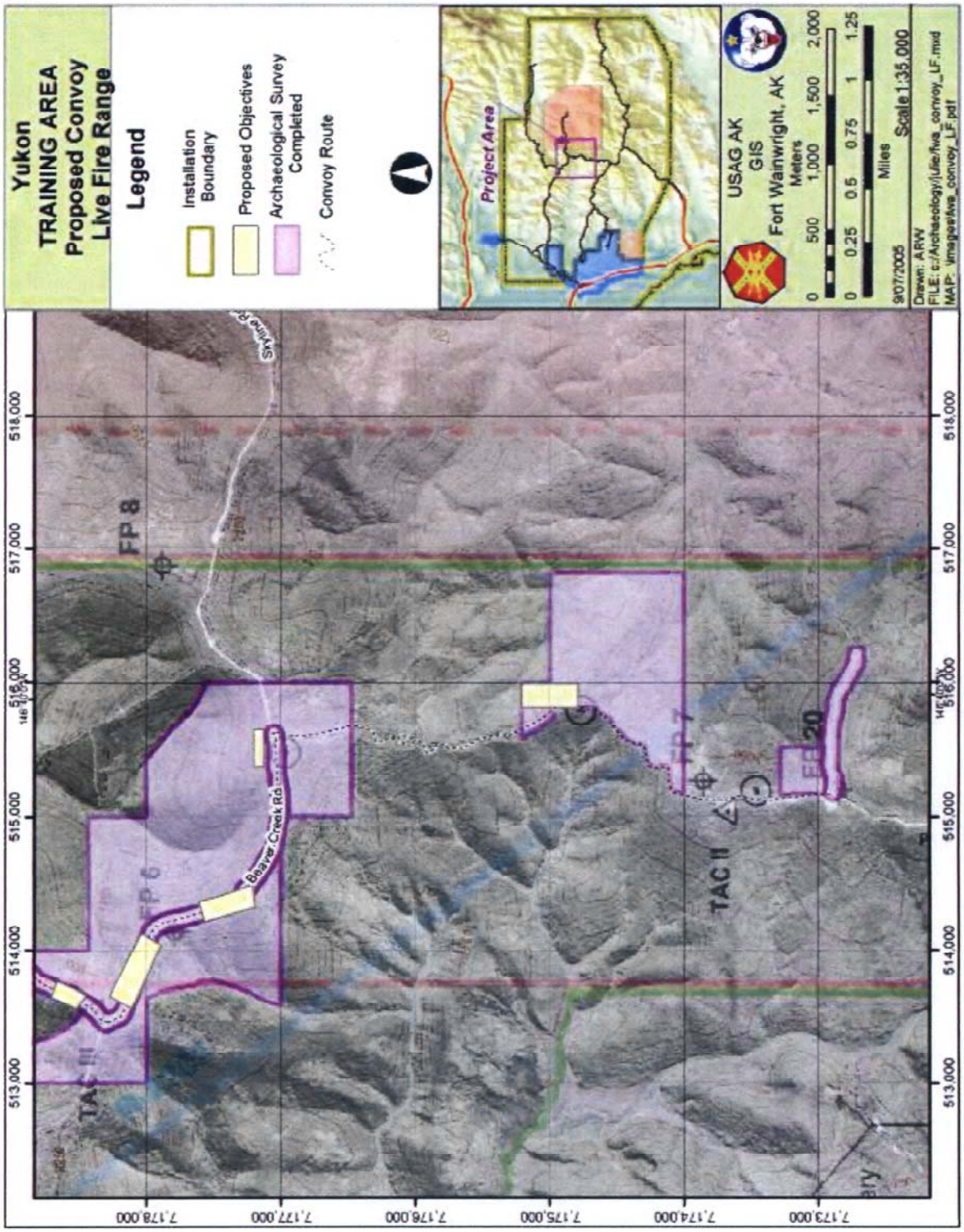

Figure 11. Proposed Convoy Range project area

suggests that XMH-00093 is an isolated find. The site area may have been larger at one time, prior to the clearing of the road and pull-off areas in the vicinity of where the artifact was located. The paucity of cultural material and high degree of disturbance indicates that this site does not contain additional information that is important to our understanding of the prehistory or history of the region and is not eligible for inclusion in the National Register of Historic Places.

Figure 12. XBD-00093 site area, facing east

Results

No National Register eligible cultural resources were identified within the Convoy Live Fire Range project area. The one site located within the project area, XBD-00264, has been determined not eligible for inclusion in the National Register of Historic Places. Additionally, site XBD-00093, located in the vicinity of the project area, was re-evaluated and also determined to be not eligible for the National Register. All other previously recorded archaeological sites and historic properties in the Yukon Training Area fall outside the project area. USAG-AK has determined that no historic properties will be affected by the proposed project.

2.9 Military Working Dog Facility

USAG-AK has proposed to construct a military working dog facility at Fort Wainwright, on the main post. The facility will provide adequate housing for the military working dogs as well as support spaces for the Military Working Dog Program. This building will include dog runs, food preparation areas, offices, storage, a multi-purpose/mission briefing room, classroom and emergency medical exam and treatment room. The purpose of this new facility is to provide adequate space for indoor kenneling and a training area for use during the harsh arctic winters at Fort Wainwright (Figure 13). The current facility does not provide the required space to effectively run the program. The project is located on map quadrangle FAI D2, T. 1 S., R. 1 W, Section 12.

Survey and Field Methods

In April 2005 the Post Archaeologist made a brief site visit to the proposed project area for the working dog facility (Figure 13). Additionally, a literature review was undertaken regarding the Fort Wainwright cantonment area and the possibility for cultural resources to be located within the project area. The site visit, in combination with a literature review and study of aerial photographs all indicate that the proposed project area has been heavily disturbed by military activities. No cultural resources were identified during the site visit or literature review.

Cultural Resources

There are no known cultural resources located within the area of potential effect for this project.

Results

A site visit and literature review of the proposed project area did not identify any cultural resources within the area of potential effect. All other previously recorded archaeological sites or historic properties in the cantonment fall outside of the proposed project area. USAG-AK determined that no historic properties will be affected by the proposed project.

Figure 13. Location of proposed military working dog facility

3.0 FORT RICHARDSON

Introduction

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). Previous archaeological work at Fort Richardson includes several projects since the late 1970s (Hedman et al. 2003; Reynolds 1996; Shaw 2000; Sheppard et al. 2001; Steele 1979, 1980; Veltre 1978). Of these surveys, only Hedman et al., Steele, Reynolds and Shaw reported the discovery of archaeological sites. Steele's 1980 review identified four sites, all of which contained 20th century cabins associated with early homesteading in the area (ANC-00263, ANC-00264, ANC-00265 and ANC-00268; Steele 1980). Reynolds recorded the multi-component historic site ANC-00822 near Ship Creek, in the vicinity of Moose Run Driving Range. Shaw reported approximately 20 sites, the majority of which comprised military related mounds, foxholes and bunkers. Shaw's work identified one prehistoric site, ANC-01175, consisting of a single lithic flake and a small lithic spall. This site is located within a cleared area along the edge of the Elmendorf Moraine (Shaw 2000). Shaw's and Steele's work indicate that moraine features throughout Fort Richardson, oriented roughly northeast-southwest, represent relatively high probability areas for identifying archaeological sites on Fort Richardson.

Additionally, Hedman et al. (2003) relocated an historic era fish camp site near Whitney Point which was used by the Eklutna Industrial (Vocational) School from 1924 to 1946 (the site was originally identified during a 1994 collaborative study conducted by Nancy Yaw Davis and the Dena'ina team; however, no locational details were recorded). In 1924, the Department of the Interior Bureau of Education built and maintained the Eklutna Industrial (Vocational) School. The fish camp site (ANC-01299) was constructed and used by the school to provide training in traditional fishing methods, while also providing fish for the school's subsistence (Yaw Davis 1994). By 1946 the buildings had been condemned and the school was permanently closed (Chandonnet 1979).

A recent floristic study of Fort Richardson was conducted by Livchar et al. (1997), with an appendix description of the Fort's ecological setting. The following description is from *Vegetation of Fort Richardson* (Lichvar et al. 1997):

"Fort Richardson falls within the Cook Inlet Lowlands Section of the Coastal Trough Humid Taiga Province of Bailey's Ecoregions of the United States (McNab and Avers 1994). Forests in the Anchorage area closely resemble the Boreal Forest of Interior Alaska, although some understory and tree species occur that are typically found in the Coastal Spruce-Hemlock Forest. Fort Richardson's forests have been described as open, low-growing spruce and closed spruce-hardwood forests by Viereck and Little (1972), and as a lowland spruce-hardwood forest by the Joint Federal-State Land Use Planning Commission (1973). Packee (as quoted in Livchar et al. 1997), in examining Alaska's forest vegetation zones, characterizes the region as an area where white spruce *(Picea glauca)* and Sitka spruce (*Picea sitchensis*) naturally hybridize; balsam poplar (*Populus balsamifera*) and black cottonwood *(Populus trichocarpa)* intergrade; and mountain hemlock *(Tsuga mertensiana)* may form the subalpine forest. Vegetation reflects the transitional nature of the climate between maritime and continental. This maritime climatic influence has resulted in a lower incidence of natural fire than is found in the spruce-hardwood forests of interior Alaska (Gabriel and Tande 1983).

Upland sites on Fort Richardson are dominated by paper birch (*Betula paperifera*), white spruce, and, on drier sites, quaking aspen *(Populus tremuloides*). Cottonwood and poplar are common in areas bordering principal streams. Black spruce *(Picea mariana*) is the dominant tree in wetter areas and on some well-drained sites. Most bogs are treeless or support stands of stunted black spruce. Grasses, herbs, willows (*Salix* spp.), and alders (*Alnus* spp.) dominate the vegetation in a narrow band along the Inlet and at elevations above 1,500 feet on the Chugach Mountain slopes' (Livchar et al. 1997: appendix)."

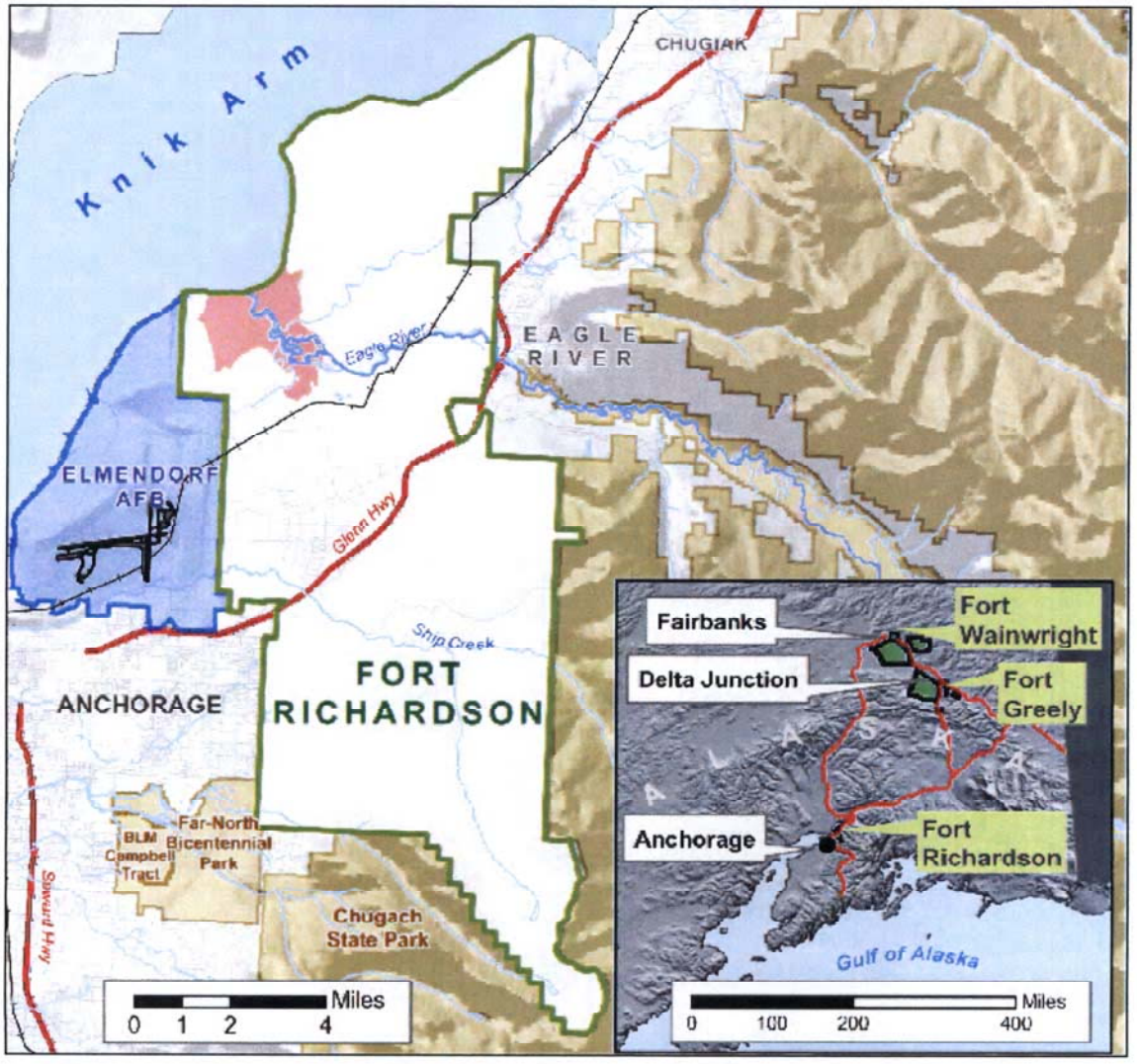

Figure 33. Location of Fort Richardson

3.1 Engineer Expressway and Firing Points 7, 8 and 9 Upgrades

USAG-AK has proposed to upgrade Engineer Expressway, a dirt/gravel road that runs through training areas in the northern portion of Fort Richardson. Additionally, Firing Points 7, 8 and 9, along Engineer Expressway, are also proposed for upgrades (Figure 34). The purpose of upgrades along Engineer Expressway is to improve the existing road and to re-establish hardened road surfaces and drainage features, including crowns, slopes, ditches, water bars and culverts. This will include grading, ditching, installing geotextile and placing fill material. All work will be carried out within 15 meters of the road centerline. Upgrade work at the three firing points will consist of additional clearing and hardening. All three firing points are accessed from Engineer Expressway and have been previously cleared. These projects are located on map quadrangles ANC B8, T15N, R3W, Sections 20, 21, 29, 32 and map quadrangle ANC B7, T15N, R2W, Sections 14, 15, 22 and 23.

Survey and Inventory

In July 2005 USAG-AK cultural resources staff reviewed the proposed project and the existing literature on cultural resources within the Fort Richardson cantonment area. In June 2005 a portion of the project area was pedestrian surveyed by a crew of 4-5 archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University). Julie Raymond-Yakoubian, was the supervising archaeologist for this project. Survey work within the project area was also undertaken in the summers of 2002 and 2003 by CEMML archaeologists (supervised by William Hedman and Kirsten Andersen, respectively).

Parallel pedestrian transects spaced at 20 meters or less were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. In addition to pedestrian transects, 40cm x 40cm shovel tests were excavated in the project area. None of the shovel tests excavated throughout the project area contained any cultural material.

The entire length of Engineer Expressway has been archaeologically surveyed for at least 100 meters on both sides and, for most of its length, for a kilometer on both sides. The area adjacent to the road (for at least 100 meters) around Firing Points 7, 8 and 9 has also been archaeologically surveyed. These three firing points have been previously cleared and disturbed and proposed upgrades will involve re-clearing and earthwork within the firing point boundaries.

Cultural Resources

There are no known cultural resources located in the vicinity of the proposed projects.

Results

After a review of the proposed projects USAG-AK has determined that there are no historic properties located within the project areas. All other previously recorded archaeological sites or historic properties at Fort Richardson fall outside of the proposed project areas. USAG-AK has determined that no historic properties will be affected by the proposed projects.

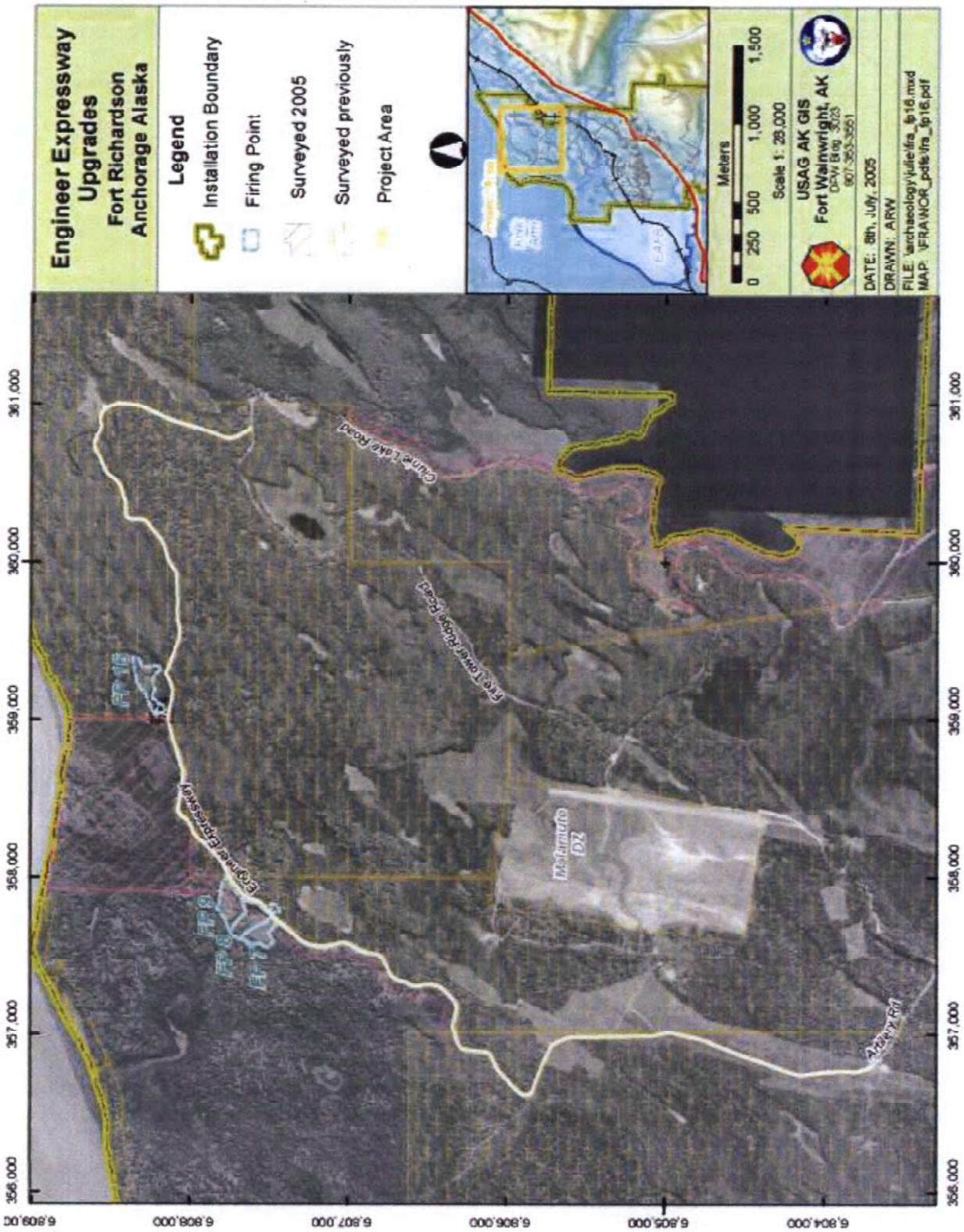

Figure 34. Engineer Expressway and Firing Points 7, 8 and 9

3.2 Ship Creek, Davis Highway and Otter Creek Gravel Pit Expansions

USAG-AK has proposed to expand three existing gravel pits at Fort Richardson; the Ship Creek, Otter Creek and Davis Highway gravel pits (Figures 35-37). These gravel pits will be expanded over time, and no exact dimensions for the expansions are proposed here. The expansions will not, however, expand beyond the 2005 survey areas in any circumstances. This would include any access routes, stockpiling areas and actual gravel removal areas. The purpose of these expansions is to obtain gravel for construction projects throughout Fort Richardson. These projects are located on map quadrangles ANC A8, T13N, R2W, Sections 8 and 9 (Ship Creek pit); ANC B8, T14N, R3W, Section 24 (Otter Creek pit); ANC B8 T14N, R2W, Section 28 (Davis Highway pit).

Surveys and Inventory

In June 2005 USAG-AK cultural resources staff reviewed the proposed project and the existing literature on cultural resources within the boundaries of Fort Richardson. The project areas were each pedestrian surveyed by a crew of 4-5 archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University

Parallel pedestrian transects spaced at 20 meters or less were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. In addition to pedestrian transects, 40cm x 40cm shovel tests were excavated throughout the project area. None of the shovel tests excavated in the project area contained any cultural material.

The area surveyed around the existing Ship Creek gravel pit was generally a spruce forest with scattered birch. An access road for Moose Run Golf Course (ANC-01335, determined not eligible for the National Register in 2003) runs approximately north-south through the surveyed area to the west of the gravel pit. The golf course itself is located to the west and north, and to the south on the opposite side of Arctic Valley Road. A large area to the west and northwest of the existing gravel pit has been previously disturbed and cleared and vegetation there consisted of a very close-growing second growth spruce forest with alder. Various types of military debris were found throughout the forest here. A large area to the east of the existing gravel pit is low and wet. To the north of the pit the surveyed area gradually slopes up to the north towards the Moose Run Golf Course. Shovel testing was done primarily in this area, all with negative results.

The area surveyed around the existing Otter Creek gravel pit was a mixed spruce and birch forest with thick undergrowth of berry bushes and mosses. A large portion of the survey area to the west and northwest of the existing pit was flooded by a large beaver dam on a small creek. Shovel testing was conducted in dry areas away from the beaver-created pond and all shovel tests were negative.

The area surveyed around the existing Davis Highway gravel pit consisted of a mixed spruce and birch forest. Much of the area surveyed had been previously disturbed. The surveyed area generally sloped up towards the north. Shovel testing throughout the project area was negative, with the exception of one shovel test that encountered an isolated piece of military debris (a hinge). The Kermit Roosevelt Memorial Cemetery (ANC-00013) is located along the Davis Highway, to the west of the existing gravel pit. The cemetery is far outside of the proposed project area and will not be impacted by expansion of this gravel pit. A portion of the Eklutna Power Plant Transmission Line (ANC-01330) is also located outside of the project area, but in the vicinity of the Davis Highway gravel pit. The transmission line was found not eligible for the National Register on 10/4/02.

Cultural Resources

There are no known cultural resources located within the proposed project areas.

Results

After a review of the proposed projects USAG-AK has determined that there are no historic properties located within the project areas. Additionally, all other previously recorded archaeological sites or historic properties at Fort Richardson fall outside of the proposed project areas. USAG-AK has determined that no historic properties will be affected by the proposed projects.

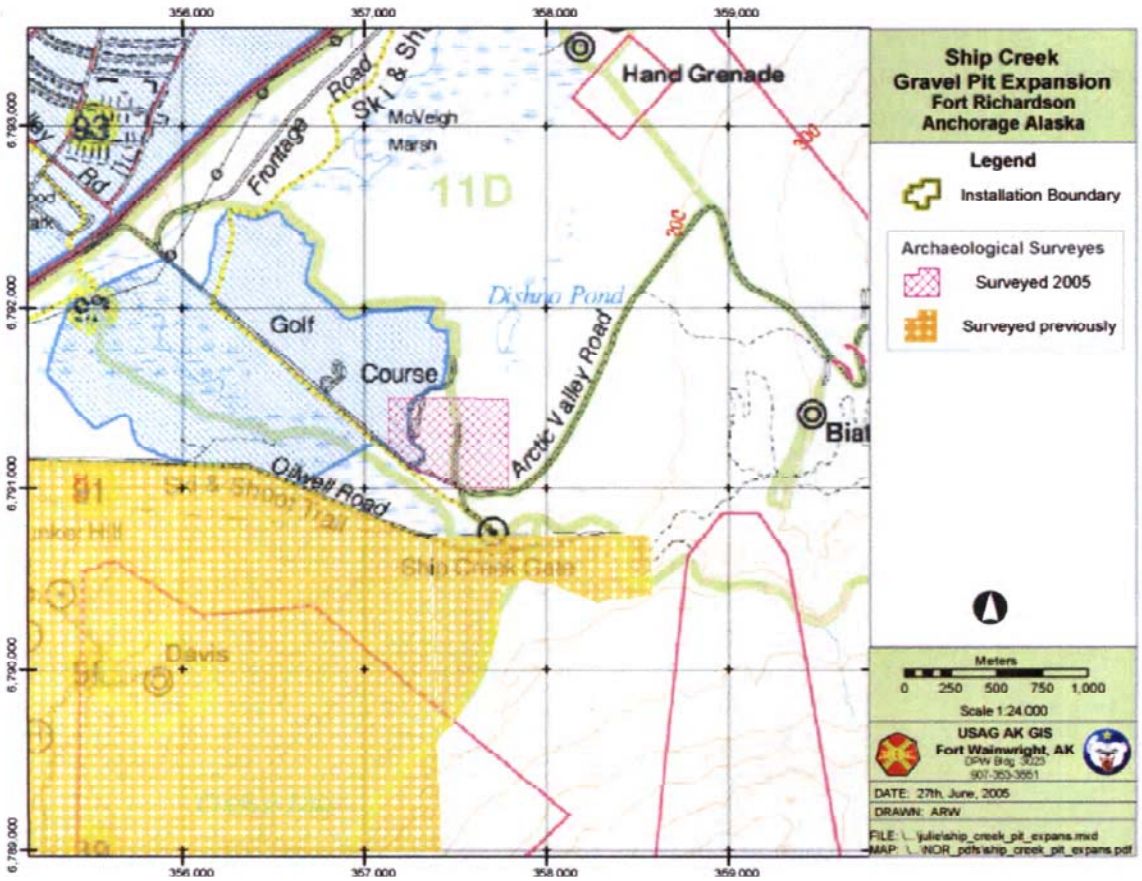

Figure 35. Ship Creek gravel pit expansion (surveyed 2005)

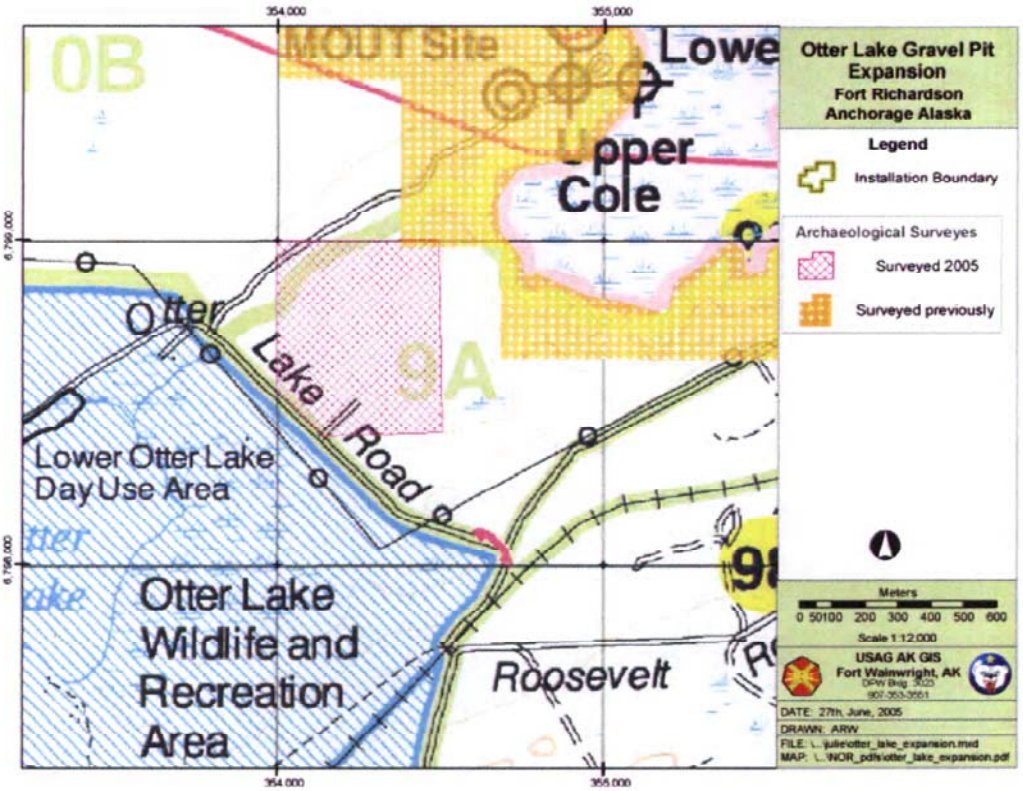

Figure 36. Otter Lake gravel pit expansion (surveyed 2005)

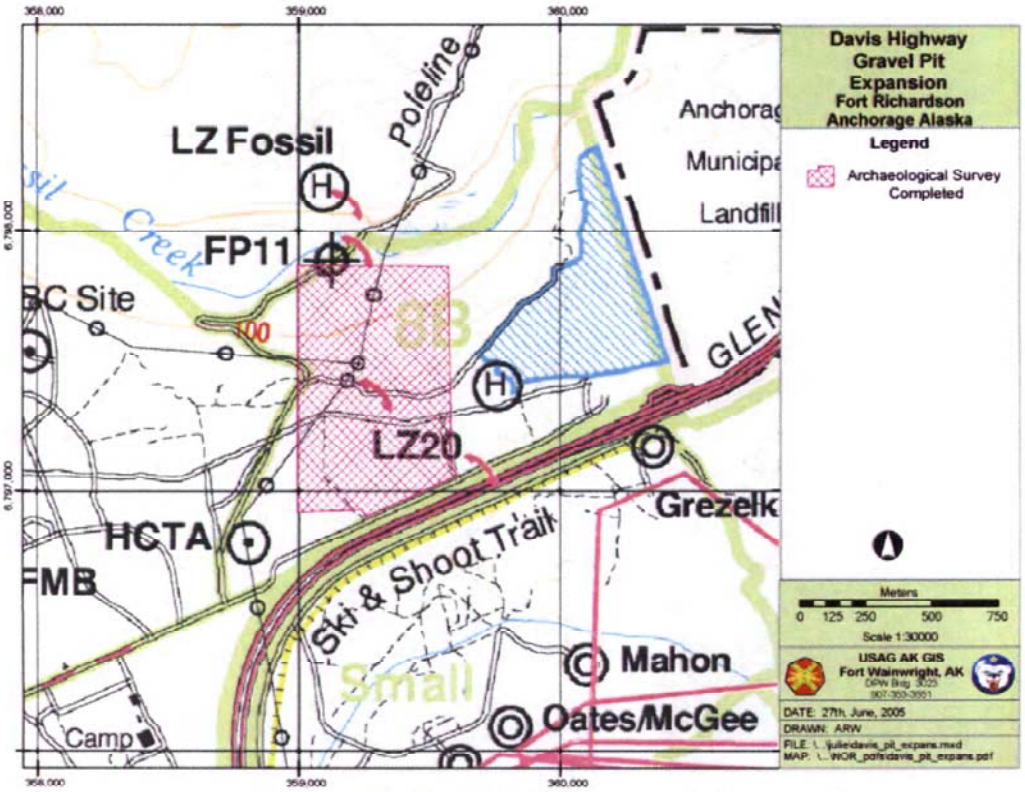

Figure 37. Davis Highway gravel pit expansion

3.3 Military Working Dog Facility

USAG-AK has proposed to construct a new military working dog facility at Fort Richardson (Figure 38). The proposed dog facility will provide adequate housing for the military working dogs as well as support spaces for the Military Working Dog Program. This building will be 2,435 square feet and will include dog runs, food preparation areas, offices, storage, a multi-purpose/mission briefing room, classroom and emergency medical exam and treatment room. The purpose of this new facility is to provide adequate space for indoor kenneling and a training area for use during the cold winters at Fort Richardson. The current facility does not provide the required space to effectively run the program. This project is located on map quadrangle ANC B8, T. 14 N., R. 2 W., Section 32.

Survey and Inventory

In June 2005 USAG-AK cultural resources staff reviewed the proposed project and the existing literature on cultural resources within the Fort Richardson cantonment area. The site of the proposed working dog facility was visited and photographs were taken. This area appears to have been previously cleared and partially developed as a result of construction activities within the cantonment.

Cultural Resources

There are no known cultural resources located within the proposed project area.

Results

After a review of the proposed project USAG-AK has determined that there are no historic properties located within the project area. All other previously recorded archaeological sites or historic properties in the Fort Richardson cantonment area fall outside of the proposed project area. USAG-AK has determined that no historic properties will be affected by the proposed project.

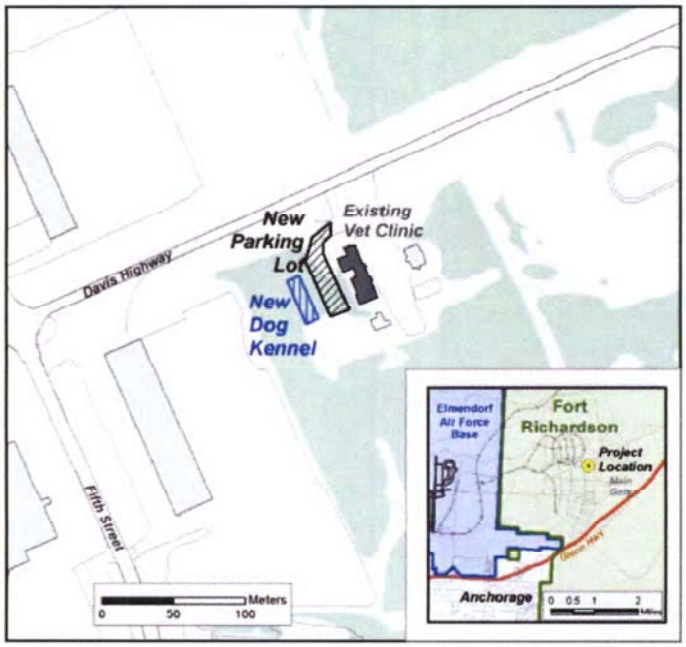

Figure 38. Military Working Dog facility

3.4 Clunie Lake Road Upgrades

USAG-AK has proposed to upgrade Clunie Lake Road, a dirt/gravel road that runs through training areas in the eastern portion of Fort Richardson (Figure 39). The purpose of upgrades along Clunie Lake Road is to improve the existing road and to re-establish hardened road surfaces and drainage features including crowns, slopes, ditches, water bars and culverts. This will include grading, ditching, installing geotextile and placing fill material. This road is currently characterized by poor drainage, insufficient and inappropriate road base and cap material, rutting and large erosion features, which impede access. No road widening will occur and all work will be confined to hardened surfaces. This project is located on map quadrangles ANC B7, T15N, R2W, Sections 22, 27 and 34; ANC B8, T15N, R2W, Sections 33 and 28.

Surveys and Inventory

In June 2005 USAG-AK cultural resources staff reviewed the proposed project and the existing literature on cultural resources within the Fort Richardson cantonment area. In June 2005 a portion of the project area was pedestrian surveyed by a crew of 4-5 archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University). Julie Raymond-Yakoubian, was the supervising archaeologist for this project. Survey work within the project area was also undertaken in the summers of 2002 and 2003 by CEMML archaeologists (supervised by William Hedman and Kirsten Andersen, respectively).

Parallel pedestrian transects spaced at 20 meters or less were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. In addition to pedestrian transects, 40cm x 40cm shovel tests were excavated in the project area. None of the shovel tests excavated throughout the project area contained any cultural material.

The entire length of Clunie Lake Road has been archaeologically surveyed for at least 100 meters on both sides, with one exception. From the "four corners" intersection for approximately 500 meters south, along the east side of the road, has not been archaeologically surveyed. This small portion was not surveyed due to access issues. All upgrade activities here, as along the rest of the road, will be confined to hardened surfaces and no widening will occur.

Cultural Resources

No National Register eligible cultural resources were located during any of the survey activities in 2002, 2003 or 2005. AHRS maps at the Office of History and Archaeology indicate that a segment of the Iditarod National Historic Trail may have run through a portion of the project area. This segment of the trail currently has no AHRS number (personal communication with Mary Hermon, 12/28/05). The possible route of the trail found on AHRS maps differs from that of Clunie Lake Road. Additionally, no evidence of the trail was noted through pedestrian survey or shovel testing.

Results

Pedestrian survey and shovel testing throughout the project area did not identify any National Register eligible cultural resources along, or in the vicinity of, Bulldog Trail.

USAG-AK has determined that no historic properties will be affected by the proposed project.

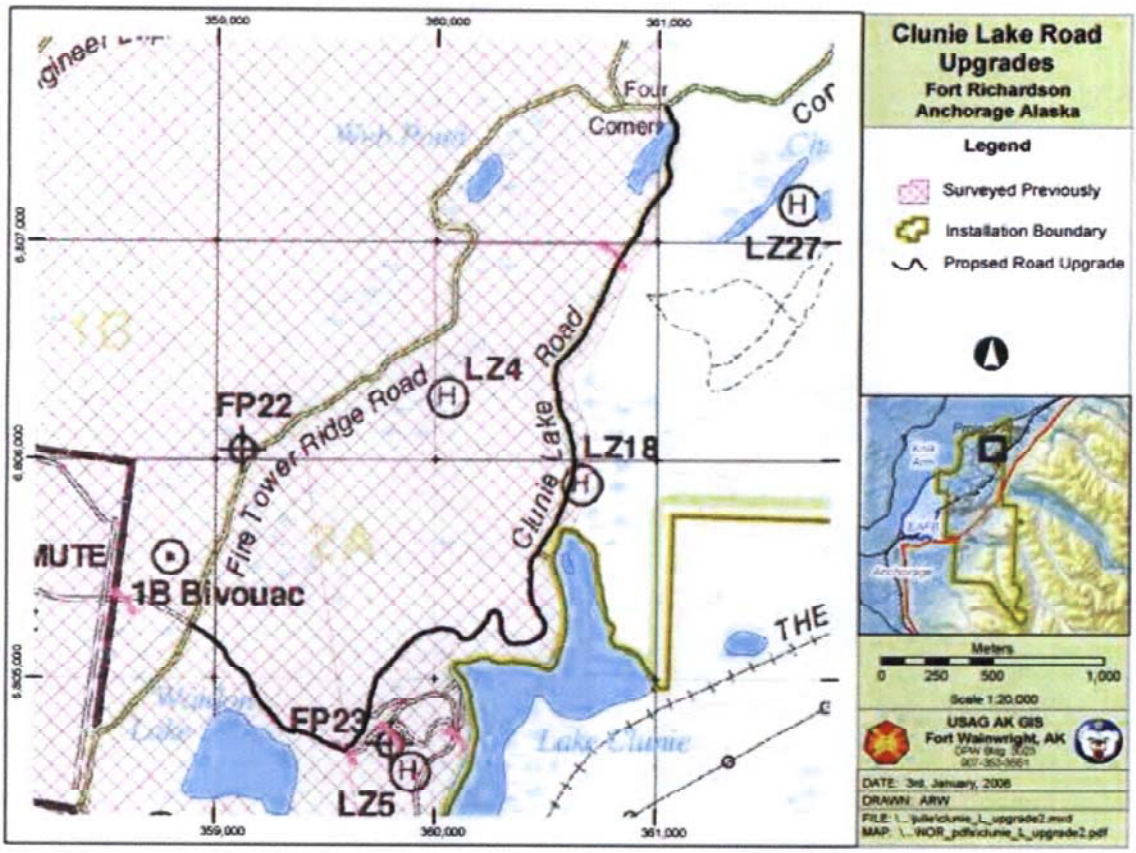

Figure 39. Project area map showing Clunie Lake Road

Figure 40. Backfilling a shovel test along Clunie Lake Road

3.5 Bulldog Trail Upgrades

USAG-AK has proposed to upgrade Bulldog Trail, a dirt/gravel road that runs through training areas in the southeastern portion of Fort Richardson. The trail upgrades will begin at the Davis Range and run south to the installation boundary (Figure 41). The purpose of upgrades along Bulldog Trail is to improve the existing road and to establish hardened road surfaces and drainage features, including crowns, slopes, ditches, water bars and culverts. This will include grading, ditching, installing geotextile and placing fill material. All activities will be confined to hardened surfaces. Upgrading the existing trail will allow for better access to areas used for troop training activities. This project is located on map quadrangle ANC A8, T13N, R2W, Sections 18, 19, 30 and 31.

Survey and Field Methods

In May 2005 USAG-AK cultural resources staff reviewed the proposed project and the existing literature on cultural resources within the Fort Richardson training areas. In June 2005 the southern portion of the project area was pedestrian surveyed by a crew of 4-5 archaeologists employed by the Center for Environmental Management of Military Lands (CEMML, Colorado State University). Julie Raymond-Yakoubian, was the supervising archaeologist for this project. Survey work within the northern portion of the project area was also undertaken in the summers of 2002 and 2003 by CEMML archaeologists (supervised by William Hedman and Kirsten Andersen, respectively).

Parallel pedestrian transects spaced at 20 meters or less were walked in all areas that were not deemed too wet or too steep (>40°) to contain cultural material. Systematic sub-surface testing was undertaken in areas determined to be high probability (e.g., lake margins, ridges, benches adjacent to steeper slopes) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. In addition to pedestrian transects, 40cm x 40cm shovel tests were excavated in the project area.

The entire length of the proposed Bulldog Trail upgrades project has been archaeologically surveyed for at least 100 meters on both sides. For much of its length, several hundred meters or more have been surveyed on each side.

Cultural Resources

There are no known National Register eligible cultural resources located within the proposed project area. Additionally, pedestrian survey and shovel testing throughout the project area did not identify any National Register eligible cultural resources along, or in the vicinity of, Bulldog Trail. No National Register eligible cultural resources were located during any of the survey activities in 2002, 2003 or 2005. AHRS maps at the Office of History and Archaeology indicate that a segment of the Iditarod National Historic Trail may have run through a portion of the project area. This segment of the trail currently has no AHRS number (personal communication with Mary Hermon, 12/28/05). The possible route of the trail found on AHRS maps differs from that of Bulldog Trail. Additionally, no evidence of the trail was noted through pedestrian survey or shovel testing.

In 2003, CEMML archaeologists identified the remains of two log structures in the vicinity of Bulldog Trail (Robertson et al. 2004:14-18). Both of the structures were clearly modern and hastily and incompletely constructed with logs that still had bark attached. These structures were likely built as part of troop training exercises. Numerous fox

holes and other military training features were located in the vicinity of one of the structures, as well as throughout the entire project area.

Results

After a review of the proposed projects USAG-AK has determined that there are no historic properties located within the project areas. Additionally, all other previously recorded archaeological sites or historic properties at Fort Richardson fall outside of the proposed project areas. USAG-AK has determined that no historic properties will be affected by the proposed projects.

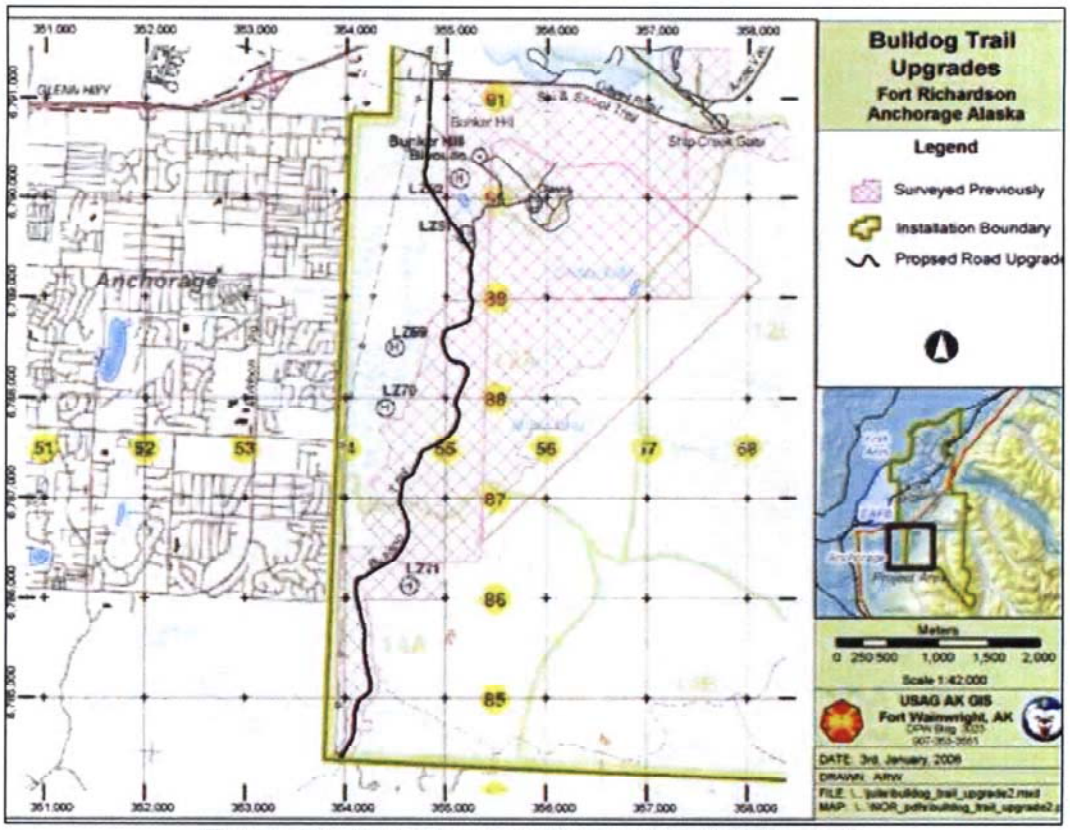

Figure 41. Project area map showing Bulldog Trail

Figure 42. General view of project area, along Bulldog Trail

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