NPS Form 10-900
(Rev. 10-90)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

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1. Name of Property

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historic name Site Summit

other names/site number AHRS Site No. ANC-789

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2. Location

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street & number 12.5 miles east of Anchorage

not for publication N/A

city or town Anchorage vicinity X

state Alaska code AK county Anchorage code 020

zip code 99506

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this _X_ nomination ____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property _X_ meets ____ does not meet the National Register Criteria. I recommend that this property be considered significant _X_ nationally ___ statewide ___ locally. (___ See continuation sheet for additional comments.)

[illegible] LC — 30 Nov 95
Signature of certifying official — Date

Post Commander, Fort Richardson, AK
State or Federal agency and bureau

In my opinion, the property _X_ meets ____ does not meet the National Register criteria. (___ See continuation sheet for additional comments.)

Judith E. Bittner — Sept. 22, 1995
Signature of commenting or other official — Date

Alaska
State or Federal agency and bureau

4. National Park Service Certification

I, hereby certify that this property is:

____ entered in the National Register _____ _____
___ See continuation sheet.
____ determined eligible for the National Register _____ _____
___ See continuation sheet.
____ determined not eligible for the National Register _____ _____
____ removed from the National Register _____ _____

____ other (explain): _____

_____ _____ _____
Signature of Keeper — Date of Action

5. Classification

Ownership of Property (Check as many boxes as apply)

___ private
___ public-local
___ public-State
_X_ public-Federal

Category of Property (Check only one box)

___ building(s)
_X_ district
___ site
___ structure
___ object

Number of Resources within Property

Contributing	Noncontributing	
8	_____	buildings
2	_____	sites
17	1	structures
_____	_____	objects
27	1	Total

Number of contributing resources previously listed in the National Register 0

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.) N/A

6. Function or Use

Historic Functions (Enter categories from instructions)

Cat: Defense **Sub:** Air facility

Current Functions (Enter categories from instructions)

Cat: Vacant/not in use Sub:

7. Description

Architectural Classification (Enter categories from instructions)

No style

Materials (Enter categories from instructions)

foundation Concrete
roof Concrete, corrugated metal, built-up
walls Concrete, corrugated metal, cement asbestos board
other

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

Site Summit, a Nike-Hercules missile installation, is in the Chugach Mountains overlooking Fort Richardson Army and Elmendorf Air Force bases and the City of Anchorage in southcentral Alaska. It sits on Mount Gordon Lyon, named for the site project engineer in 1967. Site Summit is 12.5 miles east of downtown Anchorage and can be reached from the Glenn Highway by the Arctic Valley Road. The approximate 244 acre site consists of a Battery Control area at the 3,900 foot elevation and a Missile Launch area at the 3,100 foot elevation. These are connected by a 1.5 mile gravel road. Two magazines are located approximately midway between the Battery Control and Missile Launch areas on the east side of the road. There are 27 contributing properties including 8 buildings, 2 sites, and 17 structures, and 1 noncontributing structure.

Leon Chatelain, Jr., a Washington, D.C. architect, in cooperation with Spector and Montgomery Architects, a firm in Falls Church, Virginia, designed the original Nike facilities. The plans were generic, which local architects and engineers modified to meet specific site conditions. The main features of a Nike facility included a battery control building with acquisition and tracking radars, missile launch and storage structures, and a launch control building. Part of the Nike installation layout was to

have the Missile Tracking Radar within 1,000 to 6,000 feet of the launch area. The battery control area was typically on the site's highest elevation.

Engineers for the Alaska Nike sites adapted the standard plans for subarctic conditions, isolated locations, and difficult terrain. The basic plan was modified to consolidate the battery control functions with the personnel housing, dining, barber shop and PX functions in one composite building. The missile firing control van was housed inside the Launching Control Building. Design adaptations included de-icing features for radar and launch structures' operating mechanisms, and utilidors for protecting the power, heat, water and communication lines from extreme cold temperatures. These utilidors connected all structures in the launch area.

Site Summit was one of eight Nike-Hercules missile sites in Alaska, and one of three in the Anchorage area. Today, it is the only Nike missile site left in Alaska that retains its physical integrity.

Construction of Site Summit was undertaken as a joint-venture by Patti-MacDonald Company and the M-B Contracting Company. Work began in May 1957 and the facilities were completed in September 1958. Connelly Construction Company installed a seven mile long 7,200 volt primary overhead electric line to provide power to the site.

Unlike the other Alaska sites, Site Summit was constructed on a mountain. This necessitated the blasting of approximately 60 feet of a mountain peak to provide a level area for the Battery Control building. Another ridge was leveled for the launch area. In addition to the massive rock work, it was necessary to construct 1.5 miles of road that rose 2,000 feet. The work was performed in two short construction seasons (May-September).

The equipment arrived in February 1959, and the facility was operational by May. Live missile firings from Site Summit occurred each winter between 1960 and 1963 as practice exercises. The first firing highlighted problems with the target tracking and acquisition radar, problems which had been discovered elsewhere. To correct the problems, in fall 1962, Ghemm Co., Inc. and Pacific General Construction Company built a free-standing High Power Acquisition Radar (HIPAR) tower and an operations building northwest of the Battery Control Building. In addition, a Target Ranging Radar was built on the southeast side of the Battery Control Building, to assist with the Target Tracking Radar and to counter enemy radar jamming attempts.

In 1964, the Army halted live firings at Site Summit. In the 1970s, the Army started closing Nike bases nationwide. Site Summit stood down May 10, 1979, and was deactivated July 30, 1979. Sensitive military equipment including the HIPAR radome and tower, the missiles, and computer were removed. Guards continued patrolling the site until 1986.

PRESENT APPEARANCE

Because of its isolated location and restricted access, the buildings at Site Summit still stand. Due to the lack of maintenance since the late 1970s and the harsh climate, the unoccupied buildings are deteriorating. Antennas, transmitters, and receivers located just west of the Battery Control Building have been installed since the period of significance. Used for communications, they are consistent with the historic use of the area.

Site Summit is the only Alaska Nike site that retains its historic integrity. The five Nike sites located in the Fairbanks area (Jig, Love, Peter, Mike and Tare) were heavily vandalized by local residents immediately following their decommissioning in 1970 and 1971, and in 1985 most structures were demolished. The Anchorage area had three Nike sites (Summit, Bay and Point). At Site Point, located at Point Campbell, a launch structure was converted into a recreational building by the Municipality of Anchorage. Additions to this structure have altered its appearance. Three other Site Point launch structures remain. At Site Bay, located at Goose Bay, the State of Alaska converted the battery control building in 1985 for use as a correctional center. It has subsequently been abandoned. Other facilities remain at Site Bay, but are in advanced stages of deterioration.

CONTRIBUTING PROPERTIES (Keyed to Site Summit Maps A and B)

Battery Control Area (Keyed to Site Map A)

The Battery Control area is at the 3,900 foot elevation. It is approximately 5,000 feet northeast of the Launch area. Contributing buildings and structures that make up the Battery Control area include: the Battery Control Building, the Target Tracking Radar, the Missile Tracking Radar, the Target Ranging Radar, an Electrical Substation, the HIPAR Building, the HIPAR foundation, the Helicopter Pad, the Bore Mast, and the Vehicle Maintenance Building foundation. At one time a rudimentary road branched off the main road to the northeast to the Bore Mast site. It is overgrown with brush and no longer passable.

1. **Battery Control Building** (building) (AHRS Site No. ANC-792). (See photograph #6). The Battery Control Building is a composite T-shaped building. This two-story, flat roofed building is oriented on a north/south axis with the leg of the "T" on the west elevation. Measuring 44 feet by 232 feet, the main portion of the building is wood framed with 16" cement asbestos board panel siding with 2-3/8" battens. The length of the building is divided into 17 even bays (1-17 north to south). Tie-downs consisting of 1" diameter rods connected to large concrete blocks are on

the wood framed sides of the building and spaced at every other bay. On the east elevation, bay 9 has a personnel door centrally located on the first floor and enclosed by an arctic entry, bays 15-17 have large 6 light aluminum windows only on the second floor, bays 8 and 10 have large 12 light aluminum windows on the first floor and 6 light aluminum windows on the second floor. All remaining bays have the large 6 light aluminum windows on both first and second floors. A concrete fire wall is placed between bays 6 and 7. The west wall of the main portion of the Battery Control Building has the same bay layout, but window and door placement is more random. The leg of the "T" occupies bays 6-9. Bay 11 contains a personnel door on the first floor and a 12 light aluminum sash window on the second. Bay 17 contains two personnel doors on the first floor with a 12 light aluminum sash window on the second. Bays 1, 3, 4, 15, and 16 have windows only on the second floor. Bay 5 has 3 light aluminum sash windows on the first and second floors. The remaining bays have 12 light aluminum sash windows placed in the first and second floors. North and south elevations of the main portion of the building have one 3 light aluminum sash window placed off center on the first floor as their only fenestration.

The leg of the "T" measures 62 feet by 66 feet. This two story, flat roofed building is constructed of reinforced concrete framing with tilt-up concrete panel infill. North and south elevations have six bays (1-6 east to west). On the north elevation, bays 1 and 2 are 12 feet high with a personnel door placed in bay 2's western edge. Roof height of bays 3 to 6 is level to bays 1 and 2, but is 5 feet taller due to the slope of the site. There are personnel doors in bays 3 and 4 and a 3'x 3' louver at mid-height in bay 6. Bay 6's roof level is approximately 7 feet taller than the other bays. The south elevation's bays 1 and 2 are plain. Bay 3 has a personnel door and two louvers. Bay 4 and 5 each has a personnel door and a slightly larger adjacent removable panel. Bay 6 has a personnel door. The west elevation of this part of the building has four bays with the northern two bays two stories and the southern two one story. The southern two bays are plain. The two northern bays are identical with a personnel door and adjacent removable panel on the first floor and two large louvers on the second floor. On the south end of bay 1 is the concrete mount for the acquistion radar dome. The radar and dome have been removed. A flagpole is located west of the building, a few feet from the personnel door in bay 11.

The floor plan of the first floor of the main portion of the building consists of a central hallway flanked by offices, storage rooms, and restrooms in the northern half, and an open dining hall and kitchen in the southern half. The second floor has a central hall for the length of the building flanked by enlisted soldiers quarters, officer quarters, and restrooms. The first floor of the concrete leg of the "T" housed the battery control van, radar control van, radio and communications, van maintenance repair room, the generator room, and the boiler/mechanical room. The second floor of the leg of the "T" only existed in the southeast corner and was the initial acquisition radar mount.

The present condition of the Battery Control Building is poor. Not weathertight, the interior is deteriorating. Although the windows are boarded, the wind is beginning to take its toll on the building.

2. **Target Tracking Radar (TTR)** (structure) (AHRS Site No. ANC-793). The Target Tracking Radar shelter is located adjacent to the northeast corner of the Battery Control Building. The first floor of this structure is a 20-foot in diameter, 15,000 gallon fiberglass water tank. This water tank is freestanding. A clamshell metal enclosure is mounted on top for housing the TTR. The TTR is approximately 25'x 18'x 21'. It is connected to the Battery Control Building by an enclosed catwalk. Only the structure and mechanical equipment for operating the clamshell remain; the radar and associated technology were removed when the site was decommissioned. The TTR is structurally sound.

3. **Missile Tracking Radar (MTR)** (structure) (AHRS Site No. ANC-794). The Missile Tracking Radar shelter is located adjacent to the southeast corner of the Battery Control Building. The MTR structure is identical to the TTR structure and in the same condition. The TTR is within 5,000 feet of launch structures. It is structurally sound.

4. **Target Ranging Radar (TRR)** (structure) (AHRS Site No. ANC-795). (See photograph #7). The Target Ranging Radar shelter was added in the fall of 1962. It is located approximately 22 feet east of the Battery Control Building. This freestanding structure is a 12'x 12' steel frame tower approximately 34 feet high. It is surmounted by a 16'x 9' building that housed the radar. A circular metal stair provides interior access to the top of the tower. A clamshell structure approximately 18'x 24'x 5' formed the operable roof system. All radar technology has been removed from the structure. The tower is served by two utilidors that originate from bays 4 and 8 of the Battery Control Building. The utilidor from bay 4 is approximately two feet square and ten feet off grade. The bay 8 utilidor is two feet wide and at grade, depth unknown. These provide power and communications to the TRR. The tower's corrugated aluminum siding is being removed by winds. The TRR is structurally sound.

5. **Electrical Substation C** (structure) (AHRS Site No. ANC-796). This is a rectangular metal framed building with corrugated aluminum siding and gabled roof measuring approximately 20'x 52'. It is located 40 feet southwest of the Battery Control Building. The fenestration consists of a double leaf door centrally placed on the north elevation, a vent hood on the west gable end, and two small cupolas at the roof's ridgeline. The substation is in good condition.

6. **Vehicle Garage Foundation** (site) (AHRS Site No. ANC-797). The site is approximately 200 feet west of the Battery Control Building. The garage was removed sometime after 1981. The concrete foundation and slab that measures approximately 16'x 42' is all that remains.

7. (See non-contributing property section on page 13).

8. High Power Acquisition Radar (HIPAR) Tower Site (site) (AHRS Site No. ANC-798). The HIPAR Tower site is located immediately west of the HIPAR Building. When built in 1962, the HIPAR tower consisted of six metal legs supporting a large radome and measured 90 feet high. The radome consisted of 275 sections of white plastic bolted together. All that remains of the HIPAR Tower is its octagonal concrete foundation walls that measure approximately 25 feet per side and six feet in height.

9. High Power Acquisition Radar (HIPAR) Building (building) (AHRS Site No. ANC-799). This building was added in fall 1962. It is constructed of reinforced concrete and measures approximately 34'x 50'. This building is approximately 80 feet northwest of the Battery Control Building. It is in good condition. Whip communication antennas have been added around the roof perimeter.

10. Helicopter pad (structure). A gravel pad, measuring 120 feet in diameter, is approximately 300 feet northeast of the Battery Control Building. It is located on the inside radius of the last switchback of the road accessing the site, approximately 30 feet below the Battery Control Building's site elevation. The pad is in good condition. Adjacent to the northwest edge of the pad is a 5'x 8' concrete structure, part of the wastewater and sewage treatment system.

11. Bore Mast (structure). This is located 520 feet west of the Battery Control Building. It is a single wood pole approximately 34 feet tall imbedded in a concrete base. The mast is in fair condition, but has been stripped of its electronics used to calibrate the tracking radars.

Road Area (Keyed to Site Map B)

12. Road (structure). The road provides access between the Battery Control area and the Launch area. It is 1.5 miles long and constructed of gravel. From the Launch area to the Battery Control area, the two lane road requires switchbacks to climb approximately 1,000 feet. The High Explosive and Guided Missile magazines and Sentry Station are associated with the road. To minimize installation damage and personnel harm if the high explosives magazine exploded, the structure was located at a safe distance away from the battery control and launch areas. These magazines were, probably, seldom used as they were not secured by fencing.

13. High Explosive Magazine (structure) (AHRS Site No. ANC-800). The High Explosive Magazine is located on the east side of the road, 1.2 miles southwest of the Battery Control Building. The magazine, also known as an ordnance igloo, was designed to explode upward. The structure is poured reinforced concrete and measures approximately 24'x 40'. The front of the magazine is exposed concrete with an opening 16'x 16' with two 6" thick metal doors. On either side of the doors are blast vents approximately 1.5'x 4', placed three feet above grade. The front exposed concrete has

wings at either end that act as retaining walls for the earthen fill covering the structure at a 1-1/2:1 repose. An I-beam extends from the back of the magazine through the front doors and out approximately 16 feet to an I-beam supporting frame. This beam formed an overhead rail for handling high explosives stored in the magazine. The structure held high explosives used for the test missile firings and for arming non-nuclear Nike missile warheads. The magazine is in good condition.

14. Guided Missile Magazine (structure) (AHRS Site No. ANC-801). The Guided Missile Magazine is on the east side of the road, approximately 350 feet south of the High Explosive Magazine. It is identical to the High Explosive Magazine.

15. Sentry Station (building) (AHRS Site No. ANC-802). A sentry station is located on the west side of the road just northwest of the Launch area. It was the check point for traffic traveling to the Battery Control area. The 3-sided log building measures approximately 9'x 12' and has a gabled roof. A personnel door is on the building's gable end that faces away from the Battery Control area. The remaining sides have window openings. The window sashes and door are gone. The building is sited in the middle of the road, forcing arriving and departing traffic to pass on either side. The building is in fair condition.

Launch Area (Keyed to Site Map B; See Photograph #3)

The Launch area is at the 3,100 foot elevation, approximately 5,000 feet southwest of the Battery Control area. The Launch area consists of two areas defined by double perimeter fencing. In the outer fencing are the Sentry Station, Guided Missile Maintenance Facility, Vehicle Maintenance Shop and Storage Building, Launching Control Building, Electrical Substation, and the Dog Kennel. The outer fencing is chainlink, eight feet high with three strands of barbed-wire mounted on top and slanted outward. In the inner fenced area are the Missile Launch and Storage #1 and #2 structures, two Electrical Substations, Sentry Station, Fuse and Detonator Magazine, and the Missile Warhead Magazine. This inner fence is eight feet high chainlink with two-2 feet diameter concertina wire on top. A gravel road encloses the area adjacent to the inside face of the outer fence. All buildings and structures in this area are in fair condition.

Outer Fenced Area

16. Sentry Station (building) (AHRS Site No. ANC-803). The station is located on the north side of the entrance to the Launch area. It is a wood framed building measuring approximately 6'x 8' and covered with plywood painted white. Its shallow sloped shed roof extends 2.5 feet beyond each wall plane. Fenestration consists of 1/1 double hung sash windows on each end wall, two 1/1 double hung sash windows on the back elevation, and a glassed personnel door and a 1/1 double hung sash window on the front facade. The station is in fair condition with all openings covered with plywood.

17. Guided Missile Maintenance Facility (building) (AHRS Site No. ANC-804). This facility is a one story, shallow gabled roof building measuring25'x 50'. It has a concrete foundation wall that extends above grade to form a three foot pony wall. Above this pony wall, the building is 2 x 4 wood frame sheathed in corrugated metal. The building is open in the interior with a clear height of two stories. Fenestration consists of 8'x 12' overhead doors placed on both building sides at the north end to form apull-through access.

18. Vehicle Maintenance Shop and Storage Building (building) (AHRS Site No. ANC-805). This is a wood framed building measuring 40'x 61' and placed into the hill. It is sided with cement asbestos panels with wood battens and has a built-up shed roof. Fenestration consists of five overhead doors in the front side. Four of these are 10 feet wide, and the fifth is 14 feet wide. The back side of the shop is 11 feet high and the front is 14.33 feet high. The back wall is poured concrete and acts as a retaining wall.

19. Launching Control Building (building) (AHRS Site No. ANC-807). (See photograph #4). This building is located 50 feet southeast of the Vehicle Maintenance Shop and Storage Building. Its appearance suggests three buildings have been joined to form a single building (see photograph #4). The easternmost portion is a later addition as the 1959 as-builts do not show it.

The central portion of the building is wood frame construction with plywood siding and built-up flat roof. It measures 60'x 97' and has a northwest/southeast orientation. The first 24 feet of the length is a clear two-stories and was the missile storage area. It has an overhead crane in the second story clear space. Overhead doors, each measuring 10'x 14' are placed on opposite elevations, creating a pull-through for bringing the missiles to the building. The remaining length is one-story in height with one personnel door placed adjacent to the overhead door on the building's northeast elevation. Three large double fixed single sash windows are on the southeast elevation. In this portion of the building, an open space adjacent to the Missile Storage area was for missile repair and testing. The rest of the area had a latrine, parts room, first aid room, ready room, corridor, and office.

The southern 1/4 of the building is a reinforced concrete flat roofed building measuring 37'x47'. It extends approximately 24 feet beyond the building's southwest elevation. This portion of the Launching Control Building contained rooms housing the launching control van, boiler room, pump room, and compressor room. A 15,000 gallon above ground water tank is adjacent to the northwest elevation.

The third portion is a concrete block, shed roofed building adjacent to the central portion's northeast elevation. Fenestration consists of a personnel door flanked by a single light fixed sash window on the southeast elevation and a single light fixed sash window on the northeast elevation.

This building portion was added sometime between 1959 and 1963.

20. Electrical Substation B (structure) (AHRS Site No. ANC-808). This substation is located 40 feet northeast of the Launching Control Building. It is a metal framed, gabled building that measures 24'x 27' and has corrugated aluminum roof and siding.

21. Dog Kennel (structure) (AHRS Site No. ANC-809). The structure is approximately 350 feet south of the Launching Control Building. It is a frame building approximately 15'x 12' with a gable roof. It is equally divided into ten kennels, five to a side. Abutting the south elevation is a chainlink fenced area that forms a dog run.

Inner Fenced Area

22. Sentry Station (building) (AHRS Site No. ANC-806). This sentry station is on the north side of the inner fence's gate. It is a wood framed building measuring 8'x 12'. Its shallow sloped shed roof extends approximately 2.5 feet beyond each wall plane. It is sheathed with plywood and painted white. Its fenestration is similar to the outer fence sentry station. All openings are boarded with plywood.

23. Missile Launch and Storage #1 (B) (structure) (AHRS Site No. ANC-810). This structure is constructed of poured reinforced concrete with tilt-up concrete panels. It measures 58'x 113'. A large concrete blast pad that measures 75'x 160' is adjacent to the front of the structure. Attached to the center of the rear wall is the plan control and personnel station. This is reinforced concrete and measures 28'x 29'. A 27'x 7' concrete passage provides exterior access to the station. This structure is covered on three sides by earthen fill at a 1-1/2:1 repose. A 12' high earthen berm is in front of the blast pad.

Features of interest are the snow melt equipment and the cable trenches. Cables pulled carriages which transported the missiles from the structure to the blast pad. Integral to the concrete blast pad are heating coils. Heated water circulated through these coils to keep the blast pad and associated launch equipment free of ice and snow.

24 and 27. Electrical Substations D (two structures) (AHRS Site Nos. ANC-811 and ANC-812). These two identical electrical substations that are identified as "D" on the as-builts. These are metal framed, corrugated aluminum structures with gable roofs. They each measure approximately 14'x 24'. They are located approximately 55 feet behind each of the Missile Launch and Storage structures.

25. Fuse and Detonator Magazine (structure) (AHRS Site No. ANC-813). This earthen covered structure is constructed of reinforced concrete and measures approximately 9'x 10'x 6'. A 3'x 3' metal door is on its exposed concrete north facade. A vent on top provides air circulation through the structure. This magazine is located equal distance from each of the

Missile Launch and Storage structures, directly southeast of Missile Launch and Storage #1 and northeast of #2.

26. Missile Launch and Storage #2 (A) (structure) (AHRS Site No. ANC-814). This structure is approximately 290 feet southeast of Missile Launch and Storage #1. It is identical to #1.

28. Missile Warhead Magazine (structure) (AHRS Site No. ANC-815). (See photograph #5). This structure is approximately 300 feet southeast of Missile Launch and Storage #2. It is identical to the High Explosive and Guided Missile magazines along the road.

NON-CONTRIBUTING PROPERTY (Keyed to Site Map A)

7. Communication Structures. (See photograph #8). The only non-contributing properties on the site are communication structures that are currently used by the Army, FAA and private companies. These consist of three triangular open webbed towers, each approximately 45 feet high with 1 to 5 six foot diameter microwave dishes. Two towers have small utility buildings at their bases. The buildings measure approximately 10'x 21'. These towers are clustered 70 feet west of the Battery Control Building. Although recently placed, these structures do not intrude on the integrity of the Battery Control area.

8. Statement of Significance

Applicable National Register Criteria (Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

- X A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- ____ B Property is associated with the lives of persons significant in our past.
- ____ C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- ____ D Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations (Mark "X" in all the boxes that apply.)

- ____ A owned by a religious institution or used for religious purposes.
- ____ B removed from its original location.
- ____ C a birthplace or a grave.
- ____ D a cemetery.
- ____ E a reconstructed building, object,or structure.
- ____ F a commemorative property.
- X G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance (Enter categories from instructions)
Military

Period of Significance 1959-1979

Significant Dates 1959

Significant Person (Complete if Criterion B is marked above)
N/A

Cultural Affiliation N/A

Architect/Builder United States Army Corps of Engineers, Patti-MacDonald Company, M-B Contracting Company, and Connolly Construction Company

Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.)

Site Summit, a United States Army Nike-Hercules missile installation, is a manifestation of American military defense during the Cold War. The site demonstrates the political thinking of the 1950 and 1960s, when, for the first time, military strategies included nuclear weapons. It represents a critical element of the extensive United States defense network which spread across Alaska and the North American continent. Site Summit operated as an active missile battery from May 1959 to July 1979. During the 1960s, live practice firings from the site indicated its readiness to deter enemy aircraft from attacking the nearby Army and Air Force bases and the City of Anchorage. Although the site is less than fifty years old, Site Summit is the only Nike site of eight built in Alaska that retains its physical integrity. Site Summit also represents the unique design adaptations made to all the Alaskan Nike sites to accommodate subarctic conditions. Features included retractable radar covers at the battery control area, heating coils at the launch area to permit de-icing of the blast pad, and utilidors for power, heat, water and communication lines.

In sum, Site Summit is exceptionally important as a key Army installation for detection and deterrence of enemy aircraft and for its role in test firing Nike missiles. It is an example of technological distinction because of specialized construction methods and as a rare survivor of this class of property in Alaska.

NIKE MISSILE DEVELOPMENT

By 1944, the United States Army recognized that advancements in Germany's aircraft and missile technology had made America's existing conventional artillery obsolete. In response, Army ordnance studies focused on developing a surface-to-air guided missile system that could intercept and destroy attacking planes. From 1945 to 1953, Bell Laboratories, Western Electric Company, and Douglas Aircraft developed an electronically guided missile system for the Army. The system was named Nike after the Greek goddess of victory.

In 1954, Nike-Ajax, designated SAM-A-7, was deployed by the U.S. Army to Fort Meade, Maryland. Concurrent with the emplacement of Nike-Ajax installations around major metropolitan areas, the Nike model continued to be developed. The improved model, Nike-Hercules, designated SAM-N-25, "B", was designed to intercept a formation of supersonic enemy bombers and to operate effectively at high or low altitudes. According to a 1958 press release, the Nike-Hercules was "fifteen times as effective" as the Nike-Ajax (Gunston, p.171). The Hercules missile could travel 87 miles down range and up 150,000 feet in altitude. It had great maneuverability, a speed of Mach 3.65, and a more powerful warhead than the Ajax. The missile could be armed with either a high explosive or nuclear warhead. Nike was

considered to be the most formidable of the Army's antiaircraft weapons (Atkinson). In June 1958, Nike-Hercules began replacing Nike-Ajax emplacements. In the early 1960s, there were 274 Nike-Hercules batteries, with over 3,000 Nike launchers and 10,000 missiles in the United States.

NIKE IN ALASKA

Alaska, with its close geographic proximity to the Soviet Union, was considered instrumental for providing advance warning to the rest of the United States. The Alaska defense network included ground-based radars, such as the Distant Early Warning Line, which were tied into aircraft control warning centers and the Alaskan North American Air Defense Command (NORAD) Region Control centers. The regional NORAD centers were tied into the commanding NORAD center in Colorado. Once enemy aircraft were identified, a coordinated response system was in place with defense weapons that included fighter-interceptors equipped with air-to-air missiles, anti-aircraft artillery, and surface-to-air missiles, which included the potent Nike-Hercules.

In 1955, the military decided to place the Nike-Hercules system, then under development, in Alaska. Site locations near Anchorage and Fairbanks were selected to defend the major military installations. Between 1957 and 1959, eight Nike installations were built in Alaska, three near Anchorage and five near Fairbanks. Site Summit in Anchorage was situated to protect Fort Richardson Army Base, Elmendorf Air Force Base, and the City of Anchorage. The other Anchorage Nike sites were Site Bay located across Knik Arm near Goose Bay, and Site Point located near Point Woronzof.

SITE SUMMIT

An access road from Ski Bowl Road (now known as Arctic Valley Road) was used during the 1950s to reach an Air Force radio relay station located at the 3,000 foot elevation, 1/2 a mile northwest of what became the launch area. Off this road, the Alaska District of the U.S. Army Corps of Engineers, which supervised construction of the Nike installations, surveyed the land where Site Summit was to be built in 1957. In April 1957, the Corps contracted with Patti-MacDonald Company and the M-B Contracting Company, Anchorage, to construct the three Anchorage Nike installations for about $10 million. Construction of the structures at Site Summit began in May 1957 and was completed by September 1958. The equipment arrived in February 1959 and in May the battery was declared operational.

COMMAND AND PERSONNEL

The United States Army was responsible for maintaining and operating the Nike sites. Command and personnel for the Nike-Hercules sites in Alaska were organized into two battalions, one with headquarters at Fort Richardson near Anchorage and one at Fort Wainwright near Fairbanks. In Anchorage, defenses were staffed by the 4th Missile Battalion, 43rd

Artillery, redesignated the 1st Battalion, 43rd Air Defense Artillery in 1971. The Anchorage battalion consisted of four batteries (a battery included a control station and two missile launch and storage structures with four launchers): Battery B, Site Summit; Battery C, Site Bay; and Battery A, Site Point, known as a double battery because it had four launch structures.

Fort Richardson provided support for the Nike site operations including vehicle maintenance and personnel housing. A building located at mile 3 of the Glenn Highway housed assembled nuclear missile warheads, brought from out-of-state. When needed, warheads were transported to Site Summit and attached to the booster missile sections.

Typically, 125 soldiers were needed to operate a Nike site (Milton "Bud" Halsey 4/26/95). Housing at the Battery Control building could accommodate fifty men. Although not all personnel were required to live on the premises, the site was staffed 24 hours a day, seven days a week. For security reasons, the enlisted men knew only their specific job, whether it was operating radar or assembling missiles.

NIKE MISSILE SYSTEM OPERATION

The Nike missile system consisted of acquisition and tracking radars coordinating information through a computer (the radars and computer were located at the Battery Control area) to guide a missile to its target. Two acquisition radars swept the sky looking for enemy aircraft. Once an enemy target was identified, the tracking radar locked onto the target and fed information about the enemy's movement to the computer. The target ranging radar prevented the enemy's attempts to jam the tracking radar. Information about the target was relayed from the missile tracking radar to the missile, ready at the launch site. At the appropriate time, the Battery Control Officer commanded the Launch Control Officer, in the Launching Control building, to push the "fire" button. Radars worked in unison to relay information about the target to the missile in flight. The computer calculated the impact point and kept the missile on target. When it neared the target, the missile warhead exploded on command from the computer.

LIVE MISSILE FIRINGS 1960-1963

Two of the Alaska Nike missile sites, Site Summit and Site Peter, were the only sites in the United States that held live practice firings. All other batteries traveled to Fort Bliss, Texas, and used the nearby White Sands Missile Range, the Army's testing and evaluation center for missiles and rockets, for their annual practice.

The first live Nike missile practice firing from Site Summit took place November 20, 1960. This was one year after the first practice firing in Alaska took place at Site Peter. After the first firing, General J.H. "Iron Mike" Michaelis, Commander of the U.S. Army Alaska, told the

spectators that the "live-fire exercises were invaluable training in firing from actual combat sites and at the same time demonstrating to the citizensof Alaska and the nation the power of this modern weapon." (Denfeld, p.16).

Annual firings from Site Summit continued during the months of November and December for four years, 1960-1963. As practice, the Anchorage batteries each fired two missiles from the site. Targets included computer generated points in space and miniature airplanes. The missiles travelled northeast towards Mount Whitherspoon. The Army always gave advance notice of firings in the Anchorage newspapers. Firings were visible from most areas of Anchorage.

In July 1964, the Army cancelled practice firings from Site Summit because population growth in the flight range area made the firings unsafe. The Anchorage battalion traveled to Fairbanks for annual practice at least until 1968. While live practice firings occurred at the Alaska sites, Nike missiles were never used in actual warfare.

SUMMARY

The changing political climate and rapidly developing defense technologies, especially with the development of intercontinental ballistic missiles, made the Nike missile bases obsolete. Nationwide, Nike batteries started phasing out in 1965. The U.S. Army intended to replace the Nike system with the SAM-D, later named the Patriot, a superior antiballistic missile system in the 1970s. In 1970 and 1971 the Fairbanks Nike installations were deactivated. The last sites in the country to close were in Alaska and Florida. In May 1979, Site Summit was placed on stand down status and deactivated two months later. The Army continued to guard the site until 1986.

Today, Site Summit remains as a physical representation of military strategy during the Cold War. Active for twenty years, Site Summit is a reminder of the United States Army's mission to protect its military bases and population centers.

9. Major Bibliographical References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.) _X_ See continuation sheet.

Previous documentation on file (NPS) _n/a_
___ preliminary determination of individual listing (36 CFR 67) has been requested.
___ previously listed in the National Register
___ previously determined eligible by the National Register
___ designated a National Historic Landmark
___ recorded by Historic American Buildings Survey # _____
___ recorded by Historic American Engineering Record # _____

Primary Location of Additional Data
_X_ State Historic Preservation Office
___ Other State agency
___ Federal agency
___ Local government
___ University
___ Other

Name of repository: _____

10. Geographical Data

Acreage of Property 244

UTM References (Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing		Zone	Easting	Northing
A	06	364750	6794150	E	06	363975	6794200
B	06	364900	6794000	D	06	362925	6793125
C	06	363430	6792800				

___ See continuation sheet.

Verbal Boundary Description (Describe the boundaries of the property.)

The boundary for Site Summit is shown on the accompanying map entitled "Site Summit Historic District Boundaries" and includes the Battery Control and Launch areas and the connecting road.

Boundary Justification (Explain why the boundaries were selected.)

The boundaries for Site Summit encompass the Battery Control area with radars, the Launch area, and the road connecting the two sites with the related magazines. This area includes the significant historic properties for the Nike-Hercules missile installation at Site Summit.

9. Major Bibliographical References (continued)

Army Corps of Engineers. Microfiche copy of Site Summit as-builts, 1959.

Army Corps of Engineers. Headquarters United States Army Alaska Air Defense Artillery Group. Information officer copy regarding 1967 Nike practice firing. 1966.

Atkinson, E.L. "Alaska Contractors Build Difficult Nike Sites," Excavating Engineer (March 1959): 14-16, 21.

Blunt, Richard. Served in the 43rd Artillery at Fort Richardson from 1973-74. Executive Officer Guided Missile Direct Support. Personal communication 1/24/95.

Carlson, Ted. Served in the Air Force during 1957-1959, stationed at the radio relay station. Personal communication 1/24/95.

Denfeld, D. Colt. Nike Missile Defenses in Alaska: 1958-1979. Anchorage: U.S. Army Corps of Engineers, January 1988.

Gunston, Bill. The Illustrated Encyclopedia of the World's Rockets and Missiles. New York: Crescent Books, 1979.

Halsey, Milton "Bud", Jr. Nike Site Manager at Golden Gate National Recreation Area, Fort Barry, Sausalito, CA 94965. Personal communication 4/26/95.

Schaffel, Kenneth. The Emerging Shield: The Air Force and the Evolution of Continental Air Defense 1945-1960. Washington, D.C. 1991.

Smith, E.D. "Missile Projects In Alaska," The Military Engineer (March-April 1960): 108-109.

Winkler, David and Lonnquest, John. Draft manuscript, To Defend and Deter: U.S. Missile Programs in the Cold War. U.S.A.F Headquarters, Illinois: 1995.

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11. Form Prepared By

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Property Owner

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(Complete this item at the request of the SHPO or FPO.)

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Photographic identification

1. Site Summit, AHRS Site No. ANC-789
   Anchorage, Alaska
   U.S. Army, unknown
   1958
   National Archives-Alaska Region, 654 W. 3rd Avenue,
   Anchorage, Alaska 99501
   Looking east at missile launch area under construction

2. Site Summit, AHRS Site No. ANC-789
   Anchorage, Alaska
   U.S. Army, unknown
   1960
   National Archives, Still Pictures Branch, #111-SC-592133, 8601 Adelphi Road, College Park, MD 20740
   Looking southeast at missile launch area; firing of missile

3. Site Summit, AHRS Site No. ANC-789
   Anchorage, Alaska
   Janet Clemens
   1994
   Department of Natural Resources, Division of Parks and Outdoor Recreation, Office of History and Archaeology, 3601 "C" Street, Suite 1278, Anchorage, Alaska 99503-5921
   Looking south at the launch area; guided missile and high explosive magazines are in the foreground

4. Site Summit, AHRS Site No. ANC-789
   Anchorage, Alaska
   Janet Clemens
   1994
   DNR, DPOR, Office of History and Archaeology, 3601 "C" Street, Suite 1278, Anchorage, Alaska 99503-5921
   Looking northwest at the back of the Launching Control Building with Electrical Substation B on the right

5. Site Summit, AHRS Site No. ANC-789
   Anchorage, Alaska
   Janet Clemens
   1994
   DNR, DPOR, Office of History and Archaeology, 3601 "C" Street, Suite 1278, Anchorage, Alaska 99503-5921
   Looking northwest at the Missile Warhead Magazine at the launch area

6. Site Summit, AHRS Site No. ANC-789
Anchorage, Alaska
Janet Clemens
1994
DNR, DPOR, Office of History and Archaeology, 3601 "C" Street, Suite 1278, Anchorage, Alaska 99503-5921
Looking east at the Battery Control Building and Electrical Substation C

7. Site Summit, AHRS Site No. ANC-789
Anchorage, Alaska
Janet Clemens
1994
DNR, DPOR, Office of History and Archaeology, 3601 "C" Street, Suite 1278, Anchorage, Alaska 99503-5921
Looking northwest at the Battery Control Building and the Target Ranging Radar

8. Site Summit, AHRS Site No. ANC-789
Anchorage, Alaska
Janet Clemens
1994
DNR, DPOR, Office of History and Archaeology, 3601 "C" Street, Suite 1278, Anchorage, Alaska 99503-5921
Looking northeast (from left to right) at the communications properties, the HIPAR foundation, the HIPAR Building and the Battery Control Building