# HISTORIC RESOURCES EVALUATION

# Nike Missile Site SF-31C San Leandro, California



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Historic Resources Evaluation Report Nike Base SF-31C

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## INTRODUCTION

This report evaluates the California Register of Historical Resources eligibility of five buildings at the former Nike Missile Site SF-31C. Located on a 1.43-acre parcel on Fairmont Ridge, San Leandro (APN 79-1-5-2), the project area is an in-holding within the East Bay Regional Park District's (EBRPD) Lake Chabot Regional Park. A site survey of the project area was completed on May 17, 2019 and historic archival research was conducted in May, 2019.

Site SF-31C was the Integrated Fire Control Area for Nike Missile Site SF-31, constructed in 1955, which held both Nike-Ajax and Nike-Hercules surface-to-air missiles before being decommissioned in 1974. Hosting the command and control functions of the base, SF-31C was one of three functional areas of the Lake Chabot Nike Missile Base which included the Launch area (SF-31L) and the Administrative area (SF-31A). Areas SF-31L and SF-31A are now part of the Lake Chabot Regional Park. The Nike system was the world's first surface-to-air missile system and was intended to defend the United States against nuclear-armed bombers. The San Francisco Bay Area, then home to many military bases and critical defense infrastructure, was ringed by 12 Nike installations by the late 1950s.

The following historic evaluation was conducted in accordance with the requirements of the California Environmental Quality Act (CEQA). For purposes of CEQA, a significant historic resource is a resource listed in, or considered eligible for listing in, the California Register of Historical Resources. All five buildings at Nike Missile Site SF-31C were evaluated under the criteria of the California Register. The buildings have not previously been evaluated under local, state, or federal historic designation criteria.

The buildings at SF-31C include the Quarters Building, High Power Acquisition Radar [HIPAR] building, Generator Building, Guard Shack, and Corridor Building (with Radar Storage Shed addition). The Quarters Building and Radar Storage Shed addition to the Corridor Building are proposed for demolition. This report concludes that none of the buildings at SF-31C are individually eligible to the California Register.

However, three of the buildings – the HIPAR Building, Generator Building, Corridor Building, and Guard Shack – are contributing resources to a California Register-eligible Lake Chabot Nike Missile Base Historic District, which includes buildings and features at areas SF-31L and SF-31A, because they are significant under California Register Criteria 1 as defined in the CEQA Guidelines at §15064.5. The Quarters Building and Radar Storage Shed addition, however, are not contributing resources and are not eligible to the California Register.

As one of the three or four best preserved of the original 12 Nike installations in the Bay Area, the Lake Chabot Nike Base retains most of the important features of the original Nike Base, a historically significant technological advance in the history of United States military defenses. Its period of significance is 1955 to 1974.



Figure 1: Project Location

OpenStreetMap

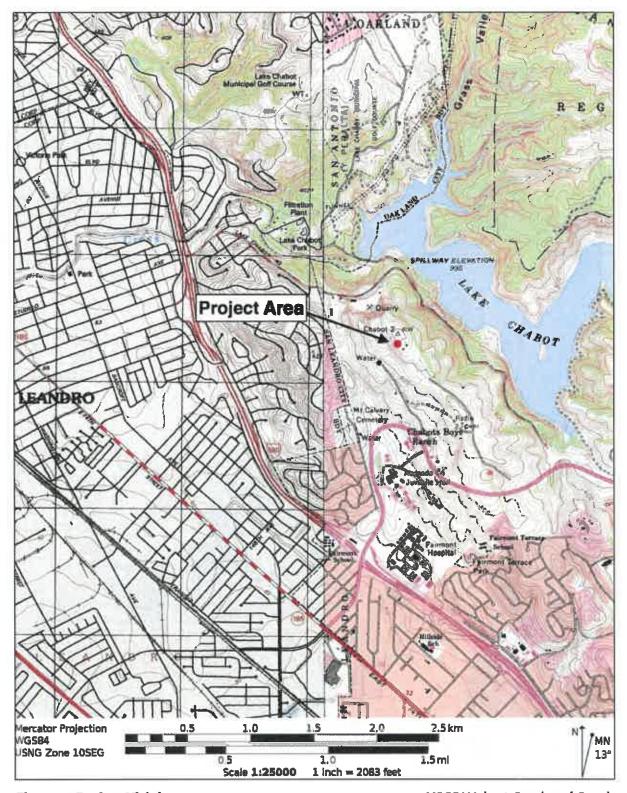


Figure 2: Project Vicinity

USGS Walnut Creek 7.5' Quad

#### PROPERTY DESCRIPTION

## Setting

The project area was formerly the Integrated Fire Control area (hereafter 'Control area') of Nike base SF-31C at Lake Chabot. Twelve Nike bases formerly ringed the San Francisco Bay Area, and each had three functional areas: an Administrative area, a Launcher area which held the missiles themselves, and a Control area, which held the radar and communications equipment required to identify and track targets and guide missiles to intercept them. At SF-31, the Launcher area (SF-31L) and the Administrative area (SF-31A) were on the east side of Lake Chabot, about 1.1 miles southeast of the project area. The project area is owned by Alameda County, while SF-31L and SF-31A are owned by the East Bay Regional Parks District (EBRPD).

The Control area for Nike SF-31 is located at on a 1.43-acre parcel at the north end of Fairmont Ridge, at approximately 800 feet elevation. Its street address is 2892 Fairmont Drive, San Leandro, but it can only be reached by an EBRPD service road. SF-31C consists of five buildings arranged on a north/south axis. From south to north, they are the Guard Station, Quarters Building, the Generator Building, Corridor Building (with attached Radar Storage Shed) and the HIPAR building. The buildings are located on terraces that slope downward from north to south. A perimeter chain link fence surrounds the entire Control area. To the east of the property, eucalyptus wind rows mark the crest of Fairmont Ridge, while the rest of the vicinity is steep, hilly, and covered with open grassy fields. The views to the west from the site include the cities of San Leandro and Oakland, while Lake Chabot is visible to the east.

In addition to the five buildings, the Control area has several circular concrete tracking radar pads and a water storage tank (modern) set on concrete piers. Various concrete pads and asphalt covered parking areas are adjacent to the buildings. Concrete stairs and the access road join the three levels of the terraced site. The Quarters Buildings and the Generator Building are on the south, with the Corridor Building at mid-level then the HIPAR Building and Antenna at the site's highest elevation. The Guard Station is at the lowest elevation at the bottom of the hill adjacent to the access road leading up to the main building complex. All the buildings on the site are constructed of concrete block, with the exception of two additions: a Radar Storage Shed built of corrugated metal is attached to the Corridor Building, while the Quarters Building has a wood-frame addition on its west side.





Figure 3: Views southwest (L) and northwest (R) from SF-31C.

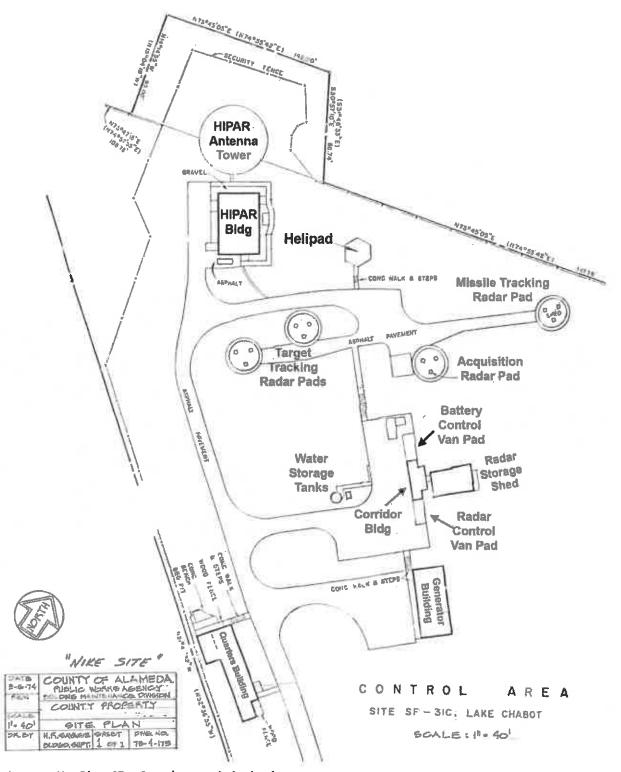


Figure 4: Site Plan, SF-31C, at decommissioning in 1974

#### **Guard Station**

From Fairmont Avenue, the access road leads approximately one mile up to the entrance to SF-31C. Here, one would pass a small Guard Station on the right-hand side of the road adjacent to a locked gate leading into the restricted-access facility. The guard station is rectangular in plan, constructed of concrete block, and measures 6 by 8 feet. It sits on a flat concrete pad. It has a flat roof with wide eaves, an opening for a single hinged door on the west and a single, wood-sash, double-hung window on each of the three facades. The original door and window glass are missing, and the interior is now very deteriorated. The access road continues up a steep hill to the north to the main building complex set on the top of the ridge.



Figure 5: Guard station, looking east.

## The Quarters Building (Building D)

Ascending the hill from the Guard Station, the Quarters Building (also known as Building D) is at the south end of the main building complex on the west side of the access road. The Quarters Building sits on the edge of a steep hill. Made of concrete block, the Quarters Building has an L-shaped plan (with a recess at the southeast corner) and a flat roof (with shallow eaves) covered with tar and gravel. The building is 64 feet long and 18 feet wide on the north, narrowing to 12 feet on the south (1,320 square feet). The building has wood sash, double-hung windows — now covered over with plywood — on the east and west façades. Concrete steps lead down from the access road to the main building entrance on the north. A concrete bench and a barbeque area are adjacent to the north façade. On the west side of the building, a wood-framed addition projects out over the

hill slope. This addition was built between 1965 and 1974 (compare Figure 4 above with Figure 18 below).

Inside, the Quarters Building is divided into two major spaces arranged on a north/south axis. In the main space on the south, the roof has collapsed resulting in extensive water damage, mold and dry rot deterioration to the interior. The interior originally included a kitchen, a living area and a sleeping area for the approximately 10 military personnel posted to area SF-31C.

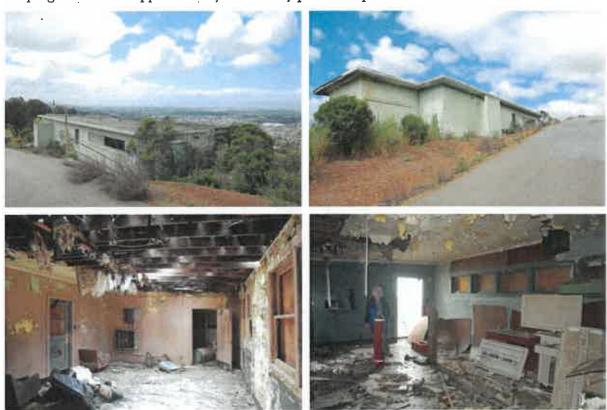


Figure 6: Quarters Building. Upper left: north and east façades, looking south. Upper right: south and east façades, looking north. Lower left: Interior of southern room. Lower right: interior of northern room.

## The Generator Building (Building C)

The Generator Building is directly east of the Quarters Building, across the access road and an asphalt parking area. The rectangular plan (25 by 56 feet), concrete block Generator Building has a flat roof with shallow eaves. A variety of ventilating equipment is on the roof. The main west façade opens out to an asphalt paved parking area on the west. Viewed from the west façade, the building has two sections: a taller section on the right (south), which held the generator machinery, and a lower and somewhat narrower section on the left (north). The taller south section has three garage openings now covered with plywood. A pair of ventilation grates is above each opening. The lower section on the north also has three openings for doors now covered with plywood. The north façade has a single hinged door and an adjacent window. Inside the main generator floor occupies most of the interior (1,400 square feet). This open free space has exposed aluminum roof trusses supporting an aluminum plate roof. An adjacent room on the north appears to be a shop

area and for storing parts. No generator equipment remains inside the building, which has extensive mold damage and is used to store miscellaneous items.



Figure 7: Generator Building. Upper: west façade. Lower left: interior of generator room on south side of building. Lower right: north and east façade.

## **Corridor Building & Radar Storage Shed (Building B)**

A concrete staircase leads up from the Generator Building to the Corridor Building (and the later addition Radar Storage Shed to the east). The Corridor Building (also called the electronic shop building) was used to connect mobile communications and computer vans to one another and to the other equipment at the Control area. The project proposes to retain the Corridor Building but the Radar Storage Shed will be removed.

The Corridor Building is on a flat site with adjacent concrete pads: the Battery Control Van Pad on the north and the Radar Control Van Pad to the south. The T-shaped plan Corridor Building is constructed of concrete block. The overall dimensions are 20 by 5 feet with a central three-footwide extension at the center of the east façade forming the leg of the T. (The Radar Storage Shed, a later addition, is attached to the Corridor Building via this extension). The Corridor Building has hinged doors on each side of the main west façade. Inside, it has a single room with wood paneling, vinyl floor covering and acoustical tile ceiling with fluorescent lighting. Obsolete computer and radio equipment are stored in the room.









Figure 8: Corridor Building and Radar Storage Shed. Upper left: north and east façades, looking south. Upper right: South façade. Lower left: north façade. Lower right: interior, with electronic equipment.

The rectangular (20 by 33 feet) Radar Storage Shed is a later addition to the Corridor Building. The addition has a segmental arch roof; the walls and the roof are covered with bolted corrugated metal panels. The Radar Storage Shed had windows on the north and south facades (now covered over). The interior of the addition is used for storage and was not accessible.

#### **Radar Pads**

A second concrete staircase leads to the upper terrace, where four concrete radar pads and the HIPAR building are located. Nike Control areas had four small rotating radar units, which were mounted on tripods fixed to concrete pads. These radars provided target tracking, target acquisition, and missile tracking capabilities. The four radar pads are oriented in an east-west line and measure approximately 15 feet in diameter.



Figure 9: Target Tracking Radar Pad.

# High Power Acquisition Radar (HIPAR) Building (Building A) and HIPAR Antenna Tower

North of the radar pads stand the HIPAR Building and adjacent antennas, which will not be affected by the project. A chain link fence surrounds this concrete block building which has a flat tar and gravel roof and metal doors on each façade. The building measures 34 by 50 feet (1,700 square feet) and is rectangular in plan. The interior was not accessible. The modern radar dishes on the building and the Antenna Tower are part of the Alameda County Sheriff's Office communications and Emergency Response System, and are not associated with the building's original use as part of the Nike Missile Base. It was unclear whether any of the existing antenna masts were once part of the HIPAR radome.



Figure 10: HIPAR Building, looking north.



Figure 11: HIPAR Building, looking southwest.

## HISTORIC CONTEXT

## **Pre-Nike Base History**

The project area is located on Fairmont Ridge, west of Lake Chabot. The buildings in the project area were constructed as part of the Nike missile program in the mid-1950s (Nike base SF-31). Prior to that time, the project area was pasture land adjacent to watershed lands owned by Contra Costa Water Company, the People's Water Company, and later the East Bay Municipal Utility District (EBMUD). Other parts of Nike base SF-31 were located next to Lake Chabot on East Bay Regional Park District (EBRPD) land.

In 1878 the project area was part of a 317-acre parcel belonging to J.M. Schaffer and Co. By 1900, that same parcel, minus a small portion in the northeast for a quarry and now 304 acres, belonged to E. Leveling (Nusbaumer and Boardman 1900); E. Leveling is also listed as the owner in 1910 (Haviland 1910). Eli Leveling was a fruit farmer and the son of John Leveling, "a pioneer nurseryman of the Pacific Coast" (Munro-Fraser 1883: 35), who moved to California from Iowa with his family in 1854 and settled on the north bank of San Lorenzo Creek (Yeager 2013). Eli Leveling died in 1926 in San Lorenzo, leaving his estate to his niece, Elva King (Berkeley Daily Gazette 1928).

In 1876, Anthony Chabot finished construction of a dam on San Leandro Creek, which created Lake Chabot and provided water to Oakland and San Leandro. Chabot planted thousands of trees around the lake and the treeline that runs along Fairmont Ridge, just east of the project area, may date to that time (Burgess 1992: 125-134). By the 1920s the watershed lands around Lake Chabot, the project area and throughout the East Bay were owned by the East Bay Water Company. However, at the same time, the East Bay Municipal Utility District (EBMUD) was created to shift the East Bay's water supply from local reservoirs to water from the Sierras by building a new system to bring in water from the Mokelumne River. This new source of water from the Sierras made local catchment basins and reservoirs unnecessary and when EBMUD acquired the East Bay Water Company and its vast amount of watershed lands in 1928, EBMUD made 10,000 acres of watershed land available. In 1934, East Bay voters approved the creation of the East Bay Regional Park District (EBRPD) to acquire this watershed land and maintain and manage it as a park system (Stein 1984: 3-15). The park district acquired 959 acres of land from EBMUD in Grass Valley, which bordered Lake Chabot, and opened it as Anthony Chabot Regional Park in 1952 (Stein 1984: 38). Lake Chabot itself was leased to EBRPD by EBMUD in 1964, and was opened to the public for boating and fishing on the lake and hiking and camping in the surrounding hills (Stein 1984: 62-3). The project area, just west of the Lake Chabot Regional Park boundary, has been owned by Alameda County since at least 1954.

## The Nike Missile Program

The Nike program, developed by the US Army, was the first operational surface-to-air missile system. It was initially envisioned in the final months of the Second World War, with research continued after the end of the war. After the Soviet Union developed long range bombers and nuclear capabilities, the Nike missile systems were implemented as a last-ditch defense of major urban areas and other key sites. The first Nike batteries became operational in 1954, and the program rapidly expanded to cover the entire United States and some allied countries. The San Francisco Bay Area, then home to many military bases and critical defense infrastructure, was

ringed by 12 Nike installations by the late 1950s (Federation of American Scientists 1999; Military Standard 2019).

As noted above, each Nike base consisted of three areas: an Administrative area, a Control area, and the Launcher area (Morgan and Berhow 2010:10). For technical reasons, the Control area had to be separated from the Launcher area by 0.5-3.5 miles, though the Launcher and Administrative areas were usually co-located. As a result, Nike bases were usually situated on two separate parcels of land. The typical Launcher area contained four above-ground missile launchers, two or three underground magazines which stored 24 to 32 missiles, a missile assembly and testing building, storage and repair building, and a ready room for on-duty personnel. The Control area contained radar and computer systems that tracked hostile aircraft and guided the missiles to their targets, and were often constructed on high ground. Administrative areas contained the mess hall, barracks, administrative offices, and recreational facilities. All of these structures were built to standard designs developed by the Army Corps of Engineers and were built of cinderblock with flat roofs (Morgan and Bercow 2010:20). Each of the base areas was surrounded by a security fence.

The Nike base system initially used Nike Ajax missiles, two-stage guided missiles powered by a motor using liquid fuel. The Ajax missiles could reach speeds of over 1,600 mph and altitudes of up to 70,000 feet. However, their range was only 25 miles and soon after the Nike base system was initiated, development began on an improved missile, the Nike Hercules. The Nike Hercules missile had a range of about 90 miles, could reach speeds above 2,700 mph and altitudes up to 150,000 feet, and could carry a nuclear warhead (Military Standard 2019).

The development of intercontinental ballistic missiles after 1965 made the Nike system less valuable for continental defense, and many batteries were decommissioned in the late 1960s. After the 1972 Strategic Arms Limitation Treaty with the Soviet Union, the Nike program was largely shut down, with most sites decommissioned by 1974.

## The Nike Program in the San Francisco Bay Area

During the late 1950s, the US Army Corps of Engineers acquired land for 12 Nike bases around San Francisco Bay. These bases were commanded from the 6th Region, US Army Air Defense Command at Fort Baker in San Francisco.

- SF-08: San Pablo Ridge
- SF-09: San Pablo Ridge/Berkeley
- SF-25: Rocky Ridge/Bollinger Canyon
- SF-31: Lake Chabot/Castro Valley
- SF-37: Coyote Hills/Newark
- SF-51: Milagra/Pacifica
- SF-59: Fort Funston/Mt. San Bruno
- SF-87: Fort Cronkite/Sausalito
- SF-88: Fort Barry/Sausalito
- SF-89: Fort Winfield Scott
- SF-91: Angel Island
- SF-93: San Rafael

All of these sites except for SF-31, SF-51, and SF-88 were deactivated by 1971. The remaining three were deactivated in 1974 (Lonnquest and Winkler 1996:323). The bases today are in varying condition: three are in good condition, four in fair condition, and five are mostly or totally demolished. SF-88 at Fort Barry is now part of the Golden Gate National Recreation Area and is the only Nike site in the United States that is open to the public as a museum. See 'Integrity' section below for a fuller discussion of the condition of the other San Francisco area Nike bases.

## Nike Base Integrated Fire Control Areas

#### General Layout

The project area is home to the Control area of Nike Base SF-31, and hosted the command and control functions of the base. (They are also known as Integrated Fire Control areas or Radar Course Directing Centrals in Army technical documents.). The Control area generated and broadcasted the radar signals used to detect targets, interpreted signal data, and controlled targeting, firing, and detonation of missiles. Control areas were laid out using one of several standardized designs that could be adapted to the topography and size of the available property. The two main types were the "unconsolidated" layout, where each base function was housed in a separate building, and the "consolidated" layout, which saw most of the area's equipment placed in two buildings. SF-31C had an "unconsolidated" layout (Nike Historical Society 2019).

The main structures at an unconsolidated layout Control area, such as the project area, were as follows:

- HIPAR Building
- Radar Arrays (HIPAR, LOPAR, Tracking Radars)
- Electronic Shop Building
- Generator Building
- Quarters Building
- Guard Shack

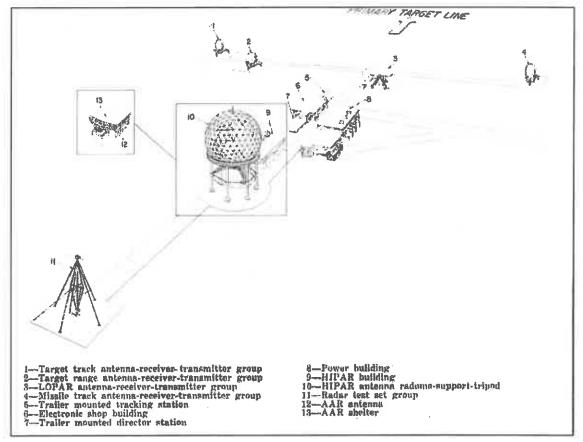
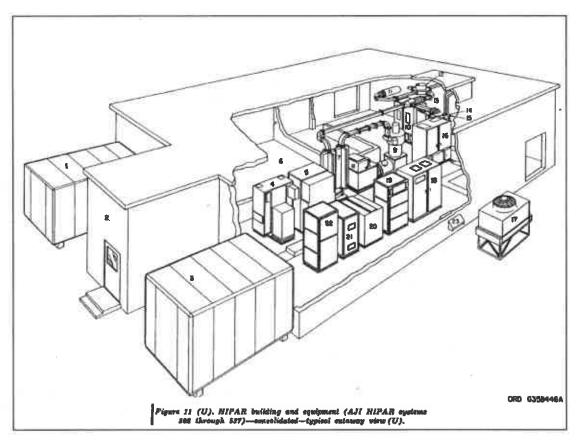


Figure 12: Schematic of Nike Integrated Fire Control Area, showing major equipment (Nike Historical Society 2019)

## **HIPAR Building**

The High Power Acquisition Radar (HIPAR) system was installed at Nike installations that were upgraded for use with Hercules missiles after 1958. HIPAR allowed detection of missiles or aircraft at higher altitude than the previous LOPAR system. It was effective against small, supersonic targets and could defend against tactical ballistic missiles (Lonnquest and Winkler 1996:180).

The HIPAR building held equipment to generate and filter radar signals, as well as receiving equipment to process signals that had bounced off potential targets. A storage space for HIPAR parts, tools and test equipment, as well as a work space for equipment repair, was also provided. The HIPAR antenna itself was located outside of, but close to, the HIPAR building. The HIPAR array had a dome-shaped cover known as a 'radome' which covered the radar and antennas, mounted on a tripod support structure which could be as much as 50 feet high (Military Standard 2019).



- 1—FUIF room
  2—High voltage power supply
  3—High voltage pulse generator
  4—RF harmonic filter
  5—Pulse transformer
  6—Wavegulde sections
  7—Klystron amplifier
  8—Dummy load
  9—Moving target indicator group
  10—Waveguide switch
  11—Duplexer assembly
- 11.1—Airline support assembly
  12—Noise coupler and thermal noise generator
  13—Receiver group
  14—Pumping unit
  15—Liquid cooler
  16—Control-oscillator group
  17—Power control-indicator
  18—Induction voltage regulator
  19—Step-up power transformer
  20—Simulator distribution box

Figure 13: HIPAR Building Layout. Note that in an unconsolidated layout such as SF-31C, the FUIF equipment and trailers are installed in the electronic shop building instead of the HIPAR building.

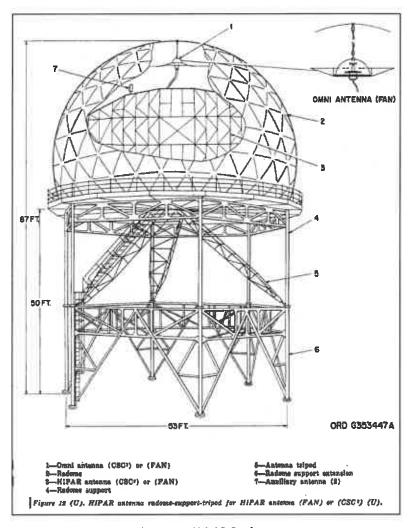


Figure 14: HIPAR Radome

#### **LOPAR Array and Tracking Radars**

Low-Power Acquisition Radar (LOPAR) consisted of a rotating directional antenna that contained a receiver and transmitter array, mounted on a circular concrete pad. LOPAR worked similarly to HIPAR, but had a shorter range.

After a target was acquired using LOPAR and HIPAR arrays, a Target Tracking Radar (TTR) would follow the target and provide data to the Target Ranging Radar (TRR) displays. After launch of an interceptor missile, a Missile Tracking Radar (MTR) system would monitor the missile's course and transmit guidance commands (Nike Historical Society 2019). The three tracking and ranging radar systems were also mounted on concrete pads.

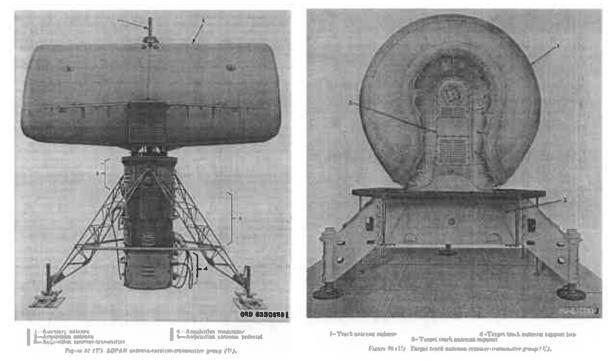


Figure 15: LOPAR (left) and Target Tracking (right) antenna-receiver-transmitter groups

## Electronic Shop Building, AKA 'Corridor Building'

This narrow building served as a bridge between two portable trailers containing the radar control equipment, with one trailer being attached on either end to form a corridor (another name for the building was the "Corridor Building". It was used in Control areas with unconsolidated layouts; in posts with consolidated layouts this equipment was located inside the HIPAR building.

Trailers were used because the Nike system was originally designed as a mobile artillery unit before it was adapted for fixed air defense. The battery control trailer (or "trailer mounted director station") provided the battery control officer with the information he needed to direct the battery. Inside the trailer were the acquisition radar displays, early warning plotting board, telephone switchboard, stations for the radar and computer operators, and computers that controlled the acquisition radar system housed in the HIPAR building. The radar control trailer (or "trailer mounted tracking station") held equipment for operating the target acquisition and missile tracking systems, using signals received from the HIPAR building (Military Standard 2019).

#### **Generator Building**

The Generator Building held generators and power converters. Most Nike bases ran on normal 60 hertz, 120 volt power, but were furnished with diesel generators in case of emergency. The transformers were used on a continuous basis to convert 60 hertz, 120 volt commercial electricity to the 400 hertz power used by the Nike radars (the generators also produced power at 400hz).

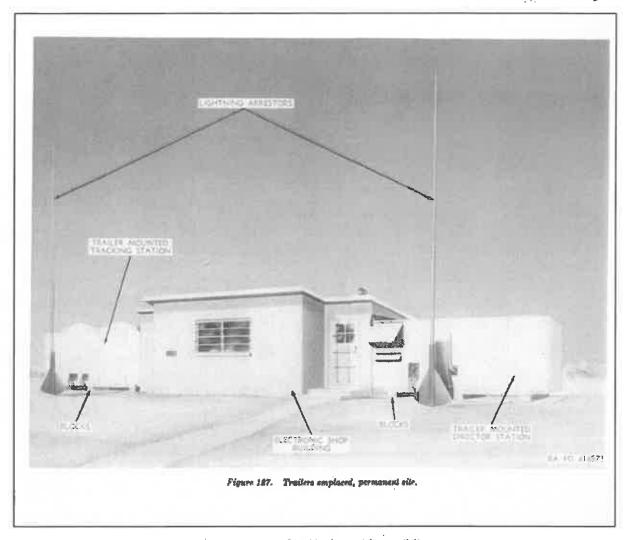


Figure 16: View of Typical Corridor Building

## **Quarters Building**

Nike Control areas needed a crew of 10 or more to operate, and their location – usually a mile or more from the main base – required an area for sleeping, eating, and other necessities. Quarters Buildings were usually long and narrow and of cinder-block construction.

#### **Guard Shack**

The Guard Shack was positioned at the entrance to a Control area and was a small rectangular booth with a front door and side windows allowing the guard to speak to people leaving and entering the facility (Military Standard 2019).



Figure 17: Nike Base SF-31, with administrative area (SF-31A) in foreground, launcher area (SF-31L) in middle ground, and integrated fire control area (SF-31C, the project area) behind the treeline on the ridge in background.

## SF-31 at Lake Chabot, 1955-1974

The US Army constructed Nike base SF-31 near Lake Chabot in 1955, leasing the land from Alameda County and EBMUD. The Launcher area (SF-31L) was located approximately 270 yards east of the south end of Lake Chabot and consisted of eight launchers and two magazines that held 20 Nike Ajax missiles, along with a missile assembly building, missile fueling station, generator building, and dog kennel (Sebby 2016). All of the buildings still stand on site, along with a number of buildings built after decommissioning of the Nike Base. The magazine elevator doors are still visible in aerial photographs, though it is unknown whether any of the underground facilities survive.

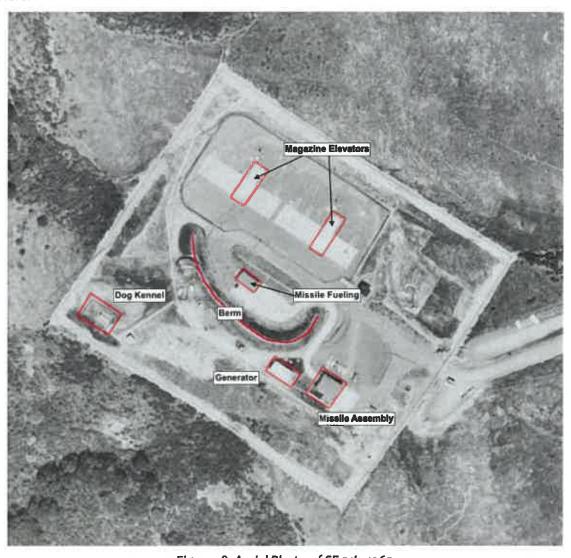


Figure 18: Aerial Photo of SF-31L, 1965

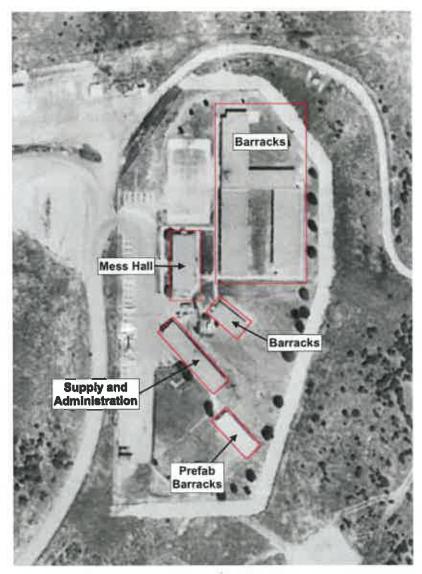


Figure 19: Aerial Photo of SF-31A, 1965

The Administrative area (SF-31A) was about 1000 feet east of the Launcher area and consisted of one large and two small barracks buildings, a mess hall, and a combined supply and administration building. (Sebby 2016). This area is currently used by the East Bay Regional Park public safety division and appears to be largely intact.

The base was initially staffed by Company A of the 441st Anti-Aircraft Artillery Battalion (1955-1958), followed by Company A, 4th Battalion, 67th Air Defense Artillery Regiment (1958-1963) and Company B, 1st Battalion, 250th Air Defense Artillery Regiment (1963-1974). Commanders of SF-31 included Captain John Ringer (1955), Captain Thomas B. Dodgen (1957, 1958), and Major James R. Vanderveen (1974) (Oakland Tribuns 1958, 1974; Strobel 1955).

The project area, located on Fairmont Ridge above Lake Chabot, was about 1.1 miles west of SF-31L and SF-31A (Sebby 2016). Its location gave it "360-degree line of site radar coverage by the Site's tracking and search radar system" (Sebby 2016). The Control area was located on land leased from Alameda County.

The area layout at SF-31C was the "unconsolidated" type and was laid out on a roughly north-south axis, following the line of Fairmont Ridge. From south to north, the facilities included the Guard Shack, Quarters, Generator Building, Electronic Shop Building, LOPAR and target tracking arrays, HIPAR building, and HIPAR radome.

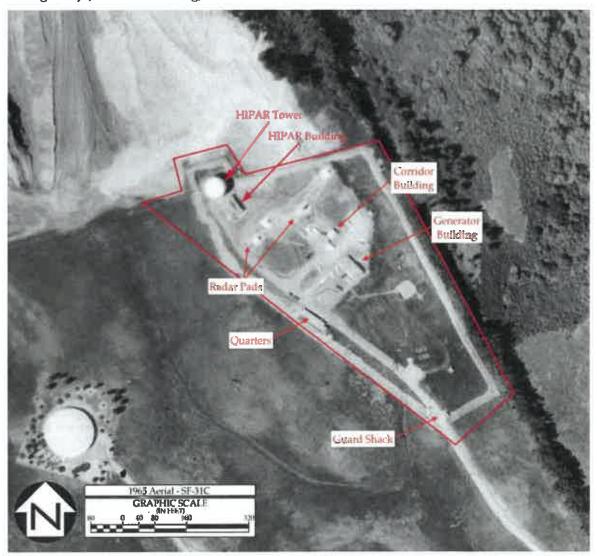


Figure 20: Aerial Photo of SF-31C circa 1965.

<sup>&</sup>lt;sup>1</sup> Fairmont Ridge runs approximately 20 degrees west of north.

In the late 1950s and early 1960s, SF-31 underwent modifications to accommodate the new Nike Hercules missiles. The magazines in the Launcher area were modified to hold 12 Nike Hercules missiles and new facilities were constructed at SF-31L including missile and warhead assembly, crew readiness, and security buildings (Sebby 2016). The Army installed a High Power Acquisition Radar (HIPAR) system in the Control area to guide the Hercules missiles, acquiring an additional 17.5 acres from the San Leandro Rock Company for this expansion (Sebby 2016). Andel, Inc. of Castro Valley won a contract to construct new concrete radar pads in 1961, presumably as part of the Hercules retrofit (Oakland Tribune 1961).

Life on Nike bases was sometimes described as lonely, since the bases, although often defending urban areas, were in sparsely settled areas like that around Lake Chabot. Because each part of the base had to be staffed 24 hours a day, the soldiers manning SF-31C slept and ate at the Control area in the quarters building. Most of the soldiers assigned to Nike bases were teenage draftees, with a small number of older, trained technicians. The small percentage of married men stationed at the bases usually had local homes and spent 3-4 nights a week there (Craib 1955).

The bases had some entertainment facilities such as a day room with television sets, ping-pong and pool tables and athletic courts (Craib 1955, Oakland Tribune 1956a). The Red Cross had program for volunteers to visit the East Bay Nike bases regularly to serve refreshments and help the soldiers feel like part of the community (Oakland Tribune 1956b). Soldiers from SF-31 at Lake Chabot participated in Castro Valley parades (Oakland Tribune 1959) and helped fight local fires. When EBMUD asked how they could thank them for their help, the one of the men replied that they just wanted to be allowed to fish in the lake (Oakland Tribune 1958). The project area garnered some attention in local newspapers in 1955, when soldiers at the base adopted a 10-year-old Castro Valley boy, Richard Briggs, who began coming to the base every day during construction. Soon he was guarding the base with a BB gun and doing KP duty, with permission from the base commander, Capt. John Ringer (Strobel 1955).

## Decommissioning

At some point in the late 1960s, EBMUD sold part of the land the Nike base SF-31 was located on (most like likely SF-31L and SF-31A, on the other side of Lake Chabot from SF-31C) to the South County Community College District, who continued to lease the land to the US Army (Oakland Tribune 1970, 1975). These parts of the base are currently used as East Bay Regional Park Police headquarters. In 1974, the Army deactivated SF-31 and returned control of the leased site to the property owners (Sebby 2016). The project area was returned to Alameda County's control at this time. A closing ceremony was held at the project site and attended by Lt. Gen. Raymond L. Shoemaker, commander of the US Army Air Defense, and other dignitaries (Oakland Tribune 1974). Since then, the former fire control facilities within the project area have been periodically used by the sheriff, by HAM radio operators, or stood vacant.

## SIGNIFICANCE EVALUATION

#### Framework for Evaluation

Under CEQA, local agencies must consider whether projects will cause a substantial adverse change in the significance of a historical resource, which is considered to be a significant effect on the environment. A "historical resource" is a resource determined eligible for the National Register of Historic Places (NRHP), the California Register of Historic Resources (CRHR), or local registers by a lead agency (14 Code of 'California Regulations [CCR] §15064.5), while a "substantial adverse change" can include physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings" that impairs the significance of an historical resource in such a way as to impair its eligibility for Federal, State, or local registers.

## The California Register of Historical Resources

In 1992, Assembly Bill 2881 added Section 21084.1 to the Public Resources Code (i.e. the CEQA statute), which provided more specific guidelines for identifying historic resources during the CEQA process:

A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. For purposes of this section, an historical resource is a resource listed in, or determined eligible for listing in, the California Register of Historical Resources.

Consequently, under §21084.1, an historic resource eligible for the California Register would by definition be an historic resource for purposes of CEQA compliance. The Final Regulations for nominating resources to the California Register were published in January, 1998.

Under the regulations, a number of historic resources are automatically eligible for the California Register if they have been listed in and determined eligible for the National Register of Historic Places or the California Historic Landmarks program (landmarks 770 or higher). Historic resources included in local inventories or designated under local ordinances can also be presumed eligible if they meet certain criteria. The Lake Chabot Nike Missile Base had not previously been evaluated under any local, state or national historic resource criteria.

In order for a resource to be eligible for the California Register, it must meet three criteria: 1) be eligible under one of the four criteria of significance, 2) retain historic integrity and 3) be fifty years old or older (except in rare case where the resource meets a higher level or "exceptional" level of significance).

## **Integrity Analysis**

#### Lake Chabot Nike Base and SF-31C

The California Register regulations define "integrity" as "the authenticity of a property's physical identity, evidenced by the survival of characteristics that existed during the property's period of significance." That is, it must retain enough of its historic character or appearance to be recognizable as an historical resource. The "period of significance" needs to date from fifty years ago or more. California Register regulations specify that integrity is a quality that applies to historic resources in seven ways: location, design, setting, materials, workmanship, feeling and association (see attached for definitions of aspects of historic integrity). A property must retain most of these qualities to possess integrity.

The Lake Chabot Nike Missile Base retains a high level of historic integrity, especially compared to the seven Bay Area Nike Missile Bases where at least some of the original features are still extant. The historic integrity of the base's Control area (SF-31C) is especially good compared to other surviving Nike Missile Bases. The original setting and location of the buildings, road and site (terracing, radar platforms, vegetation, and fence lines) have not been altered in area SF-31C. The overall integrity of design and materials of four of the five simple concrete block buildings, and of the metal addition to the Corridor Building, is excellent. However, the Quarters Building lacks integrity of materials and design due to its collapsed roof and extensive interior damage, though the concrete block walls however appear to be structurally sound.

The buildings at the Administrative Area (SF-31A) and Launch Area (SF-31L) were not visited for this report. However, review of recent aerial photographs shows that both areas have very good integrity, in that all of the buildings present in 1965 are still standing. Few Bay Area Nike bases retain any launch area features, and only three others retain all base three components in a good state of preservation.

The overall integrity of feeling and association of the Lake Chabot Nike Missile Base is high. The Control Area, in particular, is able to evoke the feeling of visiting the base during its period of significance. In conclusion, the Lake Chabot Nike Missile Base retains integrity of location, design, setting, materials, feeling and association. (The integrity of "workmanship" is not relevant to assessing this particular historic property).

#### San Francisco Bay Area Nike Bases

There were 12 San Francisco Bay Area Nike missile sites. Below we review the condition of the Nike sites in the region and their components (C= Control Area; L= Launcher Area; A= Administrative Area). The information below is based on Morgan and Berhow (1995), Wikipedia (2019), the Nike Historical Society (2019), and acme.com (2019), along with review of aerial photographs.

Taken as a whole, SF-31 appears to be among one of the best-preserved ensembles. All of the Launcher area buildings appear to be intact, the Control area has all of its original buildings (despite their poor interior condition), and the Administrative area's original buildings remain in use. SF-31 is in the best-preserved group; after SF-88 at Fort Barry it may be the best-preserved Bay Area Nike site.

## Good to Excellent Condition, Retain Integrity

Four of the 12 other Bay Area Nike sites are well preserved and clearly have enough integrity to convey their significance.

#### SF-88: Fort Barry/Sausalito

- L, A: Intact and restored to operational status. Currently functions as a Nike museum within Golden Gate National Recreation Area (GGNRA)
- C: Generator, Corridor, HIPAR, and quarters buildings present, in poor condition

#### SF-31: Lake Chabot

- L Intact, with many later additions. used as corporation yard for EBRPD
- A Intact, used as EBRPD public safety headquarters
- C All original buildings present, though some in poor condition

#### SF-25: Rocky Ridge/Bollinger Canyon

- L: Redeveloped as Tracor Aerospace facility, largely intact
- A: EBRPD Park Offices, buildings appear intact
- C: HIPAR and corridor building intact, others demolished

#### SF-59: Fort Funston/Mt. San Bruno

- L-partial, parking lot for GGNRA
- A Intact, used as Environmental Science and Air Monitoring Center for GGNRA
- C Quarters, Generator building, HIPAR building intact

### Fair Condition, Retain Partial Integrity

Three sites retain fair integrity, of these, only SF-37 has Control area buildings intact.

#### SF-37: Coyote Hills/Newark

- L Filled and graded
- A Buildings used as Regional Park visitor's center
- C -Only HIPAR and Generator building present; used as EBRPD and Alameda County Sheriff's Office

#### SF-91: Angel Island

- L, A Intact, though buildings are closed. Site is part of Angel Island State Park
- C Only pads survive

#### SF-93: San Rafael

- L A few buildings on the campus of the Marin County Waste Water treatment facility are from the Nike Base
- A Intact, used as a youth guidance center
- C Buildings demolished; tower bases and pads only are present

#### Poor Condition, Lacking Integrity

Five Bay Area Nike sites lack integrity and have been mostly or entirely demolished.

## SF-08: San Pablo Ridge

#### SF-09: San Pablo Ridge/Berkeley

These two bases, now in Wildcat Canyon Regional Park, shared a Control and Launcher Area and have been entirely demolished

## Historic Resources Evaluation Report Nike Base SF-31C

## SF-51: Milagra/Pacifica

L, A - Only building pads survive

C - Several buildings and pads present, but lack roofs and appear badly deteriorated

#### SF-87: Fort Cronkite/Sausalito

L - Redeveloped as GGNRA California marine mammal center, original buildings demolished

A - A few buildings left on periphery of parking lot in a corporation yard setting

C - Concrete pads present, no buildings

## SF-89: Fort Winfield Scott/Mt. Sutro

L - Pads visible, no buildings remain

A - Administration buildings remain in area

C - No buildings remain

## **Significance Evaluation**

This section evaluates the buildings in the project area under the four criteria of the California Register.

Criterion 1: The resource is associated with events or patterns of events that have made a significant contribution to the broad patterns of local and regional history.

Site SF-31C was the Integrated Fire Control Area for Nike Missile Site SF-31, constructed in 1955, which held both Nike-Ajax and Nike-Hercules surface-to-air missiles before being decommissioned in 1974. Hosting the command and control functions of the base, SF-31C was one of three functional areas of the Nike Missile Base which included the Launch Area (31L) and the Administrative Area (31A). The Nike system was the world's first surface-to-air missile system and was intended to defend the United States against nuclear-armed bombers. The San Francisco Bay Area, then home to many military bases and critical defense infrastructure, was ringed by 12 Nike installations by the late 1950s.

The conclusion of this report is that four of the five buildings at SF-31C are contributing resources to a California Register-eligible Lake Chabot Nike Missile Base Historic District (which includes buildings and features at areas SF-31L and SF-31A) because they are significant under California Register Criteria 1 as defined in CEQA §15064.5. The contributing buildings are the Guard Shack, Generator Building, Corridor Building, and HIPAR Building. The Quarters Building and the Radar Storage Shed addition to the Corridor Building are not contributing resources to the proposed district.

As one of the three or four best preserved of the original 12 Nike installations in the Bay Area, the Lake Chabot Nike Missile Base retains most of the important features of the original Nike Missile Base, a historically significant technological advance in the history of United States military defenses. The period of significance is 1955 to 1974. However, since the buildings were designed to function as an ensemble, no single building has the potential to evoke the significance of a Nike base as a whole. Therefore, none of the buildings at SF-31C appear to be eligible individually for the California Register.

Criterion 2: The resource is associated with the lives of persons important to the nation or to California's past.

Historic research did not identify any significant figures in history associated with the Lake Chabot Nike Missile Base, thus the buildings do not appear to be significant under California Register Criterion 2.

Criterion 3: The resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values.

The concrete block buildings in area SF-31C are typical of their period and do not represent an innovative design or high artistic values. They were constructed to a generic Nike base design developed by the US Army Corps of Engineers and implemented throughout the United States and several foreign countries. They are thus not sufficiently exceptional or distinguished examples of military architecture in the East Bay to be eligible under California Register Criterion 3. The same is true of the buildings at the other areas of the Lake Chabot Nike base.

Criterion 4: The resource has the potential to yield information important to the prehistory or history of the state or the nation.

Criterion 4 applies primarily to archaeological sites. The area SF-31C buildings were constructed using standard techniques for concrete block construction common during the mid 20th century. The buildings would not yield information important to history or prehistory thus the buildings are not eligible under Criterion 4.

## **Contributing Elements to Potential Historic District**

As noted above, the Lake Chabot Nike Missile Base appears eligible for the California Register as a historic district under Criterion 1. Below the contributing elements to the potential district are listed by base area. Please note that the lists for SF-31A and SF-31L are based on review of archival sources only; no field recording was completed for these base areas and therefore these findings should be considered preliminary.

## SF-31A: Administrative Area

Nike base administrative areas "contained the barracks, mess hall, recreational facilities, and administrative offices for the battery" (Morgan and Berhow 2010:20). SF-31A include three barracks buildings, a mess hall, and a combined supply/administration building. All five of these buildings are still standing and have the same floor plan and very similar external appearance as when they were first constructed. They are used by EBRPD as part of its fire and police headquarters facility. Four of the five buildings appear to be contributing elements to the potential historic district. The fifth, described as a 'prefabricated building' on 1965 plans, is of a different design and materials to the original buildings and does not appear to be eligible.

Table 1: Contributing Status of Buildings at the Administrative Area

| Building        | Contributing? | Notes   |
|-----------------|---------------|---|
| Barracks 1      | Y             | Main barracks building - likely had recreation facilities as well |
| Barracks 2      | Υ             |   |
| Prefab Barracks | N             | Prefabricated building in different materials, added 1965         |
| Mess Hall       | Υ             |   |
| Supply/Admin    | Υ             |   |



Figure 21: Buildings at SF31-A, 2019



Figure 22: Buildings at SF31-L, 2019

### SF-31L: Launch Area

Nike base launch areas included 2-3 magazines, each with an elevator. Inside the magazines there were a "missile storage bay with launcher loading, racks, crew shelter, launching section control panel, ventilation equipment, test equipment hydraulic controls and the elevator." Other launch area facilities included "missile assembly and testing building, a liquid fueling area, a power generating facility, storage and repair buildings, sentry posts, and a nearby ready room. The entire launch complex was surrounded by a security fence topped with barbed wire" (Morgan and Berhow 2010:14). The liquid fueling area was surrounded by a distinctive semicircular earthen berm, presumably to contain accidental explosions or fires.

Today, SF-31L is used as an EBRPD corporation yard. The two magazine elevator doors are still clearly visible on aerial photographs, though whether any underground elements survive is unknown. The missile assembly building, liquid fueling area and surrounding earthen berm, generator building, and dog kennel are all visible on aerial photographs. The dog kennel appears to be in disrepair and is not a contributing element to this base area. The other buildings, however, do appear to be eligible because they retain their original layout and materials, and because very few San Francisco Bay Area Nike launch area buildings survive in good condition.

Table 2: Contributing Status of Buildings at the Launch Area

| Building         | Contributing? | Notes  |
|------------------|---------------|--|
| Launch Elevators | Υ             | Possible underground elements                      |
| Missile Assembly | Υ             |  |
| Liquid Fueling   | Υ             |  |
| Earthen Berm     | Υ.            |  |
| Dog Kennel       | N             | Dilapidated, not part of standard Nike base design |

### SF-31C: Integrated Fire Control Area

SF31-C includes four buildings which contribute to the potential California Register district, including the Guard Station, Generator Building, Corridor Building (excluding the Radar Storage Shed), and HIPAR Building. (The HIPAR Building is outside the current project area.) We find these buildings to be eligible for the following reasons:

- The Guard Station is somewhat deteriorated but retains its structural integrity and clearly evokes the experience of entering the base during its period of significance.
- The Generator Building, Corridor Building, and HIPAR Building retain their integrity of location, design, setting, materials, feeling, and association and are typical examples of this now-rare type of Nike facility. Together, the three buildings represent the main functions of a Nike Control area (electrical power, target acquisition, signal processing, and targeting).

By contrast, the Quarters Building and the Radar Storage Shed do not appear to be eligible. The Quarters Building is dilapidated and has major structural defects, so that it lacks integrity of materials. Compared to the two surviving barracks buildings at SF31-A, the Quarters Building is small and a minor example of a residential structure on the Nike Base. The Radar Storage Shed, which is attached to the Corridor Building, is a corrugated metal building built as a later addition. The design of this later addition is not compatible with the other Nike Base buildings and apparently its function is not related to the IFC's function during its period of significance. For that reason, the Radar Storage Shed does not appear to be a contributing resource to the potential California Register historic district.

Table 3: Contributing Status of Buildings at the Control Area

| Building             | Contributing? | Notes  |
|----------------------|---------------|--|
| <b>Guard Station</b> | Υ             |  |
| Quarters Building    | N             | Lacks integrity; several better-preserved barracks present at SF-31A |
| Generator Building   | Υ             |  |
| Corridor Building    | Υ             | Radar Storage Shed addition to this building is not contributing     |
| HIPAR Building       | Υ             | Outside project area   |

#### Conclusion

In conclusion, four of the five buildings at SF-31C at the Lake Chabot Nike Missile Base appear eligible as contributing resources to a California Register-eligible historic district because they retain historic integrity and are significant under Criterion 1. At SF-31A, four buildings appear to be contributing resources, while at SF-31L three buildings, one earth feature, and two in-ground features appear to be contributing resources.

### IMPACT ASSESSMENT

Alameda County proposes to demolish the Radar Storage Shed and the Quarters Building at SF-31C. As noted above, the Radar Storage Shed is a later addition to the Corridor Building, is architecturally unrelated to the other buildings on the base, and has no relationship to the function of the Control area. The Quarters Building is badly dilapidated and lacks integrity of design and materials, since much of the interior has been destroyed. It is also the least significant of several barracks buildings that remain on the base. Given this, neither of these buildings appear to be eligible to the California Register as contributing elements of the potential Nike SF-31 historic district.

In conclusion, the demolition of the Radar Storage Shed and the Quarters Building would not cause a substantial adverse change to the potential Lake Chabot Nike Base historic district; thus it would not be a significant effect under CEQA (Section 15064.5 of the CEQA Guidelines).

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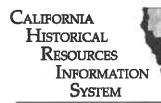
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ALAMEDA COLUSA CONTRA COSTA DEL NORTE

HUMBOLDT LAKE MARIN SANTA CLATA
MENDOCINO SANTA CRUZ MONTEREY NAPA SAN BENITO

SAN FRANCISCO SAN MATEO SOLANO SONOMA

**Northwest Information Center** Sonoma State University 150 Professional Center Drive, Suite E Rohnert Park, California 94928-3609 Tel: 707.588.8455 nwic@sonoma.edu http://www.sonoma.edu/nwic

**NWIC File No.: 18-2232** 5/23/2019

Daniel Shoup Archaeological/Historical Consultants 609 Aileen Street Oakland, CA 94609

Resources within project area:

Resources within 0.25 mile radius:

### re: 19-10 San Leandro Nike Missile Base

The Northwest Information Center received your record search request for the project area referenced above, located on the Hayward USGS 7.5' quad. The following reflects the results of the records search for the project area and a 0.25 mile radius:

None

None

| Reports within project area: None        |              |                    |                         |                  |
|--|--------------|--------------------|-------------------------|------------------|
| Reports within 0.25 mile radius:         | S-11774      |                    |                         |                  |
| Resource Database Printout (list):       |              | □ enclosed         | ☑ not requested         | □ nothing listed |
| Resource Database Printout (detai        | <u>ls):</u>  | $\square$ enclosed | □ not requested         | ☐ nothing listed |
| Resource Digital Database Record         | s:           | $\square$ enclosed | $\square$ not requested | □ nothing listed |
| Report Database Printout (list):         |              | $\square$ enclosed | □ not requested         | ☐ nothing listed |
| Report Database Printout (details)       | <u>:</u>     | $\square$ enclosed | ⊠ not requested         | ☐ nothing listed |
| Report Digital Database Records:         |              | □ enclosed         | ☐ not requested         | ☐ nothing listed |
| Resource Record Copies:                  |              | $\square$ enclosed | $\square$ not requested | ⊠ nothing listed |
| Report Copies:                           |              | ⊠ enclosed         | $\square$ not requested | ☐ nothing listed |
| <b>OHP Historic Properties Directory</b> | :            | $\square$ enclosed | □ not requested         | ☐ nothing listed |
| Archaeological Determinations of         | Eligibility: | $\square$ enclosed | □ not requested         | ☐ nothing listed |
| CA Inventory of Historic Resource        | es (1976):   | $\square$ enclosed | □ not requested         | ☐ nothing listed |
| Caltrans Bridge Survey:                  |              | $\square$ enclosed | □ not requested         | ☐ nothing listed |
| <b>Ethnographic Information:</b>         |              | $\square$ enclosed | □ not requested         | ☐ nothing listed |
| Historical Literature:                   |              | $\square$ enclosed | □ not requested         | ☐ nothing listed |
| Historical Maps:                         |              | $\square$ enclosed | ⊠ not requested         | ☐ nothing listed |
| Local Inventories:                       |              | $\square$ enclosed | □ not requested         | ☐ nothing listed |
| GLO and/or Rancho Plat Maps:             |              | $\square$ enclosed | ⊠ not requested         | ☐ nothing listed |
| Shipwreck Inventory:                     |              | $\square$ enclosed | 🛮 not requested         | ☐ nothing listed |

#### \*Notes:

\*\* Current versions of these resources are available on-line:

Caltrans Bridge Survey: http://www.dot.ca.gov/hq/structur/strmaint/historic.htm

Soil Survey: http://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateld=CA

Shipwreck Inventory: http://www.slc.ca.gov/Info/Shipwrecks.html

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Lisa C. Hagel Researcher



# **OPASSOCIAT**

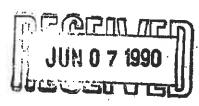
Anchaeological Consultants

"SINCE THE BEGINNING"

# 3613 FOLSOM ST. ALIFORNIA 94110

SAN FRANCISCO, 415/550-7286

John Pelka KDAW 753 Davis Street San Francisco, CA



May 3, 1990

Dear Mr. Pelka,

RE: ARCHAEOLOGICAL FIELD INSPECTION OF THE PROPOSED LAKE CHABOT TERRACE PROJECT, SAN LEANDRO, ALAMEDA COUNTY, CALIFORNIA

During the first week of May, 1990, I completed an archaeological field inspection of the above referenced project area in the city of San Leandro, Alameda County, California. The following report is a summary of my findings to date.

# PROJECT DESCRIPTION

The proposed Lake Chabot Terrace project area consists of an approximately 60 acre parcel comprising the former grounds of the San Leandro Rock Company Quarry site located on the south side of Lake Chabot Road in the hills of San Leandro. Located on the Hayward U.S.G.S. topographic map of the area, the parcel is bordered on the north by Lake Chabot Road, on the west by the Bay-O-Vista neighborhood and country club, on the south by open steep hillside and on the east by hillside which rises up from the quarry. According to maps supplied by EDAW, the proposed development will occur inside area which has been used as a quarry until three years ago.

At the time of my visit quarrying activity had ceased at the site, leaving the entire landscape with the exception of the western border altered by the quarrying activity; all the flats inside the project area have been artifically created, and all existing sloped areas are also the result of rock removal. Three structures are to be found on the property, one a house dating approximately to the 1930's, a small shed near the drainage and a larger metal building located to the south of the existing wooden house. As I stated earlier, only the drainage which forms the border between the quarry and the country club is anywhere near in original shape; dropping steeply from the graded flats of the quarry, this area contains a combination of native and imported grasses, some shrubbery and a row of pine trees which were probably planted as a wind break.

# SUMMARY OF ARCHIVAL RESEARCH

Prior to the actual field inspection, maps and records on file at the California Archaeological Inventory located at Sonoma State University were checked for any evidence of recorded historic or prehistoric sites in and around the project area. In a response received from Ms. Lisa Hagel of the Inventory dated April 19, 1990 (file #90-179), she reported that there were no sites recorded in or around the project area, and that there were no sites recorded for the immediate vicinity of the project zone.

# DESCRIPTION OF FIELD INSPECTION

The actual field inspection was carried out by myself with the aid of a large scale topographic map supplied by EDAW. Since archaeological material could have been located anywhere inside the project area, I chose to inspect as much of the ground as was available which did not appear to have been graded away. This turned out to be only the western edge of the property which runs down to the Bay-O-Vista Country Club. Both the slope of this area and the fairly flat bottom were inspected completely. No archaeological materials were discovered anywhere inside this area.

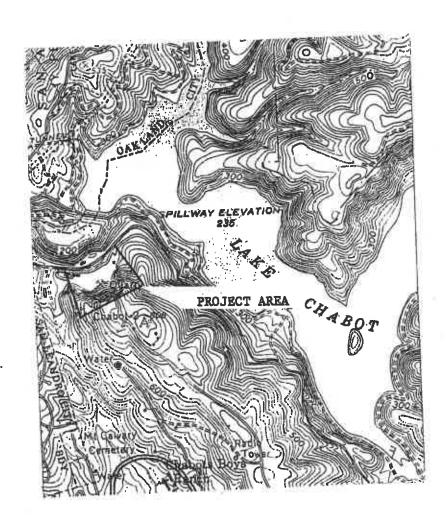
# SUMMARY OF FINDINGS

No indications of prehistoric habitation or use of this area was discovered anywhere inside the project zone. This is not a surprise, since the quarrying there has altered or removed over 90% of the ground. The remainder of the area, including the western border which slopes down to the country club, is too steep to have held habitation sites or most types of use sites other than quarrys (those utilized by the Native Americans). No signs of quarrying activities or other outcrops of rock which could have held evidence of rock art (petroglyphs or pictographs, mortar holes or cupules) were seen in this area or any other area.

The only potentially significant cultural resource is the house which is located on the knoll on the northern edge of the property. This house, in excellent shape, appears to have been built some time in the twenties or thirties in a style known localy as a California Bungalow. I do not however, believe that this house in itself is significant enough to warrant mitigation; numerous examples of its style exist throughout the San Leandro area. Furthermore this house does not exhibit any unique architectual features. In short, future development of the quarry will have no visible effects on cultural resources.

Sincerely.

Miley Paul Holman Holman & Associates LAKE CHABOT TERRACE AREA OF ARCHAEOLOGICAL RESEARCH
HAYWARD U.S.G.S. TOPOGRAPHIC MAP



y.,

Appendix B: DPR 523 Forms

## **PRIMARY RECORD**

Primary # HRI # Trinomial

NRHP Status Code

3D

Other Listings

Review Code

Reviewer

Date

Page 1 of 16 P1. Other identifier: \*Resource Name or #: Nike Missile Site SF-31C

\*P2. Location: □ Not for Publication 🗵 Unrestricted

\*a. County Alameda and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad Hayward Date 1993 T; R; Rancho San Antonio (V & D Peralta); MD B.M.

c. Address 2892 Fairmont Drive Clty San Leandro Zlp 94578

d. UTM: Zone 10S 577,650 mE / 4,175,530 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

\*P3a. Description: (Describe resource and its major elements, Include design, materials, condition, alterations, size, setting, and boundaries)

Formerly the Integrated Fire Control area of Nike missile base SF-31C at Lake Chabot, one of 12 SF Bay Area Nike bases. At SF-31, the Launcher area (SF-31L) and the Administrative area (SF-31A) were on the east side of Lake Chabot, about 1.1 miles southeast of SF-31C.

[SEE CONTINUATION SHEET]

\*P3b. Resource Attributes: HP34 (Military Property)

\*P4. Resources Present: 🗵 Building 🗆 Structure 🗆 Object 🗆 Site 🗅 District 🗅 Element of District 🗅 Other (leolates, etc.)



P5b. Description of Photo: Corridor Building (L) and Generator Building ®

\*P6. Date Constructed/Age and Source:

Historic □ Prehistoric □ Both Constructed 1955

\*P7. Owner and Address:

Alameda County General Services Agency 1401 Lakeside Drive. Ste 800 Oakland, CA 94612

\*P8. Recorded by:

Daniel Shoup and Ward Hill 609 Aileen Street Oakland, CA 94609 www.ahc-heritage.com

\*P9, Date Recorded: May, 2019

P10. Survey Type: Architectural

\*P11. Report Citation: D. Shoup and W. Hill, 2019. Historic Resource Evaluation Report of Nike Base SF-31C. Archaeological/Historical Consultants, Oakland

| *Attachments: 🗆 l  | NONE 🗵  | Location Map      | Continuation S  | Sheet 🗵   | Building, | Structure, and | Object Record       |
|--------------------|---------|-------------------|-----------------|-----------|-----------|----------------|---------------------|
| ☐ Archaeological F | Record  | □ District Record | □ Linear Featu  | re Record | ☐ Milling | Station Record | I ☐ Rock Art Record |
| ☐ Artifact Record  | ☐ Photo | graph Record      | ☐ Other (List): |           |           |                |                     |

DPR 523B (9/2013) \*Required information

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
HRI#
BUILDING, STRUCTURE, AND OBJECT RECORD

\*Resource Name or # Nike Missile Base SF-31C \*NRHP Status Code 3D

| Page 2 of 16  |  |   |   |  |  |
|---|--|---|---|--|--|
| •   | ke Missile Base SI   | F-31C   |   |  |  |
| B2. Common Name:<br>B3. Original Use:   | Military Base  |   | B4.   | Present Use: Vacan   | t/Storage  |
| *B5. Architectural Style:<br>Built to Standard I<br>construction with   | US Army Corps of I   | Engineers pla   | ns for Nik  | e missile bases.   | Cinderblock  |
| *B6. Construction Hist<br>Built 1955, modifie   |  | sioned 1974.  |   |  |  |
| *B7. Moved? 🗵 No<br>*B8. Related Features:  | ☐ Yes ☐ Unknown  | n Date:   |   | Original Location:   |  |
| B9a. Architect:   | Army Corps of Eng  | ineers  | b. Bullder:   | Army Corps of  | Engineers  |
| *B10. Significance: The<br>Period of Significa  | erne National De<br>nnce 1955-1974   | efense<br><b>Property Type</b>  |   | Francisco Bay An Applicable Criteria   |  |
| decommissioned in I one of three functi area (SF-31L) and to of the Lake Chabot missile system and The San Francisco infrastructure, wa | onal areas of the the Administrative Regional Park. 'was intended to de Bay Area, then | Lake Chabot N<br>e area (SF-3)<br>The Nike sys<br>efend the Uni<br>home to ma | ike Missile  (A). Areas  tem was the  ted States  ny militar  ions by the | e Base which inclu<br>SF-31L and SF-31<br>e world's first<br>against nuclear-<br>y bases and cri | ided the Launch<br>A are now part<br>surface-to-air<br>armed bombers.<br>tical defense |
|   |  |   |   |  |  |
| B11. Additional Resource *B12. References:  | Attributes:  |   |   |  |  |
|   | MION CHEEM!  |   |   |  |  |
| [SEE CONTINUA . B13. Remarks:   | TION SHEET]  |   | (Sketch Ma  | ap with north arrow requ   | ired.)   |
|   | Daniel Shoup and   | Ward Hill   |   |  |  |
|   | May, 2019  |   |   |  |  |
|   |  |   |   |  |  |
|   |  |   |   |  |  |
| (This space reserved for  | official comments.)  |   | i i   |  |  |
|   |  |   |   |  |  |
|   |  |   |   |  |  |
|   |  |   |   |  |  |
|   |  |   |   |  |  |

DPR 523B (9/2013) \*Required information

Primary# HRI # Trinomial

### **CONTINUATION SHEET**

Property Name: Nike Missile Base SF-31C

Page 3 of 16

### \*P3a, Description (Continued):

### Setting

The Control area for Nike SF-31 is located at on a 1.43-acre parcel at the north end of Fairmont Ridge, at approximately 800 feet elevation. SF-31C consists of five buildings arranged on a north/south axis. From south to north, they are the Guard Station, Quarters Building, the Generator Building, Corridor Building (with attached Radar Storage Shed) and the HIPAR building. The buildings are located on terraces that slope downward from north to south. A perimeter chain link fence surrounds the entire Control area. To the east of the property, eucalyptus wind rows mark the crest of Fairmont Ridge, while the rest of the vicinity is steep, hilly, and covered with open grassy fields. The views to the west from the site include the cities of San Leandro and Oakland, while Lake Chabot is visible to the east.

In addition to the five buildings, the Control area has several circular concrete tracking radar pads and a water storage tank (modern) set on concrete piers. Various concrete pads and asphalt covered parking areas are adjacent to the buildings. Concrete stairs and the access road join the three levels of the terraced site. The Quarters Buildings and the Generator Building are on the south, with the Corridor Building at mid-level then the HIPAR Building and Antenna at the site's highest elevation. The Guard Station is at the lowest elevation at the bottom of the hill adjacent to the access road leading up to the main building complex. All the buildings on the site are constructed of concrete block, with the exception of two additions: a Radar Storage Shed built of corrugated metal is attached to the Corridor Building, while the Quarters Building has a wood-frame addition on its west side.

### Guard Station

From Fairmont Avenue, the access road leads approximately one mile up to the entrance to SF-31C. Here, one would pass a small Guard Station on the right-hand side of the road adjacent to a locked gate leading into the restricted-access facility. The guard station is rectangular in plan, constructed of concrete block, and measures 6 by 8 feet. It sits on a flat concrete pad. It has a flat roof with wide eaves, an opening for a single hinged door on the west and a single, wood-sash, double-hung window on each of the three facades. The original door and window glass are missing, and the interior is now very deteriorated. The access road continues up a steep hill to the north to the main building complex set on the top of the ridge.

#### Quarters Building

Ascending the hill from the Guard Station, the Quarters Building (also known as Building D) is at the south end of the main building complex on the west side of the access road. The Quarters Building sits on the edge of a steep hill. Made of concrete block, the Quarters Building has an L-shaped plan (with a recess at the southeast corner) and a flat roof (with shallow eaves) covered with tar and gravel. The building is 64 feet long and 18 feet wide on the north, narrowing to 12 feet on the south (1,320 square feet). The building has wood sash, double-hung windows - now covered over with plywood - on the east and west façades. Concrete steps lead down from the access road to the main building entrance on the north. A concrete bench and a barbeque area are adjacent to the north façade. On the west side of the building, a wood-framed addition projects out over the hill slope. This addition was built between 1965 and 1974.

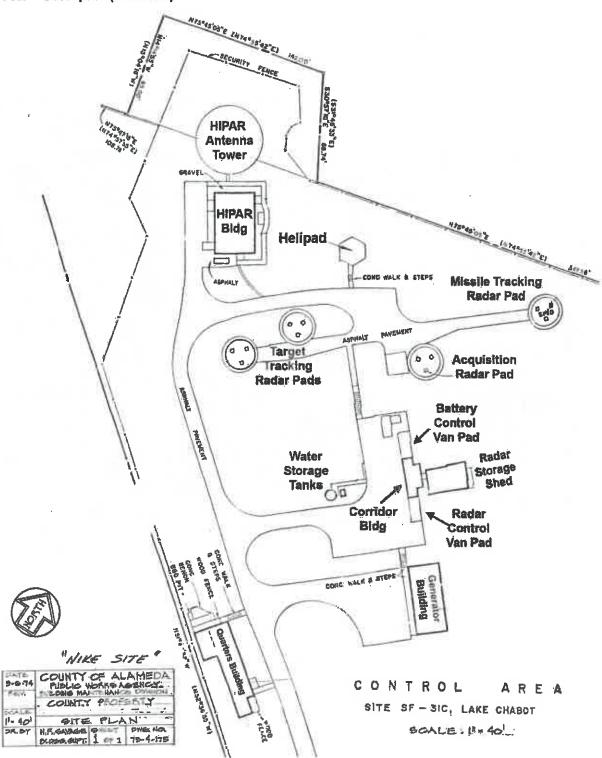
Primary# HRI # Trinomial

### **CONTINUATION SHEET**

Property Name: Nike Missile Base SF-31C

Page 4 of 16

\*P3a. Description (Continued):



Primary# HRI # Trinomiai

### **CONTINUATION SHEET**

Property Name: Nike Missile Base SF-31C

Page 5 of 16

### \*P3a. Description (Continued):

Inside, the Quarters Building is divided into two major spaces arranged on a north/south axis. In the main space on the south, the roof has collapsed resulting in extensive water damage, mold and dry rot deterioration to the interior. The interior originally included a kitchen, a living area and a sleeping area for the approximately 10 military personnel posted to area SF-31C.









Clockwise from upper left: Guard Station; Quarters Building; Corridor Building and Radar Storage Shed; Generator Building.

#### The Generator Building (Building C)

The Generator Building is directly east of the Quarters Building, across the access road and an asphalt parking area. The rectangular-plan (25 by 56 feet), concrete block Generator Building has a flat roof with shallow eaves. A variety of ventilating equipment is on the roof. The main west façade opens out to an asphalt paved parking area on the west. Viewed from the west façade, the building has two sections: a taller section on the right (south), which held the generator machinery, and a lower and somewhat narrower section on the left (north). The taller south section has three garage openings now covered with plywood. A pair of ventilation grates is above each opening. The lower section on the north also has three openings for

Primary# HRI # Trinomial

### **CONTINUATION SHEET**

Property Name: Nike Missile Base SF-31C

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### \*P3a. Description (Continued):

doors now covered with plywood. The north façade has a single hinged door and an adjacent window. Inside the main generator floor occupies most of the interior (1,400 square feet). This open free space has exposed aluminum roof trusses supporting an aluminum plate roof. An adjacent room on the north appears to be a shop area and for storing parts. No generator equipment remains inside the building, which has extensive mold damage and is used to store miscellaneous items.

### Corridor Building & Radar Storage Shed (Building B)

A concrete staircase leads up from the Generator Building to the Corridor Building (and the later addition Radar Storage Shed to the east). The Corridor Building (also called the electronic shop building) was used to connect mobile communications and computer vans to one another and to the other equipment at the Control area.

The Corridor Building is on a flat site with adjacent concrete pads: the Battery Control Van Pad on the north and the Radar Control Van Pad to the south. The T-shaped plan Corridor Building is constructed of concrete block. The overall dimensions are 20 by 5 feet with a central three-foot-wide extension at the center of the east façade forming the leg of the T. (The Radar Storage Shed, a later addition, is attached to the Corridor Building via this extension). The Corridor Building has hinged doors on each side of the main west façade. Inside, it has a single room with wood paneling, vinyl floor covering and acoustical tile ceiling with fluorescent lighting. Obsolete computer and radio equipment are stored in the room.

#### Radar Pads

A second concrete staircase leads to the upper terrace, where four concrete radar pads and the HIPAR building are located. Nike Control areas had four small rotating radar units, which were mounted on tripods fixed to concrete pads. These radars provided target tracking, target acquisition, and missile tracking capabilities. The four radar pads are oriented in an east-west line and measure approximately 15 feet in diameter.

### High Power Acquisition Radar (HIPAR) Building (Building A) and HIPAR Antenna Tower

North of the radar pads stand the HIPAR Building and adjacent antennas, which will not be affected by the project. A chain link fence surrounds this concrete block building which has a flat tar and gravel roof and metal doors on each façade. The building measures 34 by 50 feet (1,700 square feet) and is rectangular in plan. The interior was not accessible. The modern radar dishes on the building and the Antenna Tower are part of the Alameda County Sheriff's Office communications and Emergency Response System, and are not associated with the building's original use as part of the Nike Missile Base. It was unclear whether any of the existing antenna masts were once part of the HIPAR radome.

Primary# HRI # Trinomial

### **CONTINUATION SHEET**

Property Name: Nike Missile Base SF-31C Page 7 of 16

### \*P3a. Description (Continued):





HIPAR Building (left) and LOPAR Pad (right)

### \*B10. Significance (Continued):

### The Nike Program

The Nike program, developed by the US Army, was the first operational surface-to-air missile system. The first Nike batteries became operational in 1954, and the program rapidly expanded to cover the entire United States and some allied countries. each Nike base consisted of three areas: an Administrative area, a Control area, and the Launcher area (Morgan and Berhow 2010:10). For technical reasons, the Control area had to be separated from the Launcher area by 0.5-3.5 miles, though the Launcher and Administrative areas were usually co-located. As a result, Nike bases were usually situated on two separate parcels of land. The typical Launcher area contained four above-ground missile launchers, two or three underground magazines which stored 24 to 32 missiles, a missile assembly and testing building, storage and repair building, and a ready room for on-duty personnel. The Control area contained radar and computer systems that tracked hostile aircraft and guided the missiles to their targets, and were often constructed on high ground. Administrative areas contained the mess hall, barracks, administrative offices, and recreational facilities. All of these structures were built to standard designs developed by the Army Corps of Engineers and were built of cinderblock with flat roofs (Morgan and Bercow 2010:20). Each of the base areas was surrounded by a security fence.

The Nike base system initially used Nike Ajax missiles, two-stage guided missiles powered by a motor using liquid fuel. The Ajax missiles could reach speeds of over 1,600 mph and altitudes of up to 70,000 feet. However, their range was only 25 miles and soon after the Nike base system was initiated, development began on an improved missile, the Nike Hercules. The Nike Hercules missile had a range of about 90 miles, could reach speeds above 2,700 mph and altitudes up to 150,000 feet, and could carry a nuclear warhead (Military Standard 2019).

Primary# HRI # Trinomial

### CONTINUATION SHEET

Property Name: Nike Missile Base SF-31C

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### \*B10. Significance (Continued):

The development of intercontinental ballistic missiles after 1965 made the Nike system less valuable for continental defense, and many batteries were decommissioned in the late 1960s. After the 1972 Strategic Arms Limitation Treaty with the Soviet Union, the Nike program was shut down.

### Nike in the San Francisco Bay Area

During the late 1950s, the US Army Corps of Engineers acquired land for 12 Nike bases around San Francisco Bay. These bases were commanded from the 6th Region, US Army Air Defense Command at Fort Baker in San Francisco.

- SF-08: San Pablo Ridge
- SF-09: San Pablo Ridge/Berkeley
- SF-25: Rocky Ridge/Bollinger Canyon
- SF-31: Lake Chabot/Castro Valley
- SF-37: Coyote Hills/Newark
- SF-51: Milagra/Pacifica
- SF-59: Fort Funston/Mt. San Bruno
- SF-87: Fort Cronkite/Sausalito
- SF-88: Fort Barry/Sausalito
- SF-89: Fort Winfield Scott
- SF-91: Angel Island
- SF-93: San Rafael

All of these sites except for SF-31, SF-51, and SF-88 were deactivated by 1971. The remaining three were deactivated in 1974 (Lonnquest and Winkler 1996:323). The bases today are in varying condition: three are in good condition, four in fair condition, and five are mostly or totally demolished. SF-88 at Fort Barry is now part of the Golden Gate National Recreation Area and is the only Nike site in the United States that is open to the public as a museum.

### Nike Base Integrated Fire Control Areas

Integrated Fire Control areas (or Radar Course Directing Centrals in Army technical documents) generated and broadcasted the radar signals used to detect targets, interpreted signal data, and controlled targeting, firing, and detonation of missiles. Control areas were laid out using one of several standardized designs that could be adapted to the topography and size of the available property. The two main types were the "unconsolidated" layout, where each base function was housed in a separate building, and the "consolidated" layout, which saw most of the area's equipment placed in two buildings. SF-31C had an "unconsolidated" layout (Nike Historical Society 2019). The main structures at an unconsolidated layout Control area, such as the project area, were the HIPAR Building, the Radar Arrays (HIPAR, LOPAR, Tracking Radars, the Electronic Shop Building (also called the Corridor Building), the Generator Building, the Quarters Building, and the Guard Shack.

Primary# HRI # Trinomial

## **CONTINUATION SHEET**

Property Name: Nike Missile Base SF-31C Page 9 of 16

#### \*B10. Significance (Continued):

The High Power Acquisition Radar (HIPAR) system was installed at Nike installations that were upgraded for use with Hercules missiles after 1958. HIPAR allowed detection of missiles or aircraft at higher altitude than the previous LOPAR system. It was effective against small, supersonic targets and could defend against tactical ballistic missiles (Lonnquest and Winkler 1996:180).

Low-Power Acquisition Radar (LOPAR) consisted of a rotating directional antenna that contained a receiver and transmitter array, mounted on a circular concrete pad. LOPAR worked similarly to HIPAR, but had a shorter range. After a target was acquired using LOPAR and HIPAR arrays, a Target Tracking Radar (TTR) would follow the target and provide data to the Target Ranging Radar (TRR) displays. After launch of an interceptor missile, a Missile Tracking Radar (MTR) system would monitor the missile's course and transmit guidance commands (Nike Historical Society 2019). The three tracking and ranging radar systems were also mounted on concrete pads.

The Corridor Building served as a bridge between two portable trailers containing the radar control equipment, with one trailer being attached on either end to form a corridor (another name for the building was the "Corridor Building". It was used in Control areas with unconsolidated layouts; in posts with consolidated layouts this equipment was located inside the HIPAR building. Trailers were used because the Nike system was originally designed as a mobile artillery unit before it was adapted for fixed air defense. The battery control trailer (or "trailer mounted director station") provided the battery control officer with the information he needed to direct the battery. The radar control trailer (or "trailer mounted tracking station") held equipment for operating the target acquisition and missile tracking systems, using signals received from the HIPAR building (Military Standard 2019).

The Generator Building held generators and power converters. Most Nike bases ran on normal 60 hertz, 120 volt power, but were furnished with diesel generators in case of emergency. The transformers were used on a continuous basis to convert 60 hertz, 120 volt commercial electricity to the 400 hertz power used by the Nike radars (the generators also produced power at 400hz).

The Quarter's Building provided an eating and sleeping area for the crew of 10 assigned to the Control Area. The Guard Shack controlled entry to the complex.

### SF-31 at Lake Chabot

The US Army constructed Nike base SF-31 near Lake Chabot in 1955, leasing the land from Alameda County and EBMUD. The base was initially staffed by Company A of the 441st Anti-Aircraft Artillery Battalion (1955-1958), followed by Company A, 4th Battalion, 67th Air Defense Artillery Regiment (1958-1963) and Company B, 1st Battalion, 250th Air Defense Artillery Regiment (1963-1974). Commanders of SF-31 included Captain John Ringer (1955), Captain Thomas B. Dodgen (1957, 1958), and Major James R. Vanderveen (1974) (Oakland Tribune 1958, 1974; Strobel 1955).

Primary# HRI # Trinomial

### CONTINUATION SHEET

Property Name: Nike Missile Base SF-31C

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### \*B10. Significance (Continued):

The Launcher area (SF-31L) was located approximately 270 yards east of the south end of Lake Chabot and consisted of eight launchers and two magazines that held 20 Nike Ajax missiles, along with a missile assembly building, missile fueling station, generator building, and dog kennel (Sebby 2016). All of the buildings still stand on site, along with a number of buildings built after decommissioning of the Nike Base. The magazine elevator doors are still visible in aerial photographs, though it is unknown whether any of the underground facilities survive.



Nike Base SF-31, with administrative area (SF-31A) in foreground, launcher area (SF-31L) in middle ground, and integrated fire control area (SF-31C, the project area) behind the treeline on the ridge in background.

The Administrative area (SF-31A) was about 1000 feet east of the Launcher area and consisted of one large and two small barracks buildings, a mess hall, and a combined supply and administration building. (Sebby 2016). This area is currently used by the East Bay Regional Park public safety division and appears to be largely intact.

## **CONTINUATION SHEET**

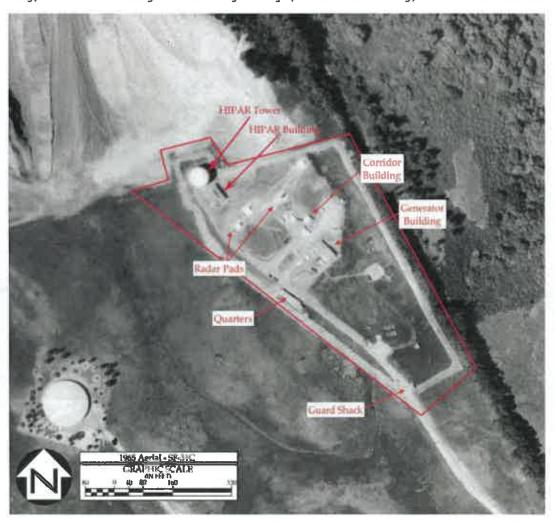
Property Name: Nike Missile Base SF-31C

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### \*B10. Significance (Continued):

SF-31C, located on Fairmont Ridge above Lake Chabot, was about 1.1 miles west of SF-31L and SF-31A (Sebby 2016). Its location gave it "360-degree line of site radar coverage by the Site's tracking and search radar system" (Sebby 2016). The Control area was located on land leased from Alameda County.

The area layout at SF-31C was the "unconsolidated" type and was laid out on a roughly north-south axis, following the line of Fairmont Ridge. From south to north, the facilities included the Guard Shack, Quarters, Generator Building, Electronic Shop Building, LOPAR and target tracking arrays, HIPAR building, and HIPAR radome.



Aerial Photo of SF-31C circa 1965.

<sup>&</sup>lt;sup>1</sup> Fairmont Ridge runs approximately 20 degrees west of north.

Primary# HRI # Trinomial

### **CONTINUATION SHEET**

Property Name: Nike Missile Base SF-31C

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#### \*B10, Significance (Continued):

In the late 1950s and early 1960s, SF-31 underwent modifications to accommodate the new Nike Hercules missiles. The magazines in the Launcher area were modified to hold 12 Nike Hercules missiles and new facilities were constructed at SF-31L including missile and warhead assembly, crew readiness, and security buildings (Sebby 2016). The Army installed a High Power Acquisition Radar (HIPAR) system in the Control area to guide the Hercules missiles, acquiring an additional 17.5 acres from the San Leandro Rock Company for this expansion (Sebby 2016). Andel, Inc. of Castro Valley won a contract to construct new concrete radar pads in 1961, presumably as part of the Hercules retrofit (Oakland Tribune 1961).

Life on Nike bases was sometimes described as lonely, since the bases, although often defending urban areas, were in sparsely settled areas like that around Lake Chabot. Because each part of the base had to be staffed 24 hours a day, the soldiers manning SF-31C slept and ate at the Control area in the quarters building. Most of the soldiers assigned to Nike bases were teenage draftees, with a small number of older, trained technicians. The small percentage of married men stationed at the bases usually had local homes and spent 3-4 nights a week there (Craib 1955).

The bases had some entertainment facilities such as a day room with television sets, ping-pong and pool tables and athletic courts (Craib 1955, Oakland Tribune 1956a). The Red Cross had program for volunteers to visit the East Bay Nike bases regularly to serve refreshments and help the soldiers feel like part of the community (Oakland Tribune 1956b). Soldiers from SF-31 at Lake Chabot participated in Castro Valley parades (Oakland Tribune 1959) and helped fight local fires. When EBMUD asked how they could thank them for their help, the one of the men replied that they just wanted to be allowed to fish in the lake (Oakland Tribune 1958). The project area garnered some attention in local newspapers in 1955, when soldiers at the base adopted a 10-year-old Castro Valley boy, Richard Briggs, who began coming to the base every day during construction. Soon he was guarding the base with a BB gun and doing KP duty, with permission from the base commander, Capt. John Ringer (Strobel 1955).

At some point in the late 1960s, EBMUD sold part of the land the Nike base SF-31 was located on (most like likely SF-31L and SF-31A, on the other side of Lake Chabot from SF-31C) to the South County Community College District, who continued to lease the land to the US Army (Oakland Tribune 1970, 1975). These parts of the base are currently used as East Bay Regional Park Police headquarters. In 1974, the Army deactivated SF-31 and returned control of the leased site to the property owners (Sebby 2016). The project area was returned to Alameda County's control at this time. A closing ceremony was held at the project site and attended by Lt. Gen. Raymond L. Shoemaker, commander of the US Army Air Defense, and other dignitaries (Oakland Tribune 1974). Since then, the former fire control facilities within the project area have been periodically used by the sheriff, by HAM radio operators, or stood vacant.

Primary# HRI # Trinomial

### **CONTINUATION SHEET**

Property Name: Nike Missile Base SF-31C

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\*B10. Significance (Continued):

#### Integrity

The Lake Chabot Nike Missile Base retains a high level of historic integrity, especially compared to the seven Bay Area Nike Missile Bases where at least some of the original features are still extant. The historic integrity of the base's Control area (SF-31C) is especially good compared to other surviving Nike Missile Bases. The original setting and location of the buildings, road and site (terracing, radar platforms, vegetation, and fence lines) have not been altered in area SF-31C. The overall integrity of design and materials of four of the five simple concrete block buildings, and of the metal addition to the Corridor Building, is excellent. However, the Quarters Building lacks integrity of materials and design due to its collapsed roof and extensive interior damage, though the concrete block walls appear to be structurally sound.

The buildings at the Administrative Area (SF-31A) and Launch Area (SF-31L) were not visited for this report. However, review of recent aerial photographs shows that both areas have very good integrity, in that all of the buildings present in 1965 are still standing. Few Bay Area Nike bases retain any launch area features, and only three others retain all base three components in a good state of preservation.

The overall integrity of feeling and association of the Lake Chabot Nike Missile Base is high. The Control Area, in particular, is able to evoke the feeling of visiting the base during its period of significance. In conclusion, the Lake Chabot Nike Missile Base retains integrity of location, design, setting, materials, feeling and association. (The integrity of "workmanship" is not relevant to this property).

### Significance Evaluation

Four of the five buildings at SF-31C are contributing resources to a California Register-eligible Lake Chabot Nike Missile Base Historic District (which includes buildings and features at areas SF-31L and SF-31A) because they are significant under California Register Criteria 1 as defined in CEQA \$15064.5. The contributing buildings are the Guard Shack, Generator Building, Corridor Building, and HIPAR Building. The Quarters Building and the Radar Storage Shed addition to the Corridor Building are not contributing resources to the proposed district.

As one of the three or four best-preserved of the original 12 Nike installations in the Bay Area, the Lake Chabot Nike Missile Base retains most of the important features of the original Nike Missile Base, a historically significant technological advance in the history of United States military defenses. The period of significance is 1955 to 1974. However, since the buildings were designed to function as an ensemble, no single building has the potential to evoke the significance of a Nike base as a whole. Therefore, none of the buildings at SF-31C appear to be eligible individually for the California Register.

Historic research did not identify any significant figures in history associated with the Lake Chabot Nike Missile Base, thus the buildings do not appear to be significant under California Register Criterion 2.

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### \*B10. Significance (Continued):

The concrete block buildings in area SF-31C are typical of their period and do not represent an innovative design or high artistic values. They were constructed to a generic Nike base design developed by the US Army Corps of Engineers and implemented throughout the United States and several foreign countries. They are thus not sufficiently exceptional or distinguished examples of military architecture in the East Bay to be eligible under California Register Criterion 3. The same is true of the buildings at the other areas of the Lake Chabot Nike base.

The area SF-31C buildings were constructed using standard techniques for concrete block construction common during the mid 20th century. The buildings would not yield information important to history or prehistory thus the buildings are not eligible under Criterion 4.

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\*Resource Name or # Nike Missile Base SF-31C

