

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name: Nike-Ajax Missile Launch Site N-75L

Other names/site number: Army Air Defense Command (ARADCOM) Nike-Ajax Missile Launch Site N-75L; Nike Park; DHR No. 046-5052

Name of related multiple property listing: N/A

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

2. Location

Street & number: 13036 Nike Park Road

City or town: Carrollton State: VA County: Isle of Wight County

Not For Publication: N/A Vicinity: X

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this X nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property X meets does not meet the National Register Criteria.

I recommend that this property be considered significant at the following level(s) of significance:

 national X statewide X local

Applicable National Register Criteria:

X A B X C D

<p>Signature of certifying official/Title: <u>Virginia Department of Historic Resources</u> State or Federal agency/bureau or Tribal Government</p>	<p>Date</p>
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<p>In my opinion, the property <u> </u> meets <u> </u> does not meet the National Register criteria.</p>	
<p>Signature of commenting official:</p>	<p>Date</p>
<p>Title :</p>	<p>State or Federal agency/bureau or Tribal Government</p>

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4. National Park Service Certification

I hereby certify that this property is:

- entered in the National Register
- determined eligible for the National Register
- determined not eligible for the National Register
- removed from the National Register
- other (explain:) _____

Signature of the Keeper

Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

- Private:
- Public – Local
- Public – State
- Public – Federal

Category of Property

(Check only one box.)

- Building(s)
- District
- Site
- Structure
- Object

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Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
<u>6</u>	<u>0</u>	buildings
<u>1</u>	<u>0</u>	sites
<u>1</u>	<u>1</u>	structures
<u>1</u>	<u>0</u>	objects
<u>9</u>	<u>1</u>	Total

Number of contributing resources previously listed in the National Register 0

6. Function or Use

Historic Functions

(Enter categories from instructions.)

DEFENSE: military facility, air facility

Current Functions

(Enter categories from instructions.)

RECREATION AND CULTURE: outdoor recreation

GOVERNMENT: government office

SOCIAL: civic

VACANT: not in use

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7. Description

Architectural Classification

(Enter categories from instructions.)

MODERN MOVEMENT

Materials: (enter categories from instructions.)

Principal exterior materials of the property: CONCRETE, METAL

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The Army Air Defense Command (ARADCOM) Nike-Ajax Missile Launch Site N-75L, hereafter referred to as Nike-Ajax Missile Site N-75L, is composed of approximately 8 ½ acres of land directly associated with the 1954 Nike-Ajax installation, one of eight such batteries deployed within the Norfolk Defense Area (NDA) during the early years of the Cold War. Originally slated to become N-79, the site was operational earlier than expected and became N-75. The launch site is one of the few known surviving intact facilities built specifically for the Nike-Ajax missile. It includes approximately 95 percent of its original buildings and structures, including three intact underground missile magazines, the mess hall, barracks and headquarters building, the post exchange-supply room-craft shop, a missile test and assembly building, a pump house, a flagpole in front of the barracks/headquarters, and a distinctive earthwork designed to protect a fueling pad and the missile test/assembly building. Architecturally, the buildings are examples of the austere, stripped-down Modern architecture that proliferated after World War II, especially on military installations. Among the original buildings constructed for the Nike-Ajax installation, only the guardhouse is no longer extant. Surviving buildings are exemplary representations of modest concrete block construction characteristic of Cold War-era military installations. Although its use as a Nike-Ajax installation was brief, the district retains historic layout and design attributes distinct to Nike missile batteries nationwide. Its overall layout is based on specific engineering systems and the deliberate separation of the Launcher

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Area, Administrative Area, and radar Control Center (IFC). Following the deactivation of Nike-Ajax N-75 in 1961, the military utilized the installation as an Army radio relay station until 1972. Intact modifications installed during this period include an aboveground stairwell leading into Magazine A and concrete block rooms erected within Magazine A.

Narrative Description

The ARADCOM Nike-Ajax Missile Site N-75L (launch) encompasses approximately 8½ acres of land associated with the Launcher Area of the Norfolk Defense Area (NDA)'s Carrollton/Smithfield battery. The installation is located on the west side of Nike Park Road/Route 669 approximately 1 mile north of Carrollton and 4 miles southeast of Smithfield in Isle of Wight County, Virginia. Nike-Ajax Missile Site N-75L is located approximately 1,500 yards southwest of the site of its radar "control" center (N-75C) at Jones Creek. The latter is no longer extant. Construction of Nike-Ajax Site N-75L began in 1954. The missile battery was operational between 1955 and 1961 specifically for the deployment of the Nike-Ajax missile.

The Carrollton/Smithfield Nike-Ajax Missile Site N-75L is the center of Nike Park, an approximate 150-acre, county-owned recreational park established in 1975. The layout, arrangement of buildings, and landscape features of N-75L follow typical design elements of the Army's Nike-Ajax batteries. Among those design elements are a Launcher Area separated from the Administrative Area, and earthen berms (one oval, the other semi-circular) to protect a fuel pad (not extant) and the missile assembly and test building. Figures 1 and 2 illustrate a typical Nike battery layout, including a protective berm. An early site plan of N-75L reflects a similar layout (Figure 3).

The majority of the Nike-Ajax missile site N-75L is level ground, with the exception of the protective berm. The surface of the underground magazines is slightly elevated from the remainder of the battery. Nike-Ajax Site N-75L retains a distinct separation of the Launcher Area and Administrative Area. At the Carrollton/Smithfield site, the Launcher Area is composed of three intact underground missile magazines (A, B, and C); the fueling pad (not extant); remnants of the semi-circular berm south of the fueling pad area and an oval berm to the north of the fuel pad; and the missile assembly and testing building. The aboveground stairwell leading into Magazine A was constructed in 1961 during the Army's use of the installation as a radio relay station. The Administrative Area is adjacent to Nike Park Road/Route 669 and consists of the post exchange-supply-craft shop, the soldier barracks, mess hall, and the well pump house.

A guardhouse (not extant) formerly stood at the entrance of the installation. Upon entry along a paved drive, the post exchange-supply-craft shop and associated parking are directly to the north. On the south side of the entry road, the mess hall and barracks are arranged around a small grassed lawn with an original flagpole (contributing object) at its center. Paved pathways lead between the building entrances. The paved entry drive travels in a westerly direction, leading to the Launcher Area.

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Nike-Ajax Missile Site N-75L is surrounded by recreational fields and woodlands to the north and south; modern tennis courts and recreational park buildings, followed by Jones Creek to the west, and Nike Park Road/Route 669 to the east. Of note are eleven (11) former senior non-commissioned officers' (NCO) and married enlisted soldier's Ranch-style houses located on the east side of Nike Park Road and three (3) commissioned officers' quarters situated on the west side of Nike Park Road. All have been in private ownership since the Army disposed of the property. The spatial relationships and dwelling forms are indicative of mid-20th century housing for military personnel used at various installations during the Cold War era, lending this area overall integrity of location, setting, and association. Integrity of design, workmanship, materials, feeling, and association for the individual resources, however, is not known.

The historically associated Integrated Fire Control (IFC) site, bearing the designation N-75C, was located along Jones Creek approximately 1,500 yards northeast of Site N-75L. It is no longer extant, however, having been replaced by a convenience center and boat ramp, although some concrete building pads still exist.

Inventory

A total of nine (9) contributing resources are located within the Nike-Ajax Missile Site N-75L, including six (6) buildings, one (1) site, one (1) structure, and one (1) object. A non-contributing structure that postdates the property's period of significance and is unrelated to its historic significance also is within the historic boundary. The following inventory details each resource including date of construction and date of known modifications, as well as contributing versus non-contributing status and resource type.

Launch Area

1) Underground Missile Magazines (A, B, & C), 1954, 1961, Contributing Building

The missile launchers at N-75L are three independent concrete underground bunkers referred to as Magazines A, B, and C, and where the southernmost magazine is "A." The Nike-Ajax N-75L reportedly controlled 27 missiles, which were often raised simultaneously during the Nike-Ajax program, yet were never launched.¹ Each magazine held up to nine high-explosive anti-aircraft missiles "designed to provide mid-range defenses in the event of an air attack by the Soviet Union."²

According to local expert, member of the Isle of Wight Historical Society, and volunteer for the Isle of Wight County Museum Albert Burckard, each magazine measures 63 feet wide and 42 feet long with 10-foot ceilings. The missiles were raised above ground by an elevator and through a steel door. Beneath the elevator, the ground drops six feet, followed by another five feet to the elevator hatch, for a total of 21 feet high in the center of each magazine.³

The three abandoned underground missile magazines, which had long been sealed, were opened and inspected in 2013 prior to improvements to the property's aboveground skate park. The magazines were nearly fully flooded and required 25 feet of pumping before they could be

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inspected.⁴ Ralph Wilkerson, a former Army missile technician stationed at Site N-75, was among the individuals permitted into the interior of the underground magazines in 2013.⁵ According to Wilkerson, Magazine C was the most intact from its original construction. He indicated that Magazines A and B contained former Radio Corps personnel rooms that were added in 1961 when the facility was used as a radio relay station for the Army. Figures 4 and 5 show interior photographs of the magazines taken in 2013.

At surface level, the original massive concrete pad spans the entire length and width of the three magazines, and the blast plates and attachment plates of each are extant at the surface (Photographs 7-10).

2) Missile Test and Assembly Building, 1954, c. 1970, Contributing Building

The missile test and assembly building is surrounded by a chain-link fence. It is composed of two garage-type sections. The southernmost concrete block massing is the original testing and assembly building constructed in 1954 (Photographs 11 and 12). It is rectangular in shape with a flat roof. Ceilings are approximately 12 feet high. The building's façade (southern elevation) features a single garage bay door opening to a concrete pad. The concrete pad is depicted in the original construction drawings of the site and is presumed to be original to the design of the facility. Four, one-over-one, double-hung windows occupy the east (side) elevation. Above the windows extends a prominent shed roof over a gravel area used for heavy maintenance equipment. A small concrete block storage room extends from the west elevation and is also original to the building. A large rectangular frame addition was added to the north (rear) end when the county acquired the property in 1975. Despite the addition, the original missile test and assembly building survives intact.

3) Protective Berms (Earthen Mounds), 1954, Contributing Site

The Nike-Ajax Missile Launch Site N-75 contains its original protective berms surrounding the fueling pad and missile assembly and test building. The majority of the U-shaped, grassed, protective berm surrounds the south side of the former fueling pad and the west side of the missile assembly and testing building (Photograph 6). On the north side of the former fueling pad (not extant) is an oval-shaped berm. The earthen berms are approximately 6 feet in height. A small portion of the U-shaped berm was removed to accommodate footpaths leading from a parking lot south of Launch Site N-75. Despite this loss, the earthen berms are illustrative of the customary design feature planned for the majority of the Nike-Ajax batteries.

4) Aboveground Stairwell and Ventilation Shaft, 1961, Contributing Structure

The aboveground stairwell and ventilation shaft were reportedly constructed by the Army when the launch site was adapted for use as a radio relay station (Photograph 13). The stairwell is atop Magazine A near its southeastern corner. The structure provided ease of access into the interior of the underground magazine as well as improved ventilation. The enclosed stairwell is built into

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a portion of a surrounding earth mound, which is believed to be contemporaneous with the stairwell and erected for safety purposes.

The stairwell faces east and features a side-gabled roof and vertical fiberboard cladding. The roof is clad with standing-seam metal. The entrance is a two-leaf metal door. Sited at the southwest corner of the building is a low concrete ventilation shaft. Although not associated with surface-to-air missile launch operations, the building is reflective of the adaptive re-use of the Nike-Ajax installation between 1961 and 1971.

5) Skate Park, c. 2000, Non-Contributing Structure

Isle of Wight County erected the recreational skate park atop the missile magazines in c. 2000 (Photograph 14). The skateboard park measures approximately 150 feet by 90 feet and is surrounded by a chain link fence. It contains various wooden jumps and ramps. Due to its age and not being related to the property's significance, it is not considered a contributing element. The skate park features are not permanent fixtures and therefore do not detract from the integrity of the magazines in terms of design and materials.

Administrative Area

6) Barracks and Headquarters, 1954, Contributing Building, and Flagpole, 1954, Contributing Object

Located within the Administrative Area of the battery installation, the soldier barracks and headquarters building is essentially unaltered since its construction in 1954 (Photographs 15-22). The low-slung, horizontally massed, L-shaped building is concrete block construction with a flat roof with boxed overhanging eaves. The building is oriented northwest toward the direction of the mess hall. The asymmetrical façade (northwest elevation) has 9 windows, followed by the principal entryway, and two additional windows. At the south end of the façade is the projecting ell wing, which features a window and entry door. Ten of the 12 windows on the façade have paired, four-over-two, double-hung metal sash original to the building. The two windows south of the principal entryway have four-light fixed metal sash. Most of the windows retain their original steel mesh reinforcement within the glass panes to reduce possible shattering caused by blast forces. The installation's original flagpole still stands in front of the building and is a contributing object.

The primary entryway projects from the façade (Photograph 19). Its side walls are concrete block. The façade of the entryway appears to have been modified with the application of vertical board paneling on either side of the entry opening. A 3-light transom extends above the entire entryway. Through the entryway, a metal entry door is flanked by 3-light sidelights and a full-width transom. The entry on the façade of the projecting ell is a paneled door with four lights. A shed roof supported by square wood posts projects from the entry door.

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Interior observations confirm that the historic floor plan and finishes are largely intact. The majority of the interior is occupied by an open room that once housed the soldiers' bunks. It is reported that all of the bathroom fixtures, including sinks, toilets, mirrors and showerheads, are the same as those used by the Nike-Ajax soldiers. Interior doors also appear to be original, but the flooring was replaced in 2010. The southern section of the building, including the projecting ell, includes a hallway leading from the entry door to the rear of the building. The hall is flanked by office space historically used as the installation's headquarters.

7) Mess Hall, 1954, Contributing Building

The mess hall is rectangular in shape and faces northwest toward the entry road (Photographs 23 and 24). Like its counterparts, the mess hall is concrete block construction with horizontal massing. However, it features a very low-pitched, side-gabled roof. The façade (northwest elevation) presently contains three windows and a slightly-left-of-center entry with a metal, single-light door. Ghost marks suggest that two additional windows were infilled with concrete block. Two windows have paired, 1-over-1, double-hung sash and the third window has a 4-light, fixed metal sash. Loading bays on side elevations are infilled with concrete block. Despite minor exterior alterations and an interior renovation in 2018 and 2019, the mess hall continues to retain its historic form, design, materials, and workmanship.

8) Post Exchange, Supply Room, and Craft Shop, 1954, Contributing Building

Another fundamental element of the Nike program batteries is the Post Exchange (PX), Supply Room, and Craft Shop (Photograph 26). Nike-Ajax N-75L retains its original supply building, which also provided space for recreational activities and a post exchange. Like the barracks, this building is a long and low, horizontally-massed building characterized by its concrete block construction and lack of ornamentation. The building features a flat roof and faces southeast toward the entry drive and a parking lot. Now in use as the Mary W. Wells Senior Center, the building has 7 bays on its southeast façade consisting of 4, 1-over-1, double-hung sash metal windows and 3 entry doors. Slight irregularities in the facade's painted surface suggest that two additional windows were infilled with concrete block. Despite minimal exterior modifications, the building's integrity of design, materials, and workmanship survive, making it a contributing element to the Nike-Ajax Missile Launch Site N-75.

9) Well Pump House, 1954, Contributing Building

The well pump house is sited between the mess hall and the barracks. It is a modest building of concrete block construction with a flat roof. It features a single paneled door on the northwest elevation and a single, four-over-two, double-hung metal sash window on the west elevation. It appears to have remained unaltered since its 1954 construction.

Integrity Analysis

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Nike-Ajax Site N-75L's existing landscape features, layout, arrangement of buildings and structures, and architecture speak towards the deliberate design elements characteristic of the Nike park installations during their Cold War-era use in the 1950s-1960s. The Nike-Ajax N-75 launch site, adapted by the Army for use as a radio relation station from 1961-1971, retains a high degree of historic integrity despite the property's later conversion to form the center of a recreational public park established by Isle of Wight County in 1975. The former military installation's historic **location** along a predominantly wooded road on the east bank of Jones Creek is unaltered. The historic **setting** within the district is relatively unchanged as spatial relationships among the original buildings, structure, site, and object have been maintained, and despite the introduction of various modern ballfields in the larger park's acreage. Historic housing built for senior non-commissioned officers (NCOs), married enlisted personnel, and officers is located outside of the nominated district. Now privately owned, these dwellings appear to be still representative of typical military housing built after World War II, although integrity of individual resources is not known. Nevertheless, the grouping of houses in proximity to the launch site contributes to the nominated property's historic setting.

The **design** and layout of the launch site continues to reflect the Army's standardized plan for the Nike-Ajax sites constructed across the nation during the 1950s. This particular site follows the Chatelain Design plan developed by the New York architect, Leon Chatelain, Jr., which was intended to enable rapid construction of some 300 such bases worldwide whenever existing land conditions allowed. Of particular note are the incorporation of the protective berms and the distinct separation of the launcher site from administrative and housing areas. In addition to the **design** of the facility, individual buildings retain their original design, **workmanship**, and **materials**. The most substantial alterations to the original design occurred during the Army's adaptive reuse of the site as a radio relay station from 1961-1971. These modifications occurred within the interior of the missile magazines, and include slightly alterations to the protective berms and erection of the aboveground stairwell that also improved ventilation in the subsurface magazines. The collection of buildings within the launch site, the protective berms, and concrete slabs sheltering the underground missile magazines continue to be evocative of the installation's historic military use, and as such, its historic **feeling** and **association** are intact.

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8. Statement of Significance

Applicable National Register Criteria

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

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

Criteria Considerations

(Mark "x" in all the boxes that apply.)

- A. Owned by a religious institution or used for religious purposes
- B. Removed from its original location
- C. A birthplace or grave
- D. A cemetery
- E. A reconstructed building, object, or structure
- F. A commemorative property
- G. Less than 50 years old or achieving significance within the past 50 years

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Areas of Significance

(Enter categories from instructions.)

MILITARY

ARCHITECTURE

Period of Significance

1954-1971

Significant Dates

1954

1961

1971

Significant Person

(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

United States Army

Chatelain, Leon, Jr.

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Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Army Air Defense Command (ARADCOM) Nike-Ajax Launch Site N-75 near Carrollton in Isle of Wight County, Virginia, is significant at the statewide level under Criterion A in the area of Military for its use as a Nike-Ajax missile installation during the Cold War. The Nike defense system was the nation's first surface-to-air missile defense program and a significant aspect of military planning following World War II. Beginning in 1953, the United States deployed upwards of 200 Nike-Ajax batteries at strategic locations throughout the country. Nike-Ajax N-75L was one of eight installations deployed within the Norfolk Defense Area. In 1954, it became the nation's 75th Nike-Ajax battery to be activated. The Ajax missile was eventually replaced with the Nike Hercules, and Nike-Ajax Site N-75L was deactivated in 1961. The facility was adaptively reused by the Army Signal Corps as a radio relay station between 1961 and 1971. Today, this facility is among a few of the surviving intact surface-to-air launch sites built for the Nike-Ajax missile in Virginia. The property is also significant at the local level under Criterion C in the area of Architecture. It retains approximately 95 percent of its original buildings and design elements, including three underground missile magazines, earthen berms, and distinct separation of the Launcher Area and Administrative Area. The modest, concrete block buildings are excellent intact examples of post-World War II military construction design, methods, and materials. The property's period of significance is 1954 to 1971, beginning with the year the Nike-Ajax facility became operational and ending in 1971 when the Army ceased operating the facility as a radio relay station. Significant dates include 1954, when the Nike-Ajax installation became operational, 1961, when the Nike-Ajax missile launch site was deactivated and adapted for use as an Army radio relay station, and 1971 when the relay station ceased operations and ended military use of the property.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

Cold War and the Surface-to-Air Missile Defense Systems: 1945-1974

During the 40 years following the end of World War II, the United States and Soviet Union were locked in an intense political, military, and economic confrontation known as the Cold War. While competitions between the two superpowers were carried out at different levels and in various arenas, the "development and deployment of land-based defensive and strategic missile systems epitomizes Cold War weaponry."⁶ The development of the atomic bomb during World War II outmoded all existing defensive systems prior to the war. The threat of atomic destruction fueled the arms race, and new defense strategies were centered on ways to defend against the delivery of the atomic bomb.⁷

The Army's first surface-to-air missile defense program to protect large areas from bomber attacks began in June 1945. The Bell Labs and its manufacturing arm, Western Electric, began

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the development of a new radio-controlled system coded “Nike” after the winged goddess of victory in Greek mythology.⁸ When World War II ended with the surrender of Japan in August 1945, demobilization of many Army units ensued. However, the research and development of the Nike-Ajax system continued.

The United States Army Nike-Ajax missile was the first anti-aircraft missile deployed in the United States. Bell Labs and Western Electric designed the radio-controlled system, with Douglas Aircraft Company acting as the major subcontractor to design and manufacture the missile, booster, and launcher equipment. The development of the missile was slowed by cuts in the post-World War II defense budget and problems with the booster design. With the outbreak of the Korean War in 1950, defense efforts were renewed, and the Army Antiaircraft Command (ARAACOM) was formed with the objective to deploy “conventional” antiaircraft artillery at 66 strategic locations until the new missile defenses (i.e. Nike-Ajax) were deployed.⁹ The command system was particularly fluid during this period and the Army’s missile mission was renamed the Army Air Defense Command (ARADCOM).¹⁰

Nike used a command guidance system, in which the major control equipment was ground-based and not part of the expendable missile. A distinguishing characteristic of the Nike system was that the Integrated Fire Control (IFC) site was located at least 1,000 yards from the launch site and had to be within the line-of-sight of the missiles in order for the radars to maintain contact and control. The acquisition radar (ACCQR) obtained data from target aircraft and provided the pointing data to a Target-Tracking Radar (TTR), which locked the target. The site’s Missile-Tracking Radar (MTR) locked on to the missile prior to firing and tracked the outbound Nike-Ajax. Radar data would transmit from the missile, thereby allowing the control center to provide guidance commands back to the missile in order to intercept the target.¹¹

The Nike-Ajax system was intended to supplement and eventually replace obsolete gun batteries that had been deployed around the nation’s major urban areas and vital military installations. The original design strategy projected a central missile assembly point from which missiles would be transported to aboveground launch racks surrounding the defended area. However, ARAACOM “discarded this semi-mobile concept because the system needed to be ready for instantaneous action to fend off a surprise attack.”¹² Instead, a fixed-site scheme was devised. Due to topography and land restrictions at various sites throughout the nation, a design architect, Leon Chatelain Jr., devised an underground magazine configuration that cut the land requirement from upwards of 120 acres down to 40 acres. ARAACOM and the developers of the Nike-Ajax system moved forward with Chatelain’s site design.¹³

Following two years of testing, the deployment of Nike-Ajax missile batteries commenced in 1953. The Nike-Ajax was the first supersonic surface-to-air missile system to become operational in the allied Western countries that included Europe and the United States.¹⁴ It was 32 feet 8 inches long and powered to supersonic speed by a solid rocket booster with a liquid-fueled sustainer with a range of 30 miles. The system was designed to detonate three warheads to the vicinity of a target aircraft and explode on command from the battery control center, which was located off-site from the launch installation.¹⁵

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Nike missiles were deployed in fixed firing positions at strategic locations throughout the nation. Specifically, Nike sites were arranged in a circular pattern around key American government, industrial, transportation, and military locations. The short range (30 miles) of the Nike-Ajax missiles resulted in many of the launch sites being located within suburban areas surrounding larger American cities. The first Nike-Ajax unit was established at Fort Meade, Maryland, in December of 1953. Between 1954 and 1957, the construction of Nike-Ajax batteries was carried out across the nation. By 1958, there were reportedly over 200 battery sites surrounding key U.S. cities and over 100 sites overseas in NATO countries.¹⁶

The Nike-Ajax N-75L installation near Carrollton, Virginia, was one of eight bases that made up the Norfolk Defense Area. Located within the urban and industrialized Hampton Roads area, the Norfolk Defense Area protected the critical military installations of Norfolk Naval Operating Base, Norfolk Naval Air Station, Langley Air Force Base, Norfolk Naval Shipyard in Portsmouth, Oceana Naval Air Station, the Naval Weapons Station, and the private Newport News Shipbuilding and Dry Dock Company.¹⁷ The U.S. Army designation for the Carrollton missile installation was N-75, with the “N” representing the Norfolk Defense Area and the “75” indicating that it was the 75th Nike-Ajax battery in the U.S. to become operational. Originally slated to become N-79, the Carrollton site was operational early and was thus designated N-75. The facility’s IFC site (designated N-75C) was located approximately 1,500 yards to the northeast along Jones Creek; it is no longer extant, however, having been replaced by a convenience center and boat ramp, although some concrete building pads still exist.¹

Beginning in the 1950s, the Nike locations defending the Norfolk Defense Area included eight (8) batteries and one (1) temporary installation. Among those are Fox Hill (N-02), Ocean View temporary site (N-20), Fort Story (N-25/after N-29), Kempsville (N-36/after N-49), Deep Creek/Portsmouth (N-52/after N-59), Nansemond/Suffolk (N-63/after N-69), Smithfield/Carrollton (N-79/after N-75), Denbigh/Patrick Henry (N-85/after N-97), and Hampton/Spiegelville (N-93/after N-99). The headquarter facilities for the Norfolk Defense Area were located at Fort Monroe in Hampton, Ballantine School in Norfolk, Reedsville/South Norfolk, Cradock Branch/Portsmouth, and Newport News. Chain of command for N-75’s “D” Battery was Fort Monroe to Group Headquarters in Norfolk to Fort Meade in Maryland and finally to Fort Carson in Colorado Springs, Colorado. Among the eight permanent Nike batteries, three (N-25, N-52, and N-85) were modernized to fire the Nike Hercules missile. Nike-Ajax Site N-75L was decommissioned in 1961. Site N-63 holds the distinction of being the last operated Nike-Ajax facility, being deactivated in November of 1964. Nike-Ajax sites N-52 and N-85 were later adapted for the Hercules missile and remained active until April 1974.¹⁸

Eighty soldiers operated the Ajax Missile Site N-75L, the majority of whom resided in the barracks.¹⁹ This facility’s personnel reportedly were among the best in the nation. According to a

¹ When the letter “L” is added at the end of the Nike-Ajax battery name, it designates the actual launch site where the missiles were stored in underground magazines. In close proximity was the integrated control site (IFC) for the base, which in the case of Nike-Ajax Site N-75 was referred to as N-75C.

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newspaper article in 1955, the “4th Missile Battalion, 51st Artillery of Hampton Roads’ 3rd Artillery Group, has been named the nation’s top Nike firing battalion of 1959.”²⁰ According to the article, the 51st Artillery unit received a nearly perfect score at the annual practice firing at Red Canyon Range, New Mexico. The scoring included pre-firing missile assembly, crew performance and range equipment checkout.

Prior to the actual deployment of the Nike-Ajax system, research and development began in 1953 on a more capable, longer ranged missile. Nike-Hercules was intended to mitigate some of the concerns found with the Nike-Ajax. Not only was the later missile solid-fueled, rather than liquid-fueled, it was capable of carrying a nuclear warhead. In addition, the new missile system was designed to use much of the existing infrastructure of the Nike-Ajax components.²¹ By 1958, the Army began production of the Nike-Hercules, which had a range of 75 miles.²² That same year, Nike-Hercules missile sites began to replace or modify Nike-Ajax batteries. In some instances, such as the case with the Nike-Ajax Site N-75L, the system was deactivated and missile operations ceased altogether.

Widespread changes in the U.S. defensive missile force occurred during the 1960s and 1970s. With improved relations with the Soviet Union, coupled with the need to pay for the United States’ growing military involvement in southeast Asia, the Army began closures of a number of the Nike installations beginning in the mid-1960s.²³ It also had become apparent that the Soviet Union was focusing its research and technology on the development of Intercontinental Ballistic Missiles (ICBMs), for which the Nike-Ajax and Nike-Hercules anti-aircraft, surface-to-air missiles were virtually useless as a line of defense. On November 8, 1973, the Army deactivated nearly all remaining Army Air Defense Command (ARADCOM) firing batteries, with few exceptions.

The impacts of the Cold War missile program on the United States is extensive. Not only did the program alter the military’s traditional roles and missions, and created the nuclear triad (land-, submarine-, and air-launched missiles), it “recast the relationship between the military, the scientific community, and industry into what President Eisenhower called the military-industrial complex.”²⁴ The technology that evolved out of the missile program was the foundation of the U.S. civilian space program. The program also brought the Cold War to the home front across the country as silos and missile launch sites and installations were constructed across the landscape. The Army’s Nike missile sites, located near the most densely populated areas in the nation, are an even more striking reminder of the perceived severity of the threat posed by the Soviet Union during the early years of the Cold War.

According to a c. 1955 Western Electric employee manual and information booklet, “Nike is the nation’s first combat-ready surface-to-air guided missile system...created to destroy enemy planes which might escape the nation’s outer defenses and come streaking at supersonic speeds to bomb our homes and factories.”²⁵ Such a statement attests to the growing nationwide fear of an attack on American soil, as well as the propaganda methods used to promote the development of the missile program during the early years of the Cold War. The Nike-Ajax launch sites

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represent the first of the surface-to-air missile installations deployed in the United States in this new era of warfare.

Nike-Ajax Batteries, Design and Architecture

Nike-Ajax batteries generally adhere to specific design specifications planned by the military. The Nike launch facility was a “self-contained installation with all of the capabilities for independent action.”²⁶ The facility was commonly composed of three principal areas: the Integrated Fire Control (IFC, also known as the “control site”); the magazine and Launcher Area (L); and the Administrative Area (A).

The Launcher Area was most often composed of two or three underground magazines, each with an elevator for raising the missile to the surface (Figure 1). At the surface, each magazine had four rails for elevating the missiles into launch position. Below-ground, the interior of the magazine included a storage bay to hold 10 to 12 missiles, launcher loading racks, a crew shelter, launching section control panel, ventilation equipment, test equipment, hydraulic controls, and the elevator. Upon an alert notice, “the missiles were pushed one at a time onto the elevator and raised to the surface, then pushed to the launch rails, and, with the proper electrical connections completed, raised to an angle of about 85 degrees for firing.”²⁷ In addition to the missile magazines, the Launcher Area often contained buildings for the assembly and testing of the missiles, a liquid fueling area, a power generator facility, and storage and repair buildings. A protective berm surrounding the fuel pad and missile test and assembly building is another planned design element characterizing the Launcher Area. The design of the berm surrounding the fueling pad and assembly and test building occurred frequently among the numerous Nike batteries across the nation. At Site-N-75L, the Launcher Area is largely intact, despite its adaptive reuse by the Army as a radio relay station before the installation was decommissioned altogether.

The Administrative Area for each missile facility contained the barracks, a mess hall, recreational facilities and administrative offices for the battery. The Administrative Area was either located within walking distance to the launch site or the ICF/battery control area. Nike-era buildings were built to standard Corps of Engineers design and most often characterized by cinderblock construction with flat roofs.²⁸ All of these character-defining features are present at Site N-75L.

The IFC, or battery control installation, was located at least 1,000 yards away from the launch site for missile control and tracking reasons. The IFC contained the radars and radar equipment for tracking the target and missile, the battery control assembly, the computer assembly, etc. The operational control equipment for both the Launch Area and the control consoles was housed in special truck trailers docked at “connector” buildings located at each site.²⁹ In the case of Site N-75L, the IFC is no longer extant.

In addition to the distinct separation of spaces, each with a particular function, characteristic of the Nike-Ajax installations, aesthetics were also taken into consideration in the planning of the

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facilities. The siting of the Nike batteries within the vicinity of large cities, coupled with rapid suburbanization characterizing post-World War II era housing trends, resulted in the public's increasing concern regarding the aesthetics of the facilities. The earlier, temporary anti-aircraft batteries were hastily erected, often constructed around tents, with wooden walkways and dirt roads. Upon receipt of permission to build, local sensibilities were taken into consideration during the early design and landscaping phases of deployment of the Nike-Ajax batteries. One source states that the "Nike facilities were designed with habitability and outward appearance in mind."³⁰ The plainly styled, single-story, concrete block buildings characterizing Nike installations were similar in appearance to school buildings being erected elsewhere. In addition, planned landscaping and shrubbery was incorporated into the design to enhance the appearance of the facility.³¹

As it survives, Nike-Ajax Site N-75L reflects the majority, if not all, of the typical design elements of a Nike-Ajax battery. The IFC was sited away from the launch site, yet within the line-of-site of missile launches. The Administrative Area includes the barracks, a mess hall, administrative offices, and a combined post exchange, supply room, and crafts shop. The Launcher Area is predominantly intact with the sealed, three (3) underground missile magazines identified at the surface by the large concrete pad with blast plates and rails. Photographs taken of the interior of the magazines in 2013 demonstrate their continued preservation (Figures 4 and 5). The protective berm surrounding the former fueling pad and missile assembly building is primarily intact. A similar site arrangement to Site N-75L is a Nike-Ajax launch site in the San Francisco defense area near Fort Winfield Scott (Figure 2). The semi-circular berm, fueling pad, siting of the missile test and assembly building, and the proximity and arrangement of the missile magazines is nearly identical to Site N-75L. A skate park, built in 2000, with wooden ramps and a chain-link fence, detracts from the overall setting of the launcher area, but it is a temporary and reversible alteration and the underground magazines are not impacted by it.

The buildings at the Nike-Ajax N-75L facility are highly typical of military construction during the early years of the Cold War. Specifically, the buildings generally feature low-slung, horizontally massed, concrete block construction. The exteriors are modest with minimal, if any, stylistic embellishment. The buildings were designed more for function and cost effectiveness rather than aesthetics. To some degree, they resemble the form and massing of then-increasingly popular Ranch-style houses, creating a somewhat suburban feel.

Unlike the later missile program facilities, the Nike bases "offered a collection of sturdy concrete buildings and a support infrastructure that could be put to a variety of uses."³² As such, the earlier Nike program installations were oftentimes adaptable. For example, the Nike battery near Davidsonville, Maryland, is presently a police training facility. Another Nike installation located near Gardner, Kansas, is a public school.³³ In the case of Isle of Wight County's Site N-75L, it was adapted for use by the Army as a radio relay station between 1961 and 1971 and then became part of a public recreational park in 1975.

United States Military Radio Relay Stations

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United States military radio relay systems and associated stations have their beginnings in the 1860s when the Army Signal Corps was established on June 21, 1860. The early years of the Signal Corps focused on visual signaling systems. By 1867, the Signal Corps accepted the responsibility of administering the newly developed electric telegraph for strategic and tactical purposes. Within 12 years, the Corps erected 4,000 miles of telegraph lines in the western regions of the United States. Increasingly modern infrastructure fell under the Corps' purview. During the 1870s, the Signal Corps adopted a national weather service system. During the Spanish American War of 1898, the Signal Corps supplied telephone and telegraph wire lines and cable communications. In 1907, an aeronautical division was established. The Army's first airplane was built to Signal Corps specifications and tested in 1908. Army aviation remained within the Signal Corps until 1918 when it became the Army Air Service.³⁴

Communications technological advancements during World War I were minor compared to those in armaments and weaponry. Radiotelephones developed by the Signal Corps were introduced into the European theatre in 1918. Although the new voice radios were superior to the radiotelegraph, the telephone remained the primary communication technology of World War I. In May of 1937, the Signal Corps patented the first Army radar. Along with the Signal Corps' tactical FM Radio, also developed in the 1930s, radar became "the most important communications development of World War II."³⁵

By the end of World War II, the Signal Corps had grown from a relatively small, poorly equipped agency to a "vast organization of skilled soldiers capable of providing global communications systems."³⁶ The Signal Corps produced, furnished, installed, and maintained specialized equipment for all the Army's ground forces and the Army Air Forces. Their radar and radio equipment were unsurpassed. Domestic transmitting stations were operational throughout the United States, providing tactical communications to troops, aircraft, and naval ships, as well as intercepting radio transmissions. The introduction of the Cold War and the surface-to-air missile program further fueled the necessity for radio relay stations at home. The use of existing military installations proved beneficial for the Signal Corps operations.

In 1961, Carrollton's Nike-Ajax N-75L was the first of the Norfolk Defense System Nike-Ajax installations to be deactivated. Operational equipment associated with the Nike-Ajax program at N-75L was removed from the underground missile magazines and the installation was adapted for use as a radio relay site for the Army Signals Corps.³⁷ The radio relay technicians worked in "walled off rooms" located within the former underground missile Magazine A.³⁸ Interior modifications to the magazines included the installation of the closed-off concrete block rooms (extant) and associated relay equipment. The aboveground enclosed stairwell with ventilation, and minor adjustments to the protective berms were additional modifications to Site N-75L when it was adapted for a relay station. There is no indication that any other construction or alterations occurred at the site during this period. The Signals Corps continued operations at N-75L until 1971. It is believed that all associated relay equipment was dismantled at that time.

Isle of Wight County acquired the former missile installation in 1975 to be used as a county park. Today, the park encompasses approximately 150 acres, including most of the Nike-Ajax N-75

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launch site (excluding the officers' housing and the dismantled IFC site), athletic facilities, and walking trails.

Summary

As a group, the Nike-Ajax missile installations had a nationally significant role in early national defense during the Cold War. Among the approximately 200 Nike-Ajax installations in the United States that were operational during the early years of the surface-to-air missile program, few intact examples survive. Outside of Virginia, individual installations have been listed in the NRHP at either a statewide or national level of significance, depending on their specific history and integrity. For example, in Florida, Nike Missile Site HM-69 is listed at the statewide level of significance. It appears to be more intact than Isle of Wight County's, which has lost the integrated fire control site, fueling pad, and guardhouse. Similarly, Site C47 in Indiana also is listed at the statewide level and, at the time of its listing in 1999, met Criteria Consideration G for properties that have achieved significance within the past 50 years. Perhaps the best-documented example of a missile site that is NRHP-listed at the national level of significance is Nike Site Summit in Anchorage, Alaska, which has been preserved by the U.S. Army, National Park Service, and a consortium of local and state preservation groups. Another outstanding example, although not individually listed in the National Register, is SF-88 in California's Golden Gate National Recreation Area, which is now a museum and open to the public.

Today, it is unclear the total number of Nike-Ajax facilities that were fully dismantled, partially dismantled, or simply abandoned since they were deactivated. A number of the installations were modified for the Nike-Hercules missile. Others, such as Site N-75L, were adapted for other military use before decommissioning occurred. Among the former Norfolk Defense Area installations, Nike-Ajax Site N-75L is hailed as the most intact and best-preserved illustration of the nation's first surface-to-air missile system, and is certainly the best such example still extant in Virginia, with a high degree of its integrity of location, setting, materials, design, workmanship, feeling, and association. According to one source, Site N-75L retains approximately 95 percent of its original 1954 U.S. Army structures.³⁹ According to the Virginia Cultural Resources Information System, Nike Missile Site N-36 (DHR #134-5173), located in Virginia Beach and one of the early Norfolk Defense sites, shares a similar layout as Isle of Wight County's Site N-75L. Like N-75L, it is currently operated as a park; however, its historic setting and a number of its historic missile-era buildings lack integrity. The Lorton Nike Missile Launch Site (W-64/65, DHR #039-5021) is associated with the Washington DC defense system. This site was operational between 1954 and 1974 before being adapted for use as the Lorton Prison.⁴⁰ A number of the buildings associated with the launch site are no longer extant, and construction of newer buildings within the setting has compromised the site's integrity. While several other Nike program launch sites are known to have operated in Virginia, they do not retain the integrity that is evident at Site N-75L.

Regarding Site N-75L's use as a radio relation station, although a number of military installations in Virginia included domestic transmitting stations, only Site N-75L was initially designed as a missile launch site and later adapted by the Army Signal Corps. Between 1961 and 1971, the Signal Corps made minor modifications to the facility that included creation of

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concrete block-enclosed rooms within the underground missile magazines and construction of the aboveground, enclosed stairwell with ventilation shaft. The Signal Corps' ten-year use of the facility as a communications station is associated with the military's involvement in the advancement of radio technology, both international and domestic, during the mid-20th century.

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9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

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Virginia Department of Historic Resources. 029-5021, Nike-Ajax Missile Site N-75. Survey form in Virginia Cultural Resources Information System (VCRIS).

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Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____
- recorded by Historic American Landscape Survey # _____

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository: Isle of Wight County Museum, Smithfield, Virginia; United States Army Center of Military History <https://history.army.mil/index.html>

Historic Resources Survey Number (if assigned): DHR No.046-5052

10. Geographical Data

Acreage of Property ~8½ acres

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Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates (decimal degrees)

Datum if other than WGS84: _____
(enter coordinates to 6 decimal places)

- | | |
|-------------------------|------------------------|
| A. Latitude: 36.962880° | Longitude: -76.564294° |
| B. Latitude: 36.963034° | Longitude: -76.563613° |
| C. Latitude: 36.961839° | Longitude: -76.562990° |
| D. Latitude: 36.962214° | Longitude: -76.561616° |
| E. Latitude: 36.962696° | Longitude: -76.561786° |
| F. Latitude: 36.963018° | Longitude: -76.561027° |
| G. Latitude: 36.962126° | Longitude: -76.560076° |
| H. Latitude: 36.961449° | Longitude: -76.560893° |
| I. Latitude: 36.962099° | Longitude: -76.561610° |
| J. Latitude: 36.961865° | Longitude: -76.562468° |
| K. Latitude: 36.961088° | Longitude: -76.562136° |
| L. Latitude: 36.961466° | Longitude: -76.564144° |
| M. Latitude: 36.961613° | Longitude: -76.563701° |

Or

UTM References

Datum (indicated on USGS map):

NAD 1927 or NAD 1983

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

The historic boundary begins at the northeast corner of the present Isle of Wight County tax parcel PIN #23-01-015A on the west side of Nike Park Road/Route 669. The boundary continues approximately 440 feet in a southeasterly direction along the existing eastern parcel boundary and the west side of Nike Park Road. The boundary then travels

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approximately 350 feet in a southwesterly direction along the north side of a non-historic entrance drive into the present Nike Park. The drive presently serves as a principal entry route. The boundary travels in a northwesterly direction along the western fence line of a baseball field for approximately 350 feet until reaching a point on the south side of the original entry road into the Nike-Ajax Missile Launch Site N-75. The boundary follows the south side of said road approximately 260 feet until reaching the intersection with an unnamed road, hereafter referred to as the "Assembly Building Access Road." Following along the east side of the Assembly Building Road, the boundary travels approximately 300 feet until reaching the northeast corner of the road and primary park entrance route. Travelling in a northwesterly direction for approximately 650 feet, the boundary follows the north side of the primary entrance route and the south and west sides of the historic berm earthworks. The boundary then travels approximately 150 feet in a northeasterly direction until reaching the southwest corner of Magazine A. The boundary then follows along the western edge of the three missile magazines for approximately 500 feet; followed by approximately 200 feet in a northeasterly direction; and another 500 feet in a southeasterly direction until reaching the southeast corner of Magazine A. Following along the north side of the original entrance to the missile installation, the boundary travels northeasterly an additional 430 feet, then approximately 200 feet to reach a point along the existing northern parcel line. Finally, the boundary travels approximately 260 feet in a northeasterly direction to the place of beginning along Nike Park Road/Route 669. The true and correct historic boundary is shown on the attached map entitled "Aerial View."

Boundary Justification (Explain why the boundaries were selected.)

The historic boundary for the Nike-Ajax Missile Launch Site N-75 encompasses all surviving buildings and structures directly associated with the operations of the Nike-Ajax missile system from 1954 to 1961 as well as all resources associated with the installation's use as an Army radio relay station from 1961-1971. The boundary excludes non-historic resources that are not associated with the Nike-Ajax launch site but are associated with the County-owned Nike Park, of which the launch site is at the approximate center. The former senior non-commissioned officers' (NCOs) and married enlisted soldiers' housing (total of 14) surviving to the north of the district are excluded from the historic boundary. Now privately owned, these houses are indicative of residential house types from the mid-20th century, but their integrity is not known. Future investigations, coupled with support by a majority of the property owners, could someday lead to expanding the historic boundary to include these dwellings; however, currently there are no plans for such a project.

11. Form Prepared By

name/title: Jaime L. Destefano, MSHP, Principal Architectural Historian
organization: Environmental Corporation of America
street & number: 222 2nd Avenue North, Suite 315
city or town: Nashville state: Tennessee zip code: 37206
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date: October 5, 2018

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property: Nike-Ajax Missile Site N-75L

City or Vicinity: Smithfield

County: Isle of Wight County State: Virginia

Photographer: Jaime L. Destefano

Date Photographed: February 13-14, 2018

Description of Photograph(s) and number, include description of view indicating direction of camera:

1 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_001
View. Administrative Area showing Original Flagpole in front of Barracks/Headquarters Building, camera facing northeast

2 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_002

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View. Administrative Area showing Mess Hall at left, Barracks/Headquarters Building and Flagpole in center, and Well Pump House at center-right , camera facing northeast

3 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_003

View. Administrative Area showing Barracks/Headquarters Building at left and Mess Hall at right, camera facing southeast

4 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_004

View. Launch Site Entry Drive looking toward Administrative Area, camera facing northeast

5 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_005

View. Launch Area looking toward Protective Berms from Walking Paths, camera facing northeast

6 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_006

View. Launch Area showing Protective Berm and Location of the Fueling Pad (not extant), camera facing northeast

7 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_007

View. Concrete Pad above Missile Magazines (Magazine B is at center), camera facing northwest

8 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_008

View. Steel Blast Plate (larger rectangular plate near middle center) and Launch Rail Tie Down Steel Plates (smaller rectangular plates to either side), camera facing northeast

9 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_009

View. Magazine C, with Crew Hatch Access at Right, camera facing southwest

10 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_010

View. Magazine C Blast Plate, camera facing southwest

11 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_011

View. Missile Test and Assembly Building, southeast oblique, camera facing northwest

12 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_012

View. Missile Test and Assembly Building, camera facing southwest

13 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_013

View. Aboveground Stairwell and Ventilation Shaft, camera facing northeast

14 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_014

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- View. Skate Park in Background (within chain-link fence) and Magazine C in Foreground, with Crew Access Hatch at Center, camera facing northeast
- 15 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_015
View. Barracks/Headquarters Building, camera facing southeast
- 16 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_016
View. Barracks/Headquarters Building, camera facing northeast
- 17 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_017
View. Barracks/Headquarters Building, camera facing southeast
- 18 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_018
View. Barracks/Headquarters Building, camera facing northeast
- 19 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_019
View. Barracks/Headquarters Building, entry door detail, camera facing southeast
- 20 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_020
View. Barracks/Headquarters Building, dormitory, camera facing northeast
- 21 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_021
View. Barracks/Headquarters Building, bathroom, camera facing southeast
- 22 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_022
View. Barracks/Headquarters Building, office, camera facing southeast
- 23 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_023
View. Mess Hall, northwest oblique, camera facing southeast
- 24 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_024
View. Mess Hall, rear elevation, camera facing southeast
- 25 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_025
View. Overview showing Barracks/Headquarters Building at Left, Flagpole and Well Pump House at Center, and Mess Hall at Right, camera facing southwest
- 26 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_026
View. Post Exchange/Supply Room/Crafts Shop (now the Mary W. Wells Senior Center), façade (south elevation), camera facing northwest
- 27 of 27. VA_IsleofWightCounty_Nike-AjaxMissileLaunchSiteN-75_027
View. Well Pump House, northwest oblique camera facing southeast

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LIST OF HISTORIC FIGURES

Figure 1. "Layout of Typical Nike Battery." From: Bell Telephone Laboratories Informational Booklet

Figure 2. Nike-Ajax Launch Site in San Francisco Defense Area, 1956. Source: National Air and Space Museum, Smithsonian Institution

Figure 3. Site Plan and Construction Drawing, 1954-1955. Provided by Isle of Wight County Museum

Figure 4. Interior of Magazine A showing position of roof elevator doors, south and north missile storage rooms to left and right and covered-over missile elevator pit, 2013. Provided by Isle of Wight County Museum

Figure 5. Magazine B, interior view of ladder leading to above-ground crew hatch, 2013. Provided by Isle of Wight County Museum

Figure 6. Postcard view of N-75L Ajax Missiles c.1955; from informational sign within Nike Park grounds

Figure 7. Missile Assembly Operations, c.1955; from informational sign within Nike Park grounds

Figure 8. Interior View of Mess Hall, Soldiers, and Col. Minot B. Dodson, 1958. Provided by Isle of Wight County Museum

Figure 9. Ralph Wilkerson Emerging from a Missile Magazine, c.1960. Provided by Isle of Wight County Museum

Figure 10. Ralph Wilkerson at Nike Ajax N-75L, 1958. Provided by Isle of Wight County Museum

Figure 11. Nike Ajax N-75 Personnel, 1958. Provided by Isle of Wight County Museum

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

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ENDNOTES

- ¹ Diana McFarland, "What Lurks Beneath," *The Smithfield Times*, 6 March 2013.
- ² McFarland 2013.
- ³ McFarland 2013.
- ⁴ McFarland 2013.
- ⁵ McFarland 2013.
- ⁶ Mark Berhow, *US Strategic and Defensive Missile Systems 1950-2004*, Great Britain: Osprey Publishing, 2005; p. 4.
- ⁷ Berhow 2005; p. 4.
- ⁸ Berhow 2005; p. 9.
- ⁹ Berhow 2005; p. 7-8.
- ¹⁰ National Park Service, Historic American Engineering Record, "Nike Site MS-40," HAER No. MM 100; p.14.
- ¹¹ Berhow 2005; p. 20.
- ¹² AMCOM, U.S. Army Aviation and missile Life Cycle Management Command, "Nike Ajax," <https://historyredstone.army.mil/miss-nikeajax.html>, nd.
- ¹³ AMCOM, U.S. Army Aviation and missile Life Cycle Management Command, "Nike Ajax," <https://historyredstone.army.mil/miss-nikeajax.html>, nd.
- ¹⁴ Berhow 2005; p. 18-19.
- ¹⁵ Berhow 2005; p. 18-19.
- ¹⁶ Berhow 2005; p. 18-19.
- ¹⁷ Historical Marker: 1954 Nike-Ajax Missile Site N-75L
- ¹⁸ John C. Lonnquest and David F. Winkler, *To Defend and Deter: The Legacy of the United States Cold War Missile Program*, Illinois: U.S. Army Construction Engineering Research Laboratories, 2014; p.333-334.
- ¹⁹ Diana McFarland, "What Lurks Beneath," *The Smithfield Times*, 6 March 2013.
- ²⁰ "Missile Unit Awarded as 1959's Best," unknown newspaper.
- ²¹ Berhow 2005; p. 20.
- ²² Berhow 2005; p. 9-10.
- ²³ Lonnquest and Winkler, 2014; p.4.
- ²⁴ Lonnquest and Winkler, 2014; p.126.
- ²⁵ Western Electric, "Nike: the U.S. Army's Guided Missile System," employee booklet, c1955.
- ²⁶ Berhow 2005; p. 19.
- ²⁷ Berhow 2005; p. 19-20.
- ²⁸ Berhow 2005; p. 20.
- ²⁹ Berhow, 2005; p. 20.
- ³⁰ Lonnquest and Winkler, 2014; p.95.
- ³¹ Lonnquest and Winkler, 2014; p.95.
- ³² Lonnquest Winkler, 2014; p.128.
- ³³ Lonnquest and Winkler, 2014; p.128.
- ³⁴ Kathy R. Coker and Carol E. Stokes, "A Concise History of the U.S. Army Signal Corps," Office of the Command Historian, U.S. Army Signal Center, 1986; p.3.
- ³⁵ Kathy R. Coker and Carol E. Stokes, "A Concise History of the U.S. Army Signal Corps," Office of the Command Historian, U.S. Army Signal Center, 1986; p.3.
- ³⁶ *Ibid*, p.23.

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³⁷ For additional research opportunities pertaining to the surface-to-air defensive program and the developmental history of the Army radio relay system refer to the United States Army Center of Military History <https://history.army.mil/index.html>

³⁸ McFarland 2013.

³⁹ Diana McFarland, "Brewers Neck BLVD to be Widened to Six Lanes," *Smithfield Times*, 30 January 2013.

⁴⁰ Virginia Department of Historic Resources, 029-5021, Nike-Ajax Missile Site N-75, survey form in Virginia Cultural Resources Information System (VCRIS).

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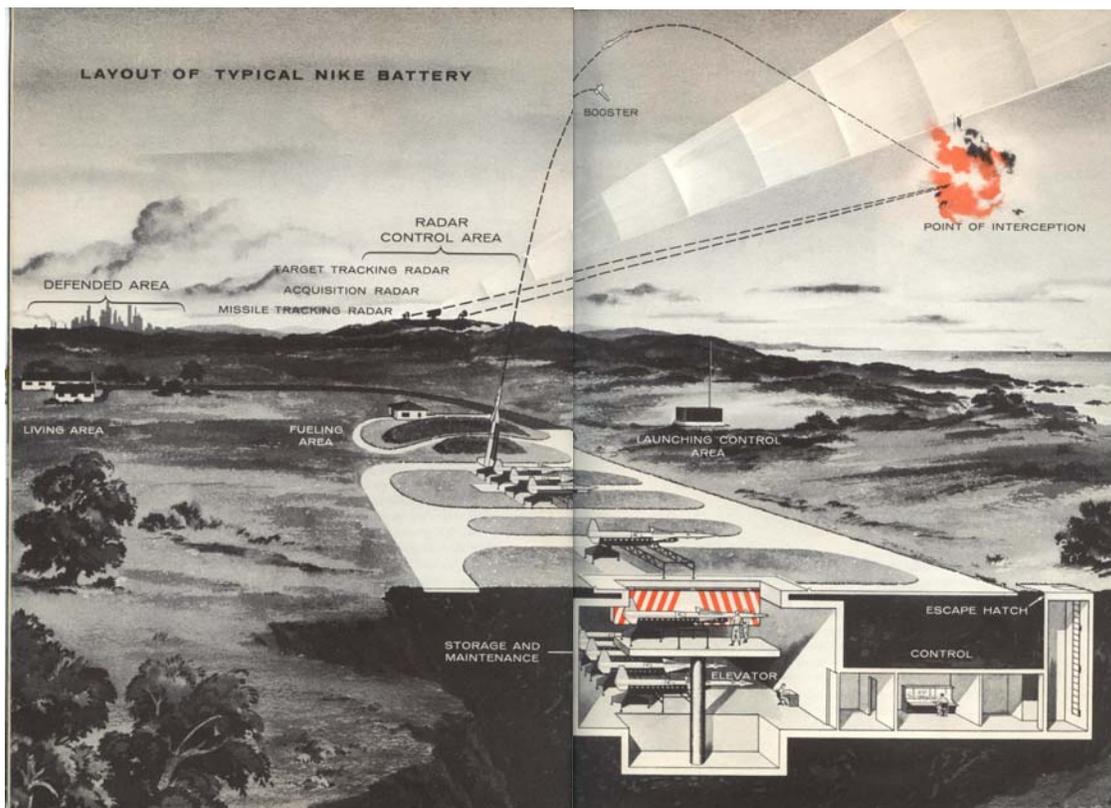


Figure 1. "Layout of Typical Nike Battery"
From: Bell Telephone Laboratories Informational Booklet



Figure 2. Nike-Ajax Launch Site in San Francisco Defense Area, 1956
Source: National Air and Space Museum, Smithsonian Institution

Note the protective berm surrounding the fueling pad and Assembly Building at bottom left

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Figure 3. Site Plan and Construction Drawing, 1954-1955
Provided by Isle of Wight County Museum

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Figure 4. Interior of Magazine A showing position of roof elevator doors, south and north missile storage rooms to left and right and covered-over missile elevator pit, 2013
Provided by Isle of Wight County Museum

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Figure 5. Magazine B, interior view of ladder leading to above-ground crew hatch, 2013
Provided by Isle of Wight County Museum

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Figure 6. Postcard view of N-75L Ajax Missiles c.1955; from informational sign within Nike Park grounds



Figure 7. Missile Assembly Operations, c.1955; from informational sign within Nike Park grounds

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HELVEN RICHTER LEO H. HOOBROOK SAT, 1ST CLASS COL. MINOT B. DODSON

Figure 8. Interior View of Mess Hall, Soldiers, and Col. Minot B. Dodson, 1958
Provided by Isle of Wight County Museum



Figure 9. Ralph Wilkerson Emerging from a Missile Magazine, c.1960
Provided by Isle of Wight County Museum

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Figure 10. Ralph Wilkerson at Nike Ajax N-75L, 1958
Provided by Isle of Wight County Museum

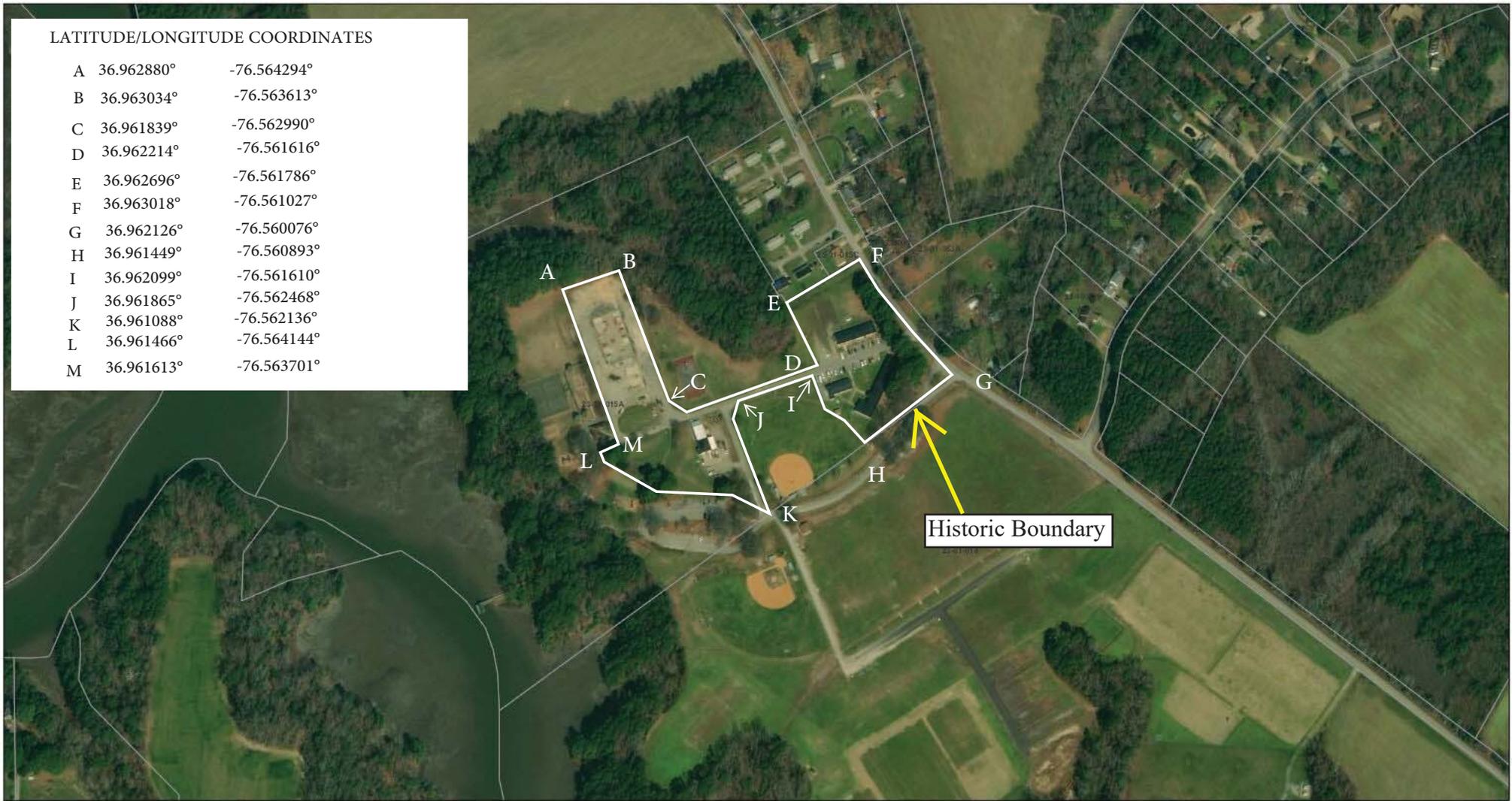


Figure 11. Nike Ajax N-75 Personnel, 1958
Provided by Isle of Wight County Museum

LOCATION MAP

LATITUDE/LONGITUDE COORDINATES

A	36.962880°	-76.564294°
B	36.963034°	-76.563613°
C	36.961839°	-76.562990°
D	36.962214°	-76.561616°
E	36.962696°	-76.561786°
F	36.963018°	-76.561027°
G	36.962126°	-76.560076°
H	36.961449°	-76.560893°
I	36.962099°	-76.561610°
J	36.961865°	-76.562468°
K	36.961088°	-76.562136°
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M	36.961613°	-76.563701°



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Isle of Wight Parcels

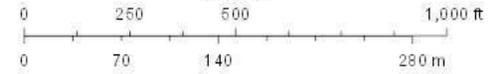
County Boundary

NIKE-AJAX MISSILE LAUNCH SITE N-75L

ISLE OF WIGHT COUNTY, VIRGINIA

DHR #046-5052

1:4,514



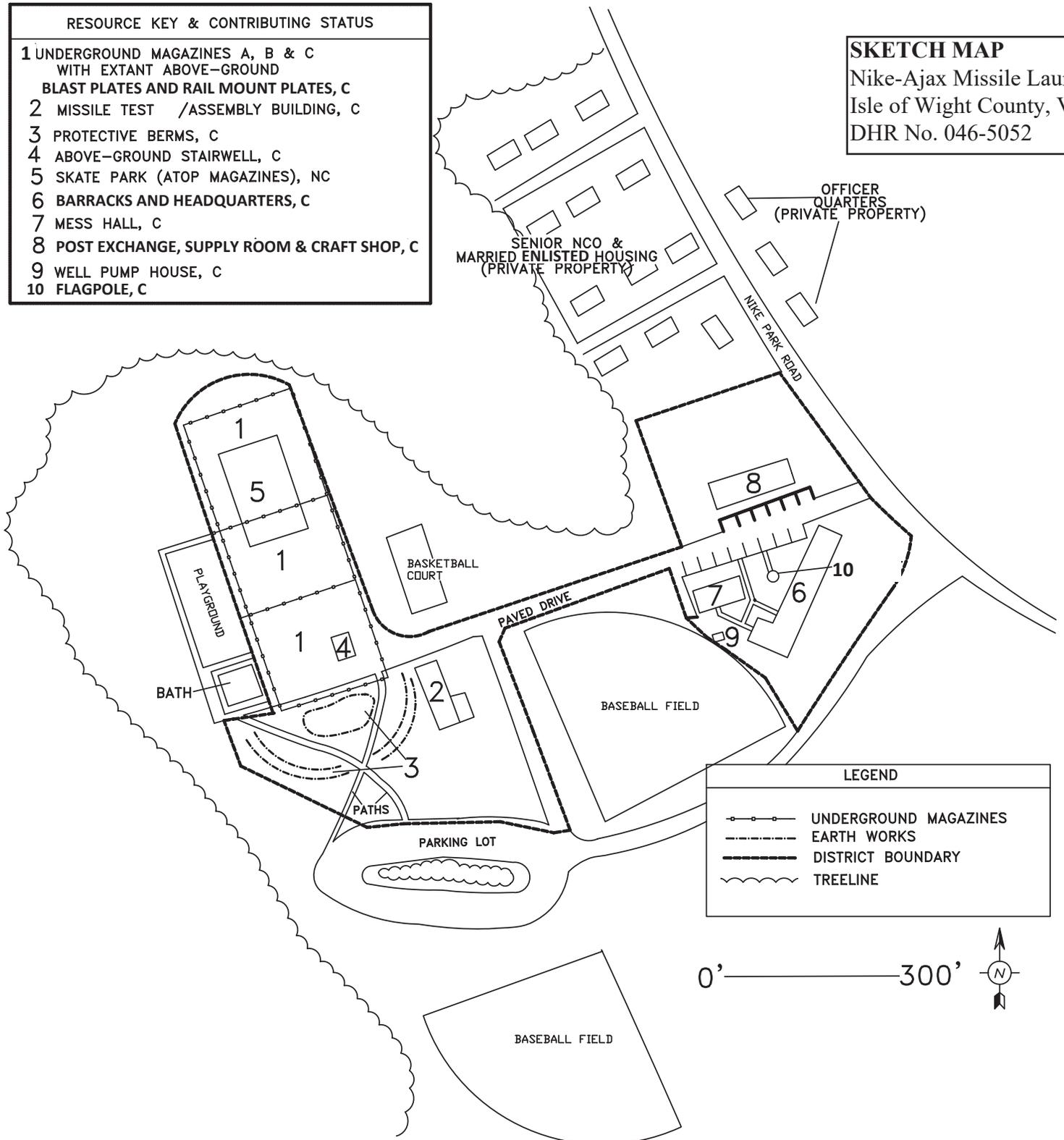
USDA FSA, GeoEye



Isle of Wight GIS Office
USDA FSA |

RESOURCE KEY & CONTRIBUTING STATUS	
1	UNDERGROUND MAGAZINES A, B & C WITH EXTANT ABOVE-GROUND BLAST PLATES AND RAIL MOUNT PLATES, C
2	MISSILE TEST /ASSEMBLY BUILDING, C
3	PROTECTIVE BERMS, C
4	ABOVE-GROUND STAIRWELL, C
5	SKATE PARK (ATOP MAGAZINES), NC
6	BARRACKS AND HEADQUARTERS, C
7	MESS HALL, C
8	POST EXCHANGE, SUPPLY ROOM & CRAFT SHOP, C
9	WELL PUMP HOUSE, C
10	FLAGPOLE, C

SKETCH MAP
 Nike-Ajax Missile Launch Site N-75L
 Isle of Wight County, VA
 DHR No. 046-5052



LEGEND	
	UNDERGROUND MAGAZINES
	EARTH WORKS
	DISTRICT BOUNDARY
	TREELINE



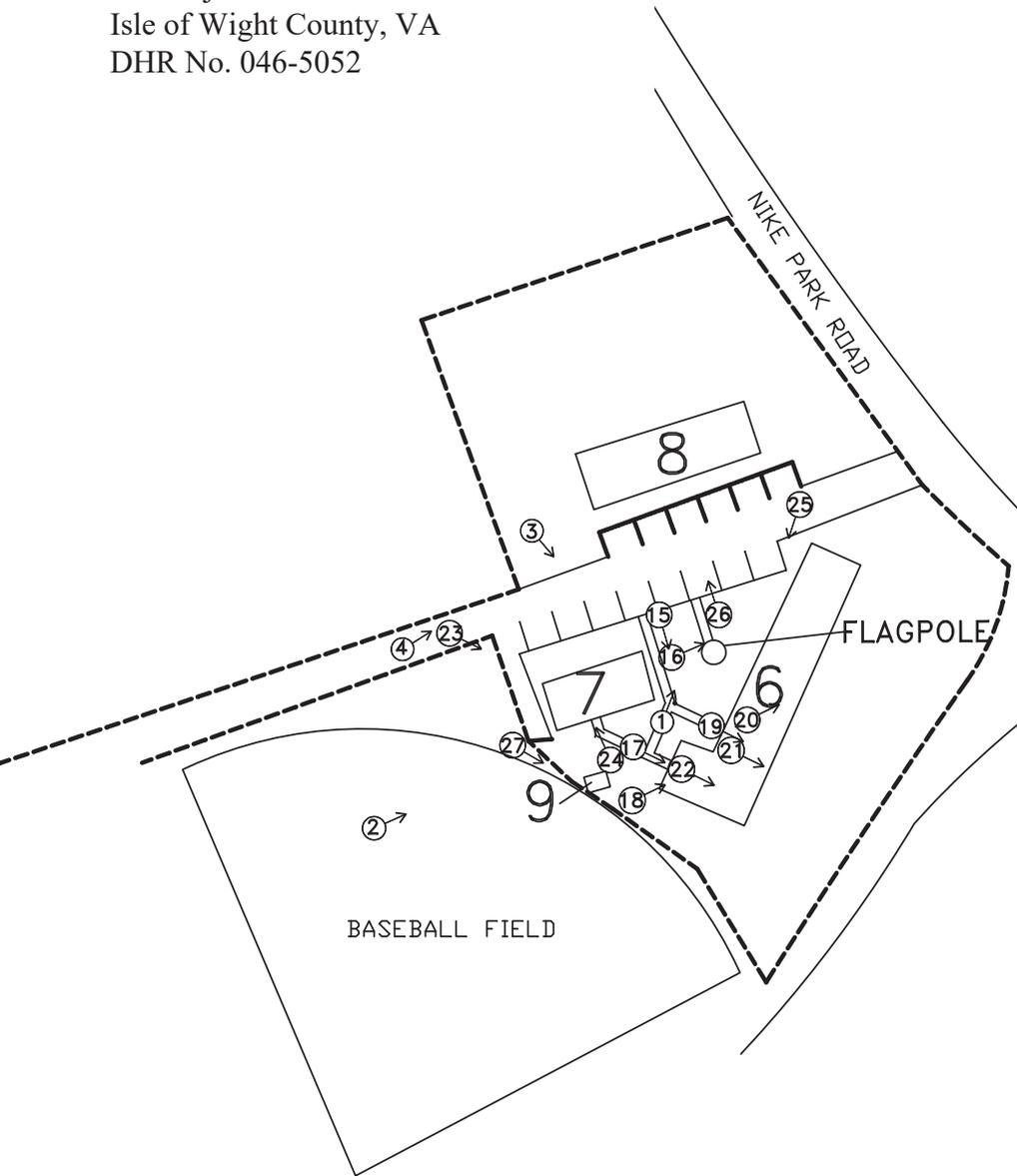
SKETCH MAP/PHOTO KEY (1 of 2)

Administrative Area

Nike-Ajax Missile Launch Site N-75L

Isle of Wight County, VA

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RESOURCE KEY & CONTRIBUTING STATUS	
6	BARRACKS AND HEADQUARTERS, C
7	MESS HALL, C
8	POST EXCHANGE, SUPPLY ROOM, AND CRAFTS SHOP, C
9	WELL PUMP HOUSE, C

LEGEND	
① →	PHOTOGRAPH LOCATION
—□—□—□—	UNDERGROUND MAGAZINES
- - - - -	EARTH WORKS
- - - - -	DISTRICT BOUNDARY
~~~~~	TREELINE



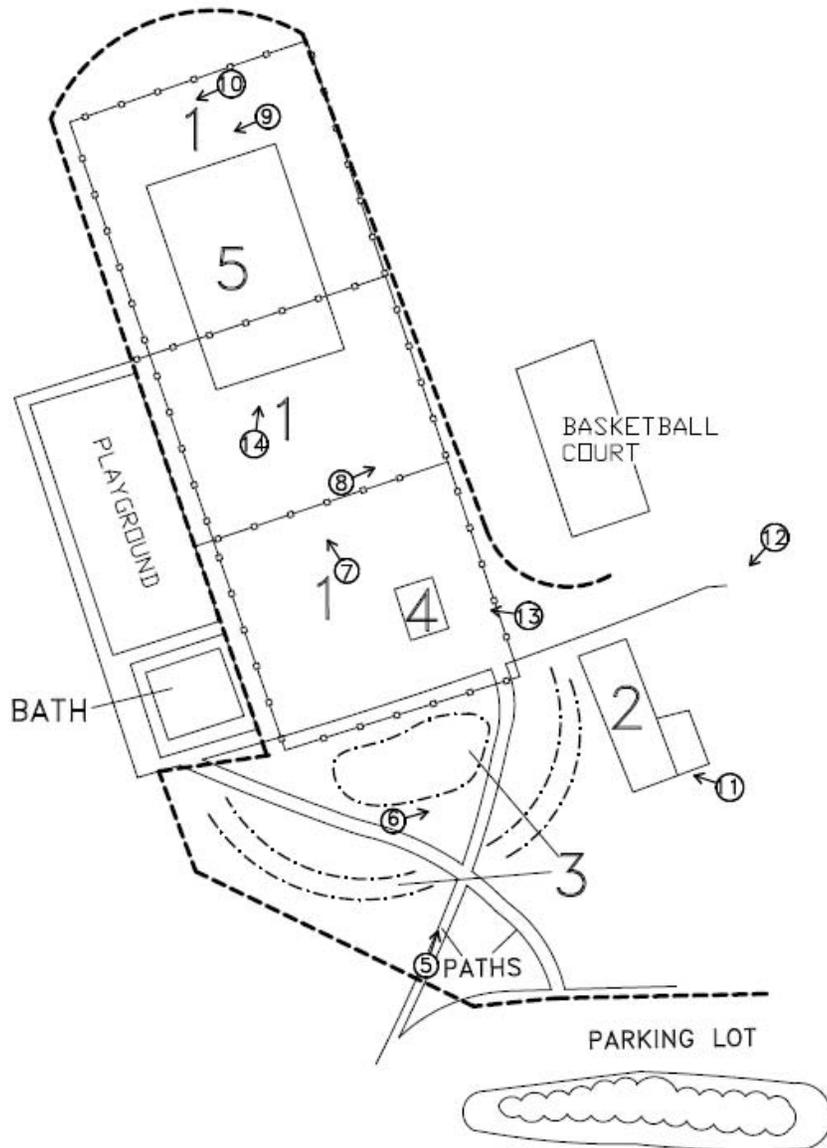
**SKETCH MAP/PHOTO KEY (2 of 2)**

**Launch Area**

Nike-Ajax Missile Launch Site N-75L

Isle of Wight County, VA

DHR No. 046-5052



**RESOURCE KEY & CONTRIBUTING STATUS**

- 1 UNDERGROUND MAGAZINES A, B, & C WITH EXTANT ABOVE-GROUND BLAST PLATES AND RAIL MOUNT PLATES, C
- 2 MISSILE TEST /ASSEMBLY BUILDING, C
- 3 PROTECTIVE BERMS, C
- 4 ABOVE-GROUND STAIRWELL, C
- 5 SKATE PARK (ATOP MAGAZINES), NC

**LEGEND**

- ① → PHOTOGRAPH LOCATION
- UNDERGROUND MAGAZINES
- ⋯ EARTH WORKS
- DISTRICT BOUNDARY
- ~~~~~ TREELINE





Nike-Ajax Missile Launch Site N-75L  
Isle of Wight County, VA  
DHR No. 046-5052

**AERIAL VIEW**

