MARYLAND HISTORICAL TRUST DETERMINATION OF ELIGIBILITY FORM

NR Eligible: yes____ no__

roperty Name: Naval Radio Transmitter Facility Annapolis Inventory Number: <u>AA-2127</u>
Address: Greenbury Point Road, Naval Academy North Seve City: Annapolis Zip Code: 21402
County: <u>Anne Arundel</u> USGS Topographic Map: <u>Annapolis</u>
Owner: United States Naval Academy Is the property being evaluated a district? X yes
Tax Parcel Number: N/A Tax Map Number: N/A Tax Account ID Number: N/A
Project: Greenbury Point Agency: FCC
Site visit by MHT staff: X no yes Name: Date:
Is the property is located within a historic district? yesno
If the property is within a district District Inventory Number:
NR-listed districtyes Eligible districtyes Name of District:
Preparer's Recommendation: Contributing resource yes no Non-contributing but eligible in another context yes
If the property is not within a district (or the property is a district) Preparer's Recommendation: EligibleyesX_no
Criteria: A B C D Considerations: A B C D E F G None
Documentation on the property/district is presented in: Architectural Inventory and Evaluation of Antenna Structures, Naval Radio Transmitter Facility (NRTF) Annapolis, Maryland, by Christopher Goodwin & Associates, Inc.
Description of Property and Eligibility Determination: (Use continuation sheet if necessary and attach map and photo)
The Naval Radio Transmitter Facility Annapolis (NRTF) was established in August 1918 with the construction of four 600-foot towers. The establishment of the facility in the midst of World War I was in response to the potential for Germany's disruption of communications between the United States and its allies, Britain and France. Over the course of the twentieth century, continuing into the early 1990s, the site was in constant use as a communications facility. It assumed special importance during World War II, and again during the height of the Cold War. Extensive building campaigns occurred in the early 1920s, the late 1930s, and in 1969. The station was closed in 1996. Ownership of the property has since been transferred to the United States Naval Academy, and the bulk of the facility is now a nature preserve. Tower #8 is now owned by Anne Arundel County.
MARYLAND HISTORICAL TRUST REVIEW
Eligibility recommended
Reviewer, NR Program Date

NR-ELIGIBILITY REVIEW FORM

Naval Radio Transmitter Facility Annapoli

Rage 2

house/transmitter building originally built in 1918, was determined ineligible, due to changes in function as well as additions and alterations over the course of the twentieth century. Also determined ineligible were Buildings 74, 76, and 77. Constructed during World War II, Building 74 is a primary school, Building 76 was a pumphouse, and Building 77 was a dam. Building 74 was determined ineligible due to extensive alterations, while Buildings 76 and 77 were determined to lack significance.

Since the inventory and evaluation conducted in 1996, many of the buildings and antennas in the NRTF district have been demolished, as part of the site's conversion into a nature preserve. Building 5, Building 60, Building 74, and Towers 7, 8, and 9 are the only remaining structures of those documented in 1996. The antennas of the "Marconi Triatic" array have been demolished, leaving only Building 60, the former transmitter building, now used as the headquarters of a construction unit. Towers 7, 8, and 9, built in 1937, stand alone at the tip of Greenbury Point.

The Naval Radio Transmitter Facility no longer meets National Register Criteria A or C, as it was evaluated to do in 1996. Importantly, the integrity of the district has been compromised by the demolition that has occurred since that time. Deprived of the majority of its antennas and associated buildings, the NRTF no longer conveys its long history as a naval communications facility. Buildings 5 and 74 were determined ineligible in 1996. The only remaining radio towers, 7, 8, &9, have no inherent significance. Building 60 no longer serves its function, and, additionally, now stands alone, thus depriving it of its previous associations. There is no remaining evidence of the advances in military technology that the complete facility demonstrated in 1996. The facility has no known historical association with significant persons, and thus fails to meet Criterion B. Criterion D was not evaluated for this study.

Prepared by: Gerald Maready/EHT Traceries, Inc.

Date Prepared:

8/29/2003





AA-2127



- AA.2127 Naval Radio Transmitter Facility Annapolis GreenSwry Point Road Anne Anundel County, Manyland Ett Tracenes, Inc.
- MD SHPO TOWERS 7, 8, 29, looking south

OF D



AA-2127 Naval Radio Transmitter Facility Annapolis Greenburn point Road Anne Annalel County, Manyland EHT Tracenies, Inc. 9/2003 MD SHOO towers 8 & 9, 100King south

2 of 10



AA-2127 Waval Radio Transmitter Facility Annapolis Greenbury point Road Anne Anindel County, Manjand Ett Tracenes, Inc. 9/2003 MO SHOO Towers 8 E9, 100 King south

3 of 10



AA-2127 Naval Radio Transmitter Facility Annapolis Greenbury Doint Road Anne Anundel County, Manyland Ett Tracevies, Inc. 9/2003 MD SHOO Tower 7, looking east

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AA.2127 Naval Radio Transmitter Facility Annapolis Greenbury point Road Anne Anundel County, Manyland EHT Tracevies, Inc 9 2003 MD SHOO 100King south, Tower 8 in Foreground, Tower 9 beyond

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AA 2127 Naval Radio Transmitter Facility Annapolis Greenbary point Road Anne Anundel County, Manjand Ett Traceries, Inc. 9/2003 MD Stpo Building 5, northeast corner, looking southeast

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AA-2127 Naval Radio Thansmitter Facility Annapolis Greenburg point Road Anne Anundel County, Manyland Ett Tracenies, Inc. 9/2003

MD SHPO

Building 60, east corner, looking northwest

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AH-2127 Naval Radio Transmitter Facility Annapolis Greenbury point Road Anne Anundel' County, Manyland Ett. Tracenes, Inc. 9/2003 MD SHOO Building 60, northeast elevation

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AA.2127 Naval Radio Transmitter Facility Annapolis Greenbury Point Road Anne Anundel County, Manyland ELT Tracenes, Inc. 9/2003 MD SHOO Building 60, north corner, looking southwest

9 of 10



AA-2127 Naval Radio Transmitter Facility Annapolis Greenbury point Road Anne Aninder County, Manyland Ett Tracenes, Inc. 9/2003 MD SHOO Building 74, looking northeast

0 of 10

INDIVIDUAL PROPERTY/DISTRICT MARYLAND HISTORICAL TRUST INTERNAL NR-ELIGIBILITY REVIEW FORM

	AA	-2127	
Property/District Name: <u>Naval Radio Transmitter Facility</u> Survey N			H
Project: Architectural Inventory and Evaluation Agency: N	lavy		
Site visit by MHT Staff: <u>x</u> no <u>y</u> es Name	Date _		· · · · · · · · · · · · · · · · · · ·
Eligibility recommended <u>x</u> Eligibility not recommended			
Criteria: <u>x</u> AB _x_CD Considerations:ABCI	DE	_FG _	None
Justification for decision: (Use continuation sheet if necessary a	nd attach	map)	

Based on the draft report, "Architectural Inventory and Evaluation of Antenna Structures, Naval Radio Transmitter Facility (NRTF) Annapolis, Maryland," prepared by R. Christopher & Associates and dated 5 Dec 1995, the World War II-era "Marconi" Triatic antenna and associated buildings 60, 68, and 69 are eligible for the National Register as a multiple component property. The antenna and buildings date to 1941-1942 and are historically associated with Naval communications support during World War II, thus meeting Criterion A. The antenna, a low-frequency transmitter, is also significant as an intact, distinguisable example of a World War II-era triatic anntenna system (Criterion C).

Documentation on the property/district is presented in: Architectural Inventory and Evaluation

of Antenna Structures, Naval Radio Transmitter Facility (NRTF), Annapolis, MD

Prepared by: <u>R. Christopher Goodwin & Associates</u>

David Blick/Jo Ellen Freese	<u>February 12, 1996</u>
Reviewer, Office of Preservation Services	Date
NR program concurrence:yes no not a	applicable
Chland fident	- 7eb. 13, 1996.
Reviewer, NR program	Date

Survey No. _ AA-2127

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

Eastern Shore	(all Eastern Shore counties, and Cecil) (Anne Arundel, Calvert, Charles,
Piedmont	Prince George's and St. Mary's) (Baltimore City, Baltimore, Carroll,
Western Maryland	Frederick, Harford, Howard, Montgomery) (Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

	Paleo-Indian	10000-7500 B.C.
	Early Archaic	7500-6000 B.C.
	Middle Archaic	6000-4000 B.C.
	Late Archaic	4000-2000 B.C.
	Early Woodland	2000-500 B.C.
	Middle Woodland	500 B.C A.D. 900
	Late Woodland/Archaic	A.D. 900-1600
	Contact and Settlement	A.D. 1570-1750
	Rural Agrarian Intensification	A.D. 1680-1815
	Agricultural-Industrial Transition	A.D. 1815-1870
	Industrial/Urban Dominance	A.D. 1870-1930
X	Modern Period	A.D. 1930-Present
	Unknown Period (prehistoric	historic)

III. Prehistoric Period Themes:

	Subsistence Settlement	Agriculture Architecture, Landscape Architecture,
	Political Demographic Religion Technology Environmental Adaptation	 and Community Planning Economic (Commercial and Industrial) Government/Law Military Religion Social/Educational/Cultural
×	Environmental Adaptation	 Social/Educational/Cultural Transportation

V. Resource Type:

Category: <u>Structure and build</u>	ings
Historic Environment: <u>_Rural</u>	
Historic Function(s) and Use(s):	Defense - Naval facility

IV. Historic Period Themes:

Known Design Source: Department of the Navy, Bureau of Yards and Docks



AA-2127

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AA- 2/27 United States Naval Academy, North Severn Anne Arundel County

Capsule Summary

The United States Naval Academy North Severn property is a 501 ac property located on Greenbury Peninsula on the north side of the Severn River across from the USNA campus (Figure 1). The property was formerly a part of the Naval Radio Transmitter Facility (NRTF) Annapolis, but was acquired by the Naval Academy in 1977 for use as a golf course. The North Sevem property consists of an 18-hole golf course and several buildings.

A 1980 National Architectural and Engineering Record (Kapsch 1980) inventory documented 6 buildings on the USNA, North Severn grounds. Buildings were evaluated according to the National Register Criteria for Evaluation (36 CFR 60.4), categorized according to their relative historical and architectural importance, and assigned one of five management categories. All of these buildings were assigned to Category IV and were considered to be of no historical value at the time.

As part of the 1996 update to the Naval Academy Historic Preservation Plan, Naval Academy buildings designated as Category IV and V and constructed before 1947 were surveyed and reevaluated for those qualities of significance and integrity identified in the *National Register of Historic Places Criteria for Evaluation* (36 CFR 60). Category I-III buildings are considered eligible for the National Register of Historic Places. Three buildings, NA74, NA76, NA77 are the focus of the current investigation (Figure 2).

The Primary School/Golf Clubhouse, Building NA74, consists of a two-story, wood frame core and several one-story additions, forming a shallow V-shaped building. The core was constructed in 1943 as a school, and retains its canopied double-door entrance with sidelight and transom. Other doors, as well as the windows, are replacement units. The building features a three-story square tower, which is situated at the apex of the V. The core was enlarged with a major one-story addition appended to the south side, and two smaller additions appended to the north side.

Building NA76 is a one-story, utilitarian pumphouse. The wood frame support building, which rests on a concrete foundation, is one-bay wide and two-bays deep, and terminates in a gable roof. Building NA77 is a concrete dam.

Buildings NA74, NA76, and NA77 bear no direct association with important themes and events embodied by the Naval Radio Transmitter Facility. Physically, they are isolated from the facility core and do not possess distinctive characteristics representative of a type, period, or method of construction. These buildings do not possess the qualities of significance or integrity for listing in the National Register of Historic Places.

Survey No.

Magi No.

AA-2127

MARYLAND INVENTORY OF Maryland Historical Trust State Historic Sites Inventory MARYLAND INVENTORY OF HISTORIC PROPERTIES

DOE __yes __no

1. Nan	Ne (indicate pr	eferred name)		
historic NA	VAL RADIO TRANSMITT	ER FACILITY ANNAPOL	IS	
and/or common		Y, NORTH SEVERN		
2. Loc	ation			
street & numbe	MARYLAND AVENU	E		
city, town A	NNAPOLIS	X_ vicinity of	congressional district	FOURTH
state MA	RYLAND	county	ANNE ARUNDEL	
3. Clas	sification			
Category district building(s) structure site object	Ownership X_public private both Public Acquisition in process being considered not_applicable	Status X_ occupied unoccupied work in progress Accessible _X_ yes: restricted yes: unrestricted no	Present Use agriculture commercial educational entertainment government industrial military	museum park private residence religious scientific transportation X other: RECREATIO
4. Own	er of Prope	rty (give names as	nd mailing addresses	s of <u>all</u> owners)
name SUI	PERINTENTDENT, U.S.	NAVAL ACADEMY		
street & number	MARYLAND AVENUE		telephone no	D.:
city, town AN	NAPOLIS	state	and zip code MARYI	AND
5. Loca	ation of Lega	al Descriptio		
courthouse, regi	stry of deeds, etc. ANNE A	RUNDEL COUNTY COURT	HOUSE	7.47
street & number	101 SOUTH STREE			liber
city, town	ANNAPOLIS			folio
	resentation	in Existing	state	MARYLAND
	,			-ys
	BUILDING INVENTORY	OF THE UNITED STAT	ES NAVAL ACADEMY	
date NOVEMBE		A the constant of a first of the constant of the	<u>X</u> federal state	
lepository for su	rvey records LIBRARY	OF CONGRESS, DIVISI	ON OF PRINTS AND PH	OTOGRAPHS
ity, town	WASHINGTON	·	state	DC

7. Description

Survey No. AA-2127

X good William V attacks	X_original site moved date of move
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Prepare both a summary paragraph and a general description of the resource and its various elements as it exists today.

SEE ATTACHED SHEETS

United States Naval Academy, North Severn Anne Arundel County Page 7.1

Summary Description

The U.S. Naval Academy North Severn property is located on the north side of the Severn River across from the Naval Academy proper. The 501-acre property, which consists of numerous buildings and an 18-hole golf course, previously was associated with the Naval Radio Transmitter Facility (NRTF) Annapolis until the Academy acquired the property in 1977. The focus of this recordation was the primary school/golf clubhouse, Building NA74, a pumphouse, Building NA76, and a dam, Building NA77, which are located on the extreme north side of the property, in proximity to the golf course.

The original core of the primary school/golf clubhouse is a two-story, wood frame school constructed in 1943. The structure subsequently was enlarged with several hipped roof, one-story additions. It currently is utilized as a golf clubhouse. The pumphouse is a one-by-two bay, wood frame utilitarian structure. It rests on a concrete foundation and terminates in a gable roof. Adjacent to the pumphouse is Building NA77, a concrete dam.

Description

Primary School/Golf Clubhouse (NA74)

The primary school/golf clubhouse, Building NA74, was constructed as a school in 1943. The wood frame, V-shaped building rises on a concrete foundation. A square, three-story tower is located at the apex of the V, separating two distinct blocks with different elevations. On the north side of the tower, the original two-story section terminates in a side-gable roof. On the south side of the tower, a one-story addition terminates in a hipped roof and incorporates an exposed basement.

Horizontal aluminum siding covers the original horizontal lapped wood siding. Generally, windows are double-hung, one-over-one-light metal sash units. The primary entrance, located to the west of the tower, contains wood double doors with sidelights and a transom. A canopy, supported by two wood columns, shelters the entrance. This building has been modified substantially through door and window changes and multiple additions, including the one-story south addition; two, one-story hipped roof additions appended to the north of the core section; and a rear screened-in porch extension.

Pumphouse and Dam (NA76 and NA77)

Building NA76 is a one-story, rectangular, wood frame pumphouse supported by a concrete foundation. The building is one-bay wide and two-bays deep, and terminates in a gable roof with overhanging eaves. A wood double door provides access to the building. The pumphouse is utilitarian and similar to other utilitarian structures operated by the U.S. Naval Academy. Building NA77 is a poured concrete dam, approximately 50' long. The concrete wall extends approximately 1' above the surface of the water and is level with the ground. A steel pipe railing extends the length of the structure. The dam contains a small reservoir on the Academy golf course.

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8. Significance

Survey No. AA-2127

Period pret 1400 1500 1500 1600 1800 1900	0-1499 archeology-historic 0-1599 agriculture 0-1699 architecture 0-1799 art 0-1899 commerce	community planning iands conservation iaw economics iitera education X milita engineering musi exploration/settlement philo	ry Sociai/ C humanitarian
Specific	; dates	Builder/Architect	
check:	Applicable Criteria: <u>X</u> A and/or Applicable Exception:	B <u>x</u> _CD ABCDEF	G
	Level of Significance: χ	nationalstatelocal	

Prepare both a summary paragraph of significance and a general statement of history and support.

SEE ATTACHED SHEETS

United States Naval Academy, North Severn Anne Arundel County Page 8.1

Significance Summary

The 501-ac North Severn property was formerly a portion of Naval Radio Transmitter Facility (NRTF) Annapolis, an important Naval communications center. Now owned by the Naval Academy, the property consists of several buildings and a golf course. Two buildings and one structure constructed during NRTF Annapolis' ownership of this site were documented: Buildings NA74, NA76, and NA77. The former is a former school that has been enlarged and converted into a golf clubhouse, and the latter are a utilitarian pumphouse and concrete dam. The conversion of Building NA74 from a school into a golf clubhouse was accomplished through several major additions and alterations.

Buildings NA74, NA76, and NA77 are examples of support structures that bear no direct association with important themes and events embodied by the Naval Radio Transmitter Facility. Physically, they are isolated from the facility core and do not possess distinctive characteristics representative of a type, period, or method of construction. These buildings do not possess the qualities of significance or integrity for listing in the National Register of Historic Places.

History and Support

North Severn History

European settlers are reported to have occupied the North Severn property as early as 1645. A group of Puritans, led by Richard Bennett, secured a land grant incorporating 250 ac that extended north from Greenbury Point to Mill Creek; an additional 250 ac grant incorporated the area north of Possum Point. The entire settlement was referred to as "Towne Point at Severn" (Luckenbach 1995:5). The property was subsequently divided into individual farmsteads for growing tobacco and raising livestock. The properties were eventually consolidated under a single owner, Nicholas Greenberry. In 1737, the property was acquired by Colonel Charles Hammond and combined with several other parcels to form the parcel known as "Hammond's Inheritance" (Beauregard et al. 1994:35).

Through the mid-nineteenth century, land use on the majority of Greenbury Neck remained relatively unchanged, including the Hammond's Inheritance tract, which remained as an undivided agricultural tract. Mid-nineteenth century U.S. Coastal Survey maps and land plats identify the northern section as the property of Lemuel Taylor (National Archives and Records Administration [NARA] 1844a, 1844b). The Taylor residence and farm complex, which has been associated with the Charles Hammond residence, was located overlooking Mill Creek on what is now the golf course on the Naval Academy, North Severn property (Beauregard et al. 1994:17). By the 1870s, the southern half of the North Severn property had been acquired by Col. Theodore Corner, whose residence and farm was located midway between Possum Point (Mill Creek) and Greenbury Point (Hopkins 1878).

In 1910, the Navy purchased a 180 ac property from Theodore Corner, which consisted at the time of four structures and what appeared to be an orchard (U.S. Naval Academy, Public Works Department [USNA, PWD] 1916). Initially, the Naval Academy operated a small dairy farm at Greenbury Point. However, this small operation failed to meet the needs of the Academy, and in 1913, the Navy moved the dairy farm to a much larger tract in Gambrills, Maryland. The Academy subsequently established a hog farm on the 100 ac southern portion of the former Corner parcel. This farm, which contained four dwellings, a milk house, cook house, a hog house, four barns, and a wagon shed, was established primarily as a means of disposing of garbage generated in the dining halls in Bancroft Hall, located on the Academy's campus (USNA, PWD 1918; Midshipmen's Store and Service Division 1929). The Academy

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United States Naval Academy, North Severn Anne Arundel County Page 8.2

prided itself on maintaining a scientific operation, complete with hog houses, breeding platforms, and builtin concrete troughs on the 10-ac developed portion of this facility. The remaining 90 ac were used for pasturage, livestock exercise lots, and alfalfa and corn production. None of the average 350 hogs raised on the farm were utilized to feed the corps of midshipmen. Most of the excess stock was sold to the stockyards in Baltimore, and some meat was sent to feed the unmarried employees at the dairy Farm in Gambrills (Midshipmen's Store and Service Division 1929:21, 26).

The northern portion of the former Corner farm was developed as a radio transmission facility. The Navy had began testing wireless apparatus as early as 1899, and in 1900, radio stations were established at Washington, D.C., and at the Naval Academy itself. During the ensuing 15 years, the Navy established additional naval shore and ship stations on both coasts, as well as its own radio research laboratory in Anacostia, and a high-power transmitting station at Arlington, Virginia (Gebhard 1979:8; Office of the Chief of Naval Operations 1961:3-4). With the advent of World War I, the Navy Department assumed the responsibility for establishing and operating a transatlantic communication system. This system included former commercial properties, transmitting facilities, receiving stations, testing facilities, communications schools, and additional high-power transmission stations on United States possessions in the Pacific and in the Caribbean (Best 1996). By the end of the war, the Navy's communications network included the highest powered arc transmitters in the United States, and was capable of communicating with Navy ships throughout the world (Office of the Chief of Naval Operations 1961:7-9; U.S. Navy Department, Bureau of Yards and Docks 1921:365).

The Naval Radio Transmitting Station [NAVRADSTA (T)] at Annapolis was established in 1917 to provide a secure communications link between the United States, France, and England. The Annapolis site was selected due to its remote location along the Chesapeake, as well as for its proximity to Washington (Nimitz Library, Miscellaneous Records of the Naval Station, Box No. 1, Folder No. 6; "Radio Transmitting Facility Annapolis, Maryland", n.p.). In 1918, the Navy entered into an agreement with France for the Navy to construct a high-power, long-wave station in France (Office of the Chief of Naval Operations 1961:9). NAVRADSTA (T) Annapolis, established in 1918 as a high-powered Very Low Frequency (VLF) station, was designed to operate in conjunction with the French transmitter.

The station was commissioned in August 1918 using two 500-kw Poulson Arc Converter VLF transmitters built by Federal Telegraph Company of San Francisco under a contract from the Bureau of Steam Engineering. Four 600-foot radio towers (Nos. 1-4), designed by the Austin Company, were erected as part of the original construction campaign (Nimitz Library, Miscellaneous Records of the Naval Station, Box No. 1, Folder No. 6; "Radio Transmitting Facility Annapolis, Maryland", n.p.). In addition to the towers, the transmission site also contained a power house and transmitter house, an operator's dwelling, Marine barracks, the residences of the officer in charge and the chief petty officer, a wharf at Possum Point, and a water-supply system (USNA, PWD 1918). The two 500-kw arcs installed in the operations building (Building 5) provided coverage for the Atlantic Ocean, England, and Europe. The station was completed by the summer of 1918, and the first message was sent to France in early September (Gebhard 1979:9). At the time of its completion, the Annapolis station was one of the most powerful in the United States and the world (U.S. Navy Department, Bureau of Yards and Docks 1921:365-366).

The transmitter facility was expanded and modified during the 1920s. In 1922, two additional towers (Nos. 5 and 6) were constructed (Best 1996). The Marine Barracks were modified to accommodate married enlisted men's quarters, and artesian wells, septic systems, and a technical support building were constructed. North of the fenced facility, the installation's wharves were expanded and several barns were

United States Naval Academy, North Severn Anne Arundel County Page 8.3

constructed (USNA, PWD 1928). The Naval Academy Hog Farm continued to occupy the land south of the transmission facility.

Development of the northern portion of North Sevem proceeded along a different track during this period. The former Taylor property went through a series of owners, including Thaddeus Davids, L. A. Palmer, and C. E. Remson, who acquired it in 1889 (Hopkins 1878; USNA, PWD 1934). An undated survey of this property showed that land use during this period was devoted to agriculture. Approximately 59 ac at the northernmost point of the tract remained wooded, while the remainder had been divided into fenced fields of 8-28 ac. Two peach orchards were present within the property, and a residential complex of three buildings was located overlooking Mill Creek. At the head of Carr's Creek near the southern boundary of the property, a small portion of land was designated as a "Mineyard;" this parcel may have been associated with the rifle ranges then under development on the neck of land between Carr's Creek and the Severn River (USNA, PWD n.d.). At some time prior to 1934, the Remson farm was acquired by the Greenbury Land and Development Company, presumably for development as a recreational or vacation complex. One small 7 ac parcel bordering Mill Creek was owned by the Acme Realty Company of Maryland (USNA, PWD 1934).

During the 1930s, the mission of NAVRADSTA Annapolis was expanded to include high frequency radio transmissions. During this period, High Frequency (HF), Medium Frequency (MF), and Low Frequency (LF) transmitters were added to support the original VLF arc converter transmitters (Nimitz Library, Miscellaneous Records of the Naval Station, Box No. 1, Folder No. 6). In 1937, the original VLF transmitter was replaced, and a new antenna system installed (Nimitz Library, Miscellaneous Records of the Naval Station, Frequency (Nimitz Library, Miscellaneous Records of the Naval Station, Box No. 1, Folder No. 6; "Radio Transmitting Facility Annapolis, Maryland", n.p.).

Other modifications included the addition of one new building at Possum Point and the extension of the unpaved Greenbury Point Road from the transmitter station complex to the southern tip of the point. In 1935, the Hog Farm was relocated to the northern portion of the tract, between the transmitter facility and the wharf at Possum Point (USNA, PWD 1935a, 1935b).

By 1940, the Navy's radio communication system encompassed a global chain of high, medium, and low frequency transmitting stations, receiving stations, and supplementary stations. The Bureau of Yards and Docks' construction program for radio stations in the continental United States during World War II was relatively modest, with allocations for buildings and structures totaling \$25,000,000. Additional funds allocated for new equipment under the Bureau of Ships were used to make improvements to both west and east coast facilities, including Annapolis. The major emphasis was directed towards expanding overseas radio facilities at Hawaii and other advanced bases (U.S. Navy Department, Bureau of Yards and Docks 1947:401).

World War II forced a tremendous expansion of the capacity of the Annapolis Station. During the war, NAVRADSTA Annapolis became the "primary transmitting station for communication command and control with deployed units" (Nimitz Library, Miscellaneous Records of the Naval Station, Box No. 1, Folder No. 6). The station's capacity was upgraded with the construction of 50 kw LF transmitters, and a continuous "modernization plan" was instituted. The station's pre-war complement of 24 radio operators was increased to 50 during the war, and the number of radio transmitters almost tripled (Office of the Chief of Naval Operations 1946:45-46). The facility also made minor infrastructure and support improvements with the construction of a pumphouse (NA76), a concrete dam (NA77) and reservoir, and school (NA74).

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United States Naval Academy, North Severn Anne Arundel County Page 8.4

Expansion of the facility's mission necessitated changes in land use at the installation. The former Remson Farm property bordering Mill Creek was acquired in 1942, and was utilized to accommodate the expanded transmission facilities, including five transmission towers, a receiving station, a bachelors' officers' quarters, and a golf course (USNA, PWD 1943a). On the transmitter parcel itself, the site of the former hog farm was developed for additional residential housing, and the wharf facilities at Possum Point apparently were dismantled (USNA, PWD 1943b).

The post World War II era was dominated by increased hostilities in Soviet-American relations and a proliferation of new technologies in communications. Developments at NAVRADSTA Annapolis responded to and reflected these outside influences. In August 1953, the Annapolis facility became part of the U.S. Naval Communications Station, Washington, D.C., which consisted of a communications center and two other radio stations (Cheltenham and Arlington). In 1955, microwave communications were installed between Cheltenham and Annapolis to replace telephone land lines.

Construction activity at Annapolis during the late 1940s and 1950s included a transmitter building (Building 128); a helix house; a battery house (Building 138); a Communications Control Link Building (Building 150); an AN/FRT-4 transmitter; an 800-foot vertical radiator tower; three AN/FRT-39 transmitters in Building 60; seven AN/FRT-25 transmitters; and, Communication Moon Relay (CMR) transmitter building (Building 151). A microwave duplex teletype circuit also was activated with Fort Ritchie, Maryland. In 1958, a 200-foot steel tower was erected at the north end of the Annapolis radio station, and a 190-foot steel tower was constructed adjacent to Building 60 (Nimitz Library, Miscellaneous Records of the Naval Station, Box No. 1, Folder No. 6).

The 1960s and 1970s were a dynamic period for Annapolis, as many of the earlier, now obsolete transmitter systems were upgraded to accommodate newer, state-of-the-art systems. The original 1918 radio towers (Contract 2650-1918) were demolished in 1969. Transmitters were removed or transferred to other facilities. The Model TBJ VLF system, installed in 1938, remained in continual use until 1969, when it was upgraded to a new system (Model AN/FRT-87 VLF) designed by Continental Electronics. The VLF system was capable of communicating with submerged submarine 50 to 60 feet below the surface (Nimitz Library, Miscellaneous Records of the Naval Station, Box No. 1, Folder No. 6; "Radio Transmitting Facility Annapolis, Maryland", n.p.; J. Schorpp, personal communication, 17 November 1995).

The station was renamed Naval Radio Transmitter Facility (NRTF) in 1974 and became a component of the Naval Communications Area Master Station (NAVCOMTELSTA), Atlantic. As a department of NAVCOMTELSTA, NRTF Annapolis was a vital link in the communications system that served the fleet and the Defense Communications Agency. The mission of NRTF Annapolis was to "operate and maintain those facilities, equipments, devices and systems necessary to provide reliable communications for the command, operational control and administration of the Naval establishment ashore and afloat, and to perform such other functions as may be directed by the Commanding Officer" (Naval Radio Transmitter Facility n.d.).

During the 1970s, the station's total acreage was reduced. When the requirement for HF operations was eliminated in 1976 with the introduction of satellite communications, the MF and HF transmitters at NRTF Annapolis were removed or transferred. In contrast, an upgrade of communications equipment, including state-of-the-art, computer-aided LF and VLF systems, was in place in the mid-1970s. These new systems provided communications to the Atlantic and Mediterranean fleet units.

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United States Naval Academy, North Severn Anne Arundel County Page 8.5

In 1988, the submarine base at Kings Bay, Georgia was linked with NRTF Annapolis, providing them with LF and VLF communications capabilities via Annapolis. In October 1988, a CVLF terminal was installed at NRTF, which was designed to meet the needs of submarine tenders, and NATO submarine and surface platforms (Nimitz Library, Miscellaneous Records of the Naval Station, Box No. 1, Folder No. 6).

Analysis

Buildings NA74, NA76, and NA77 of the Naval Academy, North Severn property were evaluated under both Criteria A and C of the National Register of Historic Places. Each building, once associated with NRTF Annapolis, was assessed for its role as support buildings for personnel involved in communications activities (Criterion A), and for its ability to represent a distinctive architectural type, period, or method of construction, i.e., an example of World War II permanent, military construction (Criterion C). Building NA74, the primary school/golf clubhouse, is in good condition. The building was modified with several additions, and its original building fabric was removed. Although the building retains integrity of location, the building lacks integrity of design, materials, workmanship, setting, feeling, and association due to the extensive modifications to the building. Therefore, it does not meet Criteria A or C.

Building NA76 is a pumphouse in good condition. It is a utilitarian structure similar to many other utilitarian structures of the same era operated by the Naval Academy. Its design is not distinctive, nor is its setting, feeling, or association to the World War II era particularly apparent. Building NA76 does not possess the qualities of significance or integrity to meet Criteria A and C. Building NA77 is a concrete dam in good condition. The structure's design is not distinctive, nor is its setting, feeling, or association to the World War II era particularly apparent. Building NA77 is a concrete dam in good condition. The structure's design is not distinctive, nor is its setting, feeling, or association to the World War II era particularly apparent. Building NA77 does not possess the qualities of significance or integrity to meet Criteria A and C.

Buildings NA74 and NA76 were inventoried as part of a 1996 update to the U.S. Naval Academy Historic Preservation Plan. In 1980, the National Architectural and Engineering Record conducted a survey and building inventory of 278 buildings at the Naval Academy. These buildings were categorized according to their relative architectural and historic importance utilizing Navy standards for treatment of historic properties. Buildings NA74 and NA76, originally categorized as possessing no historical importance, were reevaluated for those qualities of significance and integrity identified in the *National Register of Historic Places Criteria for Evaluation* (36 CFR 60). Archival and field investigations revealed that Buildings NA74 and NA76 do not possess the qualities of significance and/or integrity for listing in the National Register of Historic Places.

United States Naval Academy, North Severn Anne Arundel County

Maryland Comprehensive Historic Preservation Plan Data

Geographic Organization:

Western Shore

Chronological/Developmental Period(s):

Modern Period A.D. 1930-present

Historic Period Theme(s):

Military

Architecture

Resource Type:

Category: Buildings

Historic Environment: Rural

Historic Function and Use: Education/School

Known Design Source: None

SEE ATTACHED SHEETS

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		URTH STREET, SUI		elephone 301-694-0428
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	an Act of the Code of Maryl The survey an record purpos	Maryland Legis Land, Article 41 nd inventory are	lature to be f , Section 181 being prepare	officially created by ound in the Annotated KA, 1974 supplement. d for information and any infringement of

United States Naval Academy, North Severn Anne Arundel County Page 9.1

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National Archives and Records Administration

1844a [Map of] U.S. Coast Survey, Severn River Lower Part, Maryland. Preliminary version.

1844b [Map of] U.S. Coast Survey, Sevem River Lower Part, Maryland. Final version.

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n.d. "Radio Transmitting Facility Annapolis, Maryland"

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- 1916 Plan of Government Reservation on North Side of Severn River, near Annapolis, Maryland. Greenbury Neck and Rifle Ranges. Map #3312.
- 1918 Plan of Government Reservations on Northeast Bank of Severn River, Annapolis, Maryland. Map #3493.
- 1934 Right of Way from County Road to HP Radio Station. Department of Buildings and Grounds. Photostat. Map #25.
- 1935a Three 600 ft Towers, H.P. Radio Station. Buildings and Grounds, United States Naval Academy. Map #5386.
- 1935b Map of High Power Radio Station, Annapolis, Maryland, showing conditions on June 30, 1935. Map # 4697.
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Verbal boundary description and justification

The survey boundary includes the entire North Severn property defined by the USNA, North Severn real property records.

AA- 2127 U.S. Naval Academy, North Severn Anne Arundel County Resource Sketch Map



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AA- 2/27 U.S. Naval Academy, North Severn Anne Arundel County Locational Map: USGS Annapolis Quadrangle Map



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TRANSMITTAL LIST: RECORDATION OF THE MARCONI TRIATIC ARRAY

- <u>I.</u> Photographic Documentation
 - A. Slides were previously transmitted and have been accepted
 - B. Black and White Photographic Prints (20 incl. negatives)
 - 1. Bldg. # 60 SE Corner etc
 - 2. West Tower (# 66)
 - 3. Bldg. # 60 South Elevation, oblique view
 - 4. East Tower, inoperative, (# 64)
 - 5. North Tower (# 65)
 - 6. North Tower (# 65)
 - 7. Bldg. # 60 NE Corner
 - 8. West Tower (# 66)
 - 9. Bldg. # 60 East Elevation, oblique view
 - 10. South Tower (# 67)
 - 11. North Tower (# 65), rigging in foreground
 - 12. Bldg. # 60 East Elevation, entrance detail
 - 13. Bldg. # 60 West Elevation, oblique view; Helix House, Bldg. # 69 at left
 - 14. Bldg. # 60 NE Corner
 - 15. Machinery at base of West Tower (# 66)
 - 16. Helix House, Bldg. # 68
 - 17. Bldg. # 60 West Elevation; Helix House, Bldg. # 69 in foreground
 - 18. Helix House, Bldg. # 68
 - 19. Helix House, Bldg. # 68
 - 20. The Marconi Triatic Array complex from the north, incl. other towers

<u>II</u>. Written Documentation

- A. The final report entitled "Architectural Inventory and Evaluation of Antenna Structures, Naval Radio Transmitter Facility (NRTF), Annapolis, Maryland", R. Christopher Goodwin Assocs., Dec 5, 1995 was previously submitted and has been accepted.
- B. The original photographs used as illustrations in the above referenced report were lost and have been retaken as of Oct 13, 1999. As per the Index to Photographs in the Goodwin report, there are Photographs 1, 2, 3, 5, 6, 7, and 9 of 9 showing the structures present in 1995 which survive. Photographs 4 and 8 of 9 are the sites of Buildings # 49 and 151, which were demolished in the interim. Negatives are provided.
- III. Copies of Engineering Drawings from the Public Works Vault, Halligan Hall, U. S. Naval Academy
 - A. Bureau of Yards & Docks (Y&D) Drawing 147550 "300 Ft. Radio Towers, General Plans & Elevations, Location Plan" U. S. Naval Radio Station, Annapolis, MD, app. 9-17-40
 - B. Y & D Drawing 147551 "300 Ft. Radio Towers, Details at Panel Points 1-M,N-N,O-O,O-2, PQ", U. S. Naval Radio Station, Annapolis, MD, app. 9-17-40
 - C. Y & D Drawing 147552 "300 Ft. Radio Towers, Details at Panels: H-K-L-M", U. S. Naval Radio Station, Annapolis, MD, app. 9-17-40
 - D. Y & D Drawing 147554 "300 Ft. Radio Towers, Details at Panels A,C,D,E,F,J", U. S. Naval Radio Station, Annapolis, MD, app.9-17-40
 - E. Y & D Drawing 14555 "300 Ft. Radio Towers, Foundations for Sheaves & Winches, Foundation for Tower No. 4", U. S. Naval Radio Station, Annapolis, MD, app.9-17-40
 - F. Y & D Drawing 147556 "300 Ft. Radio Towers, Plans & Details, Electrical Work", U. S. Naval Radio Station, Annapolis, MD, app. 9-17-40
 - G. Y & D Drawing 153812 "TCG Helix Houses A & B, Plot Foundation and Floor Plans" High Power Radio Station, Annapolis, MD, app. 2-14-42

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 H. Y & D Drawing 153813 "TCG Helix Houses A&B, Elevations & Sections, Roof Roofing Plan", High Power Radio Station, Annapolis, MD, app. 2-14-41

 I. Y & D Drawing 153814 "TCG Helix Houses, Grounding Plan, Entrance, Entrance Doors, Ladder and Miscellaneous Details", High Power Radio Station, Annapolis, MD, app. 2-14-41



2 17530-67 NHT NO. AA-2127 NAVAL RADIO STATION ANNAPOLIS Anne trundel County A. Domald LAWRENCE October 1999 VIEW: NES AND W elev. of TPRANSmitter Blog. (BLDG 5) AND HELIX HOUSE in Background 1/9



2-87830-49 MHT NO. AA-2127 NAVAL RADIO STATION ANNAPOLIS Anne Arundel County A. DONALD LAWKER CE October 1999 View: NW SAND E elev. OF Helix Honse with BUDGS IN BACKGround 69



MHT NO. AA-2127 NAVAL RADIO STATION ANNAPOLIS ANNE Arundel County A. DONALD LAWRENCE View: NW, 600-foot Steel RADIO Tower (1937) with Newer Guide Towers in, BACKground 3/9



2-17130-53 MHT NO. AA-2127 NAVAL PADIO Station Annapolis ANNE Arundel County A. DONALD LAWLENCE October 1999 View: GW, Nor E elev of site of Helix House Foundation (BLDG 49 DEMO (isited)



NHT NO. AA-2127 NAVAL RADIO STATION ANNAPOLIS ANNE Arundel County A. DOPACO LAWRENCE October 1999 VIEW! SE, NOW elev of LE TRANSmitter BUDG (BUDG 60)

1.87830/45



1-8785013 MHT NO. AA-2127 NAVAL RADIO STATION ANNApolis ANNE Arundel County A. DONALD LAWRENCE October 1999 View: S, Detatl of Main ENTINUCE BLOG 60 0/9



MHT No. AA-2127 NAVA RADIO STATION ANNAPOLIS ANNE Arundel County A. DONALD LAWRENCE October 1999 VIEW: W, SW CONNER BLDG 60

1-8-18-11



2.87830-52 MAT No. AA-2127 NAVAL PADIO Station Annapolis ANDE Arundel County A. DONALD LAWYENCE October 1999 LIEW: N. Ear Selev. of Communication MOON RELAY BDG site Foundation BIG (BLDG ISI Demolisted)



MHT NO. AA-201 NAVAL RADIO STATION ANNapolic, ANNE Arundel County A. DONALD LAWRENCE View: S, Coucal 05×6× Monopole ANTENNA (INOPERATIVE) 9/9



1-87830 17 MHT NO. AA-2127 NAVAL RADIO STATION ANNAPOLIS Anne Arunde Conny A. DONALA LAURENCE October 1999 View, 5, ELLEN, ME CONNER 1/20 BARD. 60 N TOWER (65)



1-87870/50 MHT No. 44-2127 NAVAL PADIO STATION Annapolis, ANNE Avunde County A. DONALD LAWRENCE October 1999 View: W Tower (66) E ELEU. For ground st Corner of BLDG GO complex 0/20



MA NO. AA-2127 NAVAL RADIO STATION ANNAGOlis Anne Arundel County A. DONALD LAWRENCES Octoper 1999 View: 5 elev BLOG 60 N Tower (65) Background 3/20



1-87830/44 MH NO. AA -2127 NAVAL RADIO Station ANNAPOLIS ANNE Arande Consty A. Donald (superice) October 1999 View N Tower (65) NE CONVER BLOG(60) Forground 5/20


MAT NO. AA-2127 NAVA RADIO StatiON Annopolis Anne Arunde / County A. PONALD LAWRENCE October 1999 (Iewi & Tower (64) (INOPERATIVE) SE COMPER 07 BLDG 298 4/20

12



1-87230/es MHT AD AA \$127 NAVAL RADIO GLATION ADNADO/is ANNE Arurdel County A. Donald LAWRENCE October 1999 View: N Tower (65) Geler BDG (257) torground



MAR NO. AA.2127 NAVAL 24010 STATION Annapolis, Anne Avandel County A. DONALD LAWRENCE October 1999 View: N eter, NE corner BLPG 60. Brekgronned 7/20 W Tower (66)



1-87830 /12 MATNO. AA-2127 NAVAL RADIO Station Prinapolis, Anne Annald County A. DONALD LAWRENC October 1999 View: W Tower (60 Selev Forground NW CONNER OF BiDG 60 Complex 0/20



1-8783012 MAT No. AA-2127 NAVAL RODID STATION ANNAPOLIS Anne Arundel County A. Donato CAMPENCE October 1999 View: ENE clev, BLDG 60 9/10 STOWER BACKgrowd (65)



1-87230/100 MAT NO. AA-2127 NAVAL RADIO Station ANONAPOlis, ANNE Arundel Convity. A. DONALD LAWRENCE October 1999 View: 5 Tower (67) Eeled Forground BLDG. 298 10/20



MHT No. AA-2127 NAVAL PADO STATION ANNAPOTIS Anne Arandel County A. DONAD LAWRENCE Optober 1999 View: NTower (65) Seleu, Foreground MIS. Riggings 1/20



1-87830/3 MHT No AA-2127 NAVAL BLADIO Station Annapolis ANNE AVUNCLE(County Ai DONALD LAWRENCE October 1999 View: E eleve DETAIL BUDG 60 DOORWAY

12/20



1-873,50/11 MHT NO. AA - 2127 NAVAL PADIO Station ANNApolis ANNE AVINDE | County A. DONNED LAWFENCE October 1999 View: W, SW. Corner BLDG 60 13/20 HELIX HOUSE (69) BIELEV SOU END



1-87830 145

MHT No #A-2127 NAUAL PRODID Station Annapolis ANNC Arundel County A. Donald LAWDENCE October 1999 VIEW! NE Convert of BLODG 60 complex

14/20



MHT NO AA - 2127 NAVAL RADIO STATION ANNApolis Anne Arandel Comply A. DONALD LAWRENCE View Machinery e BASC OF W Tower (#66)

15/20

7

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MHT No AA-2127 NAVAL BADIO STATION ANNAPOLIS Anne Arundel County AN DOWALD LAWRENCE October 1999 View: BLDG#07, Helix House SE Corner, pole AND Equipment. 16/20



2-87830-45 NHT NO AA-2127 NAVAL RADIO STATION ANNAPO/S ANNE Arandel County A. Donald AWRENCE October 1999 View; Weley, BLDG. 60 E Tower IN BACKGround (inoperative) Forground 12/20 HELIX House (69) WELEV. CENTER



287-10-+7 MHT NO #A-2127 NAVAL PADIO Station Annapolis Anne Arundel County A. DonAld LAWPERCE Detoper 1999 View. \$10 #68, HELIX House E TOWER TN BACKGROUND (IN OPERATIVE) 18/20



2-87170-41 MAT No. AA -2127 NAVAL PADIO STATION ANNAPOLIS ANDE Arundel County A. DONALD LAWRENCE View: BDG #68 HELIX HOUSE E, SE CLEV. BASE OF W TOWER (#11) 19/20



2-87830-55 MHT No. AA-2127 NAVAL RADIO GEATION ANNAPOLIS Arone Arandel County A. JONALD LAWRENCE October 1999 View N View of complex Through golt conner towerst TONEVS: L(64) CLOS BACKGIOUND CLOT R(6) 20/20

INDEX TO PHOTOGRAPHS

TT

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Photographer:	Lex F. Campbell R. Christopher Goodwin & Associates, Inc.
1 of 3	View of Building NA74 looking north.
2 of 3	View of Building NA76 looking northwest.
3 of 3	View of Building NA77 looking northwest.



AA-2127 USNA, NONTH SEVERN ANNE AFUNDES L. CAMPBELL DCT. 1996 MO JAPO IV, BUILDING NATH, FRONT & STOR ELEMATIC 1 of 3



AA-2127

USILA, NORTH SEVERN ANNE ADUNDEL L. CAMPBELL OCT. 1996 MIDSHPO

NW, BUILDING MARTIG, FRONT ASFDE





AA-2127 USNA, NORTH SEVERNU ANNE ARUNDEL L. CAMPBELL DCT 1996 MO SHO MU, BUILDING NA771, 3 of 3

12 17 12