MARYLAND HISTORICAL TRUST
DETERMINATION OF ELIGIBILITY FORM

SM-903

Property Name: NATS Landplane Concrete Hangar 305; NAS Patuxent Inventory Number: ~~Contrib.Res.~~

Address: NATS Landplane Concrete Hangar 305; NAS Patuxent Historic district: ___ yes X no

City: Naval Air Station Patuxent Rive Zip Code: 20670 County: Saint Marys

USGS Quadrangle(s): Solomons Island

Property Owner: US Navy / Naval Air Station Patuxent River Tax Account ID Number: ___

Tax Map Parcel Number(s): ___ Tax Map Number: ___

Project: ___ Agency: NAVY

Agency Prepared By: The Louis Berger Group, Inc.

Preparer's Name: Richard M. Casella Date Prepared: 5/1/1999

Documentation is presented in: MIHP form.

Preparer's Eligibility Recommendation: X Eligibility recommended ___ Eligibility not recommended

Criteria: X A ___ B X C ___ D Considerations: ___ A ___ B ___ C ___ D ___ E ___ F ___ G

Complete if the property is a contributing or non-contributing resource to a NR district/property:

Name of the District/Property: Patuxent River N.A.S.

Inventory Number: SM-357 Eligible: ___ yes Listed: ___ yes

Site visit by MHT Staf ___ yes ___ no Name: ___ Date: ___

Description of Property and Justification: *(Please attach map and photo)*

Hangar 305 is a double-bay arch-roof concrete hangar measuring 413x250' overall. The two hangar bays each have a clear span of 160', and are separated and flanked by two-story concrete lean-tos 31' in width. The concrete frame lean-tos have inset brick wall panels, which carry the window openings. The window openings originally formed a continuous band of multi-pane windows but have been brick infilled to form fewer and smaller openings with 1/1 insulated-glass replacement windows. Exterior concrete portions of the hangar, including the exposed arch-ribs that protrude above the roof, arch-spandrel end-walls, and framing members of the lean-tos and hangar doors, have been covered with corrugated metal siding to prevent deterioration from weathering. At each end of the hangar are large multi-leaf sliding doors, which can be drawn open to a position in front of the lean-tos.

NATS Landplane Concrete Hangar 305 served a central role for the mission of the NATS at NAS Patuxent River and is therefore eligible for the National Register under Criterion A. Hangar 305 also meets national Register Criterion C in that it embodies distinctive characteristics of a type, period, and method of construction. The hangar is an early and important example of post-tensioned thin-shell concrete technology, also known as stressed-skin, and of concrete hangar engineering in American. It is an example of a patented technology that was widely used after the war for domestic architecture primarily as a result of its

MARYLAND HISTORICAL TRUST REVIE

Eligibility recommended X **Eligibility not recommended** ___

Criteria: X A ___ B X C ___ D **Considerations:** ___ A ___ B ___ C ___ D ___ E ___ F ___ G

MHT Comments:

6/22/05

Reviewer, Office of Preservation Services **Date**

Reviewer, National Register Program 6/21/05 **Date**

acceptance and successful use by the Navy for hangars at NAS Patuxent River and elsewhere.

See MIHP form for more information.

MARYLAND HISTORICAL TRUST REVIE

Eligibility recommended _____ **Eligibility not recommended** _____

Criteria: ___A ___B ___C ___D **Considerations:** ___A ___B ___C ___D ___E ___F ___G

MHT Comments:

_____ _____

Reviewer, Office of Preservation Services **Date**

_____ _____

Reviewer, National Register Program **Date**

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

OMB No. 10024-0018

SM-903

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES REGISTRATION FORM

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

1. Name of Property

historic name NATS Landplane Concrete Hangar 305, NAS Patuxent River ~~SM-357~~

other names/site number _____

2. Location

street & number _____ not for publication ____

city or town Naval Air Station Patuxent River vicinity X

state Maryland code MD county St. Mary's code 037 zip code 20670

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ____ 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 ____ meets ____ does not meet the National Register Criteria. I recommend that this property be considered significant ____ nationally ____ statewide ____ locally.
(____ See continuation sheet for additional comments.)

_____ _____
Signature of certifying official Date

_____
State or Federal agency and bureau

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

Signature of commenting or other official _____ Date _____

State or Federal agency and bureau _____

4. National Park Service Certification

I, hereby certify that this property is:

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

___ removed from the National Register _____ _____

___ other (explain): _____

_____ _____
Signature of the Keeper Date of Action

5. Classification

Ownership of Property
(Check as many boxes as apply)
___ private
___ public-local
___ public-State
_X_ public-Federal

Category of Property
(Check only one box)
_X_ building(s)
___ district
___ site
___ structure
___ object

Number of Resources within Property

Contributing	Noncontributing	
1	____	buildings
____	____	sites
____	____	structures
____	____	objects
1	____	Total

SM-903

Number of contributing resources previously listed in the National Register: 0

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

Naval Air Station Patuxent River, Maryland: Historic and Architectural Resources

6. Function or Use

Historic Functions (Enter categories from instructions)

Cat:	Sub:
DEFENSE	Naval facility

Current Functions (Enter categories from instructions)

Cat:	Sub:
DEFENSE	Naval facility

7. Description

Architectural Classification (Enter categories from instructions):

Other: 20th Century military
20th Century industrial

Materials (Enter categories from instructions)

foundation	Concrete
roof	Concrete
walls	Concrete, brick, metal siding
other	

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

8. Statement of Significance

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

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

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

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

Areas of Significance (Enter categories from instructions):

Architecture
Engineering
Military

SM-903

Period of Significance

1942-1945

Significant Dates

Significant Person (Complete if Criterion B is marked above)

N/A

Cultural Affiliation N/A

Architect/Builder U. S. Navy, Bureau of Yards and Docks

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

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9. Major Bibliographical References

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

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 # _____

Primary Location of Additional Data

_X_ State Historic Preservation Office
___ Other State agency
_X_ Federal agency
___ Local government
___ University
___ Other

Name of repository Naval Air Station Patuxent River, Maryland, Public Works Office

SM-903

10. Geographical Data

Acreage of Property: 4 acres

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

	Zone	Easting	Northing		Zone	Easting	Northing
1	18	374000	4237800	3			
2				4			

___ See continuation sheet.

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.)

See Continuation Sheet

Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)

See Continuation Sheet

11. Form Prepared By

name/title Richard M. Casella

organization The Louis Berger Group, Inc. date May 1999

street & number 120 Halsted Street telephone 973-678-3427

city or town East Orange state NJ zip code 07019

Additional Documentation

(Submit the following items with the completed form:)

Continuation Sheets

Maps: A USGS map (7.5 or 15 minute series) indicating the property's location.
A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs: Representative black and white photographs of the property.

Additional items (Check with the SHPO or FPO for any additional items)

USDI/NPS NRHP Registration Form
NATS Landplane Concrete Hangar 305, NAS Patuxent River
St. Mary's County, Maryland

SM-903

Property Owner

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

name Naval Air Station Patuxent River

street & number _____ telephone _____

city or town Patuxent River state MD zip code 20670

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. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including the 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 Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503.

DESCRIPTION

Hangar 305 is a double-bay arch-roof concrete hangar measuring 413x250' overall. The two hangar bays each have a clear span of 160', and are separated and flanked by two-story concrete lean-tos 31' in width. The concrete frame lean-tos have inset brick wall panels, which carry the window openings. The window openings originally formed a continuous band of multi-pane windows but have been brick infilled to form fewer and smaller openings with 1/1 insulated-glass replacement windows. Exterior concrete portions of the hangar, including the exposed arch-ribs that protrude above the roof, arch-spandrel end-walls, and framing members of the lean-tos and hangar doors, have been covered with corrugated metal siding to prevent deterioration from weathering. At each end of the hangar are large multi-leaf sliding doors, which can be drawn open to a position in front of the lean-tos.

The architectural plan of the hangar was fixed by Navy standards for wood hangars. The interiors of the lean-tos were originally divided into workshops, laboratories, and offices. Many of the lab and shop spaces in the lean-tos have been remodeled to accommodate office-only uses. The hangar bays remain open and continue to function in their original role.

Each elliptical-arch roof rises 55' above the hangar floor and consists of a thin-shell arch slab, 3-1/2" thick, supported by exterior arch ribs spaced 35'-6" on centers. The ribs vary between 7' and 8' in height and from 2' to 2'-9" in thickness. The ends of each arch-rib are tied together with two 1-9/16" galvanized wire cables that run through the floor slab. The cables were designed to take 200,000 pounds of horizontal thrust.

Public Works Department records indicate that this hangar and the five others like it built at the same time were almost immediately plagued with water infiltration after their construction. Poor performance of built-up roofing systems, and the failure of flashing at vertical transitional joints and connections between dissimilar materials, all required major repairs as early as 1946 and 1951. A metal barrel covering with batten seams was designed to further protect the thin concrete shell structure, and was applied universally to all hangar roofs in 1960. During 1973 renovations, cracking and spalling concrete received extensive repair, and the concrete intermediate arches were coated with 1"-thick polyurethane foam insulation and protective coating. In 1983 the wood clerestory windows, located at the hangar arched end-walls, were removed and replaced with insulated metal panels. Corrugated metal siding, the treatment selected as the best method for shielding concrete surfaces from deteriorating natural forces, was applied to Hangar 305 during 1994.

SIGNIFICANCE SUMMARY

Evaluation of the NATS Landplane Concrete Hangar 305 for National Register eligibility is based upon criteria outlined in the National Register of Historic Places Multiple Property Documentation Form *Naval Air Station, Patuxent River, Maryland, Historic and Architectural Resources*, under the property type "Air Transport Facilities." The NATS Landplane Concrete Hangar 305 is significant under both the historic contexts *Naval Air Station, Patuxent River and Webster Field during WW II, 1941-1945*, and *Naval Air Station, Patuxent River and Webster Field during the Early Cold War Period, 1945-1965,* as defined in the Multiple Property Documentation study.

The Naval Air Transport Service (NATS) is directly associated with the mission of NAS Patuxent River as the location of an East Coast terminal for Navy air transport or air logistical services. This role as an air transport terminal formed an important element in the original design of the Naval Air Station as it was developed in the winter of 1941-1942 as a result of America's entry into the war. During the period 1943-1948 NAS Patuxent River served as the headquarters location for the Atlantic Wing of the NATS, which supervised air transport operations throughout the Atlantic coasts of the Americas, Europe, and Africa. NAS Patuxent River resumed a role as the headquarters location for air logistics formations during the period 1949-1957, this time on the national level for the Fleet Logistics Air Wing (FLAW). Navy air logistics units remained stationed at NAS Patuxent River until 1968. NATS Landplane Concrete Hangar 305 served a central role for the mission of the NATS at NAS Patuxent River and is therefore eligible for the National Register under Criterion A.

Hanger 305 also meets National Register Criterion C in that it embodies distinctive characteristics of a type, period, and method of construction. The hangar is an early and important example of post-tensioned thin-shell concrete technology, also known as stressed-skin, and of concrete hangar engineering in America. It is an example of a patented technology that was widely used after the war for domestic architecture primarily as a result of its acceptance and successful use by the Navy for hangars at NAS Patuxent River and elsewhere.

RESOURCE HISTORY AND HISTORIC CONTEXT

Hangar 305 is one of six double-barrel concrete hangars of identical design (Hangars 109, 110, 111, 115, 305, 306) built on the Patuxent River installation from April 1943 to April 1944. As directed by the Navy Department Bureau of Aeronautics in January 1942, three seaplane and five landplane hangars were planned by the Navy Department Bureau of Yards and Docks for NAS Patuxent River in order to accomplish its early command mission as a centralized testing and evaluation facility and East Coast center for air transport services. In general, wartime material shortages necessitated departure from Navy-approved timber and steel truss hangar designs, forcing the Bureau of Yards and Docks to recognize the merits of tied concrete shell roof systems for structures requiring large clear spans.

In early October 1942 the Officer-in-Charge of Construction had recommended that the Seaplane Hangar (Building 110), to be occupied by the Aircraft Experimental and Development Squadron, should be built of ZD-type concrete construction, a patented innovation imported from Germany in the 1930s. The Officer-in-Charge asserted that the cost and speed of this building technology could be compared to that of the wooden arch form to be employed in the Armament Test Seaplane Hangar (201). This proposal was approved by the Bureau of Yards and Docks, and on

October 18, 1942, the Bureau hired Roberts and Schaefer Company of Chicago to provide complete architectural and engineering services for the design and construction of a full double-barrel reinforced concrete hangar. Roberts and Shaeffer performed this work under contract NOy 5827 for the total amount of $85,850.

Construction of the first concrete hangar began on January 1, 1943, and was completed on July 31, 1943 by the Corbetta Construction Company. During construction, on March 18, the Navy revised the contract with the Corbetta Company to build the five remaining concrete hangars along with four heating plants to serve them. Construction on these additional hangars got underway between March 30 and May 6, and all were completed between September 20 and December 8, 1943. This work was completed under contract NOy 5869 for the total amount of $5,608,531.71.

Although the Navy was the first to build concrete arch-roof hangars in the United States, the idea originated in France during World War I and was perfected in Germany during the 1920s. The French built a concrete hangar with an arched slab roof and exterior stiffening ribs at Istres in 1916. This hangar had a span of 151' and a smooth interior that allowed easy movement of the form-work, but the roof slab was not a stressed-skin design. That development originated with two German engineers, Dr. Dischinger and Dr. Bauersfeld, who first applied it to domed roofs for planetariums and patented the design method under the name Zeiss-Dywidag System (hence Z-D system) in 1928. The patent covered a structural system defined by a post-tensioned concrete skin, or shell, with intermediate arched beams and stiffening ribs. Soon after, Dr. Dischinger joined the engineering firm of Dyckerhoff and Widmann of Wiesbaden, which purchased the patent. In 1932 the patent was licensed to the American architectural-engineering firm, Roberts & Schaefer Co. of Chicago, Illinois, with the condition that design direction be performed by German engineer Anton Tedesko. Tedesko emigrated to the United States and joined the staff of the American firm for this stated purpose. During the 1930s the Z-D system was utilized for non-military facilities in America, including the Hayden Planetarium dome in New York City (1935) and the Hershey Sports Arena in Hershey, Pennsylvania (1937).

In the early stages of war, the Bureau of Yards and Docks contracted Roberts & Schaefer Co. to apply the proven design principles of the Z-D system to a large-scale monolithic concrete aircraft hangar supporting naval operations at San Diego, California, and subsequently contracted for full architectural-engineering services to design an improved, modest version for a prototype hangar suitable for the specific needs of NAS Patuxent River. Project engineers Robert Zaborowski and Otto Gruenwald designed the concrete hangars in response to the Navy's demands for accelerated construction, economic use of materials, and structural integrity. Independent structural sections, characteristic of the Z-D system, served to expedite construction and insured that the aircraft hangar would survive a dreaded air strike. Using rolling sections of wood falsework , parabolic arch concrete hangar sections 160' in width were formed and poured in increments. The ends of the exterior ribs or arched beams, from which the 3-1/2" thin-shell concrete roof was hung, were then drawn together with steel cables run under the hangar floor, using 50-ton jacks. This tensioned the ribs like a bow, compressing and stressing the roof skin. The clever use of salvaged falsework, shipped by barge from the construction site of a concrete arch hangar at the Naval Aircraft Factory in Philadelphia, reduced the average time required for individual hangar construction to six months, 17 days.

When NATS began operations at NAS Patuxent River in July 1943, its facilities consisted of the NATS Administration Building (304) and Seaplane Hangar (301), situated on the Station's West Patuxent Seaplane Basin. The NATS complex

expanded with a utility building (307) in October 1943 and two concrete-built Landplane Hangars (305 and 306) that December. The complex was completed with the construction of the NATS Terminal Building (310) in May 1944.

The NATS was responsible for the movement of men, equipment, and supplies by air, primarily for the Navy and Marine Corps but also for the Army and civilian government agencies when necessary. Three NATS squadrons, VR-1, VR-8, and VR-9, served at NAS Patuxent River, which was also the location of the headquarters for the NATS Command, Atlantic Wing. Created at the onset of the American commitment to the war, when for practical purposes the U.S. Navy lacked any air transport capability, NATS built an air fleet and a system of routes that contributed considerably to the Allied victory. The services of NATS were frequently used by the Army, other agencies of the U.S. government, and the armed services of other Allies.

NATS was the brainchild of Clarence H. Schildhauer, a Naval Reserve officer and aeronautics professional who had formerly worked for Pan American Airways. During the period 1939-1941 Schildhauer was sufficiently moved by the possible threat of U.S. involvement in the ongoing world war to consider the potential role for air transport in U.S. naval operations should America enter the war. Prior to 1942, the U.S. Navy had no airborne component in the logistical network that supplied its far-flung installations around the Atlantic and Pacific basins, apart from a relatively few semi-converted bombers flown by the Navy's utility squadrons. The utility squadrons carried a small volume of cargo between stateside supply depots and the operating units of the Atlantic and Pacific fleets. The potential wartime need to move vital commodities across the ocean with the greatest possible dispatch had not been seriously addressed by American naval planners during the 1930s.

During July-September 1941 Schildhauer set before the Navy an organizational scheme for an airborne cargo and personnel transport service that was based on the international operations of the country's airline companies. The Navy responded to Commander Schildhauer's proposal in November 1941 by calling him to active duty with the Naval Transport Service, then a section of the Ship Movements Division, with authorization to begin his plan's implementation. On December 12, 1941, with the war just five days old for America, the Chief of Naval Operations approved the establishment of the Naval Air Transport Service as a branch of the Naval Transport Service, with Schildhauer as Officer-in-Charge. The initial hurdle that NATS had to clear in order to attain full-scale operation, that of acquiring an adequate complement of suitable aircraft, must have seemed insurmountable. There were only 16 transport airplanes in existence in the United States, among both seaplanes and landplanes, that were capable of transoceanic flight, with another three seaplanes then under construction. All of these craft were in private hands. The same day it established NATS, the Office of the Chief of Naval Operations also moved to induct these transport planes, along with their civilian crews, into naval service.

During 1944, that all-important year in which the Allies consolidated their ascendant position and began their drive toward the Axis homelands, NATS overall grew from 8,060 personnel and 179 aircraft to 20,545 personnel and 352 aircraft. A highpoint in the wartime service of VR-1 came in May 1944, in response to an emergency request from the Chief of Naval Operations. Eight Skymaster transports, making a total of 16 transatlantic flights over a nine-day period, moved 83 tons of vital minesweeping equipment to England for the Normandy invasion on June 6.

April 1945 saw the return of the "mighty Mars" seaplane to NAS Patuxent River from the Pacific, once again in the care of VR-8. The Navy had decided to acquire additional Martin Mars planes (designated JRM aircraft) and to give the great flying boat a prominent role in its air transport establishment. VR-8 was reassigned the first Mars to use in training additional crews to fly the great craft, and a new U-slip type of floating dock designed to handle the Mars was constructed at NAS Patuxent River. In August 1945 with Germany defeated and transatlantic transport a reduced priority, VR-9 was transferred to the Olathe, Kansas, NATS station.

MARYLAND COMPREHENSIVE PRESERVATION PLAN DATA

Geographic Organization: Western Shore

Chronological/Developmental Period(s): Modern Period

Prehistoric/Historic Period Theme(s): Military

Resource Type:

Category: Building

Historic Environment: Suburban

Historic Function(s) and Use(s): Military Facility

Known Design Source: U.S. Navy, Bureau of Yards and Docks

MAJOR BIBLIOGRAPHICAL REFERENCES

Louis Berger & Associates, Inc.
1999 *Naval Air Station, Patuxent River, Maryland, Historic and Architectural Resources*. National Register of Historic Places Multiple Property Documentation Form (draft final). Prepared for Naval Air Station Patuxent River, Maryland, by Louis Berger and Associates, Inc., East Orange, New Jersey.

NAS Patuxent River Public Works Department
various *Map of Naval Air Station, Patuxent River, Md., Showing Conditions on ...* [various dates 1941-present]. Plans on file, Public Works Department, NAS Patuxent River, Maryland.

various *Facility Record Cards and Building Drawings, Naval Air Station, Patuxent River, Md.* Records and drawings on file, Drawing Vault, Public Works Department, NAS Patuxent River, Maryland.

Naval Historical Center
1945 *Naval Air Station Patuxent River Command History, 1942-45*. Prepared October 1945. On file, Office of Naval Aviation History, Naval Historical Center, Washington Navy Yard, Washington, D.C.

various *U.S. Naval Air Test Center-NAS Patuxent River Command Histories* [various dates]. On file, Office of Naval Aviation History, Naval Historical Center, Washington Navy Yard, Washington, D.C.

Tedesko, Anton
1937 Large Concrete Shell Roof Covers Ice Arena. *Engineering News-Record* April 8:505-510.

1941 Wide-Span Hangars for the U.S. Navy. *Civil Engineering* December:697-700.

U.S. Geological Survey
1987 *Solomons Island, MD*. 7.5-Minute Series (Topographic) Quadrangle. U.S. Geological Survey, Reston, Virginia.

Zaborowski, Robert
1944 Monolithic Concrete Seaplane Hangars. *Civil Engineering* August:355-358.

GEOGRAPHICAL DATA

Verbal Boundary Description:

The National Register boundaries for the NATS Landplane Concrete Hangar 305 are depicted on the attached figure.

Boundary Justification

These boundaries encompass the entire area within which the operations of the NATS Landplane Concrete Hangar 305 operated during the resource's period of significance.

The following items apply to all five photographs:

Property Name: NATS Landplane Concrete Hangar 305, Naval Air Station Patuxent River

Location: NAS Patuxent River, St. Mary's County, Maryland

Photographer: Richard M. Casella

Date of Photograph: 1999

Location of Negatives: NAS Patuxent River, Patuxent River, Maryland 20670

Individual Photograph Identifications:

1 Hangar, east and south elevations, looking northwest

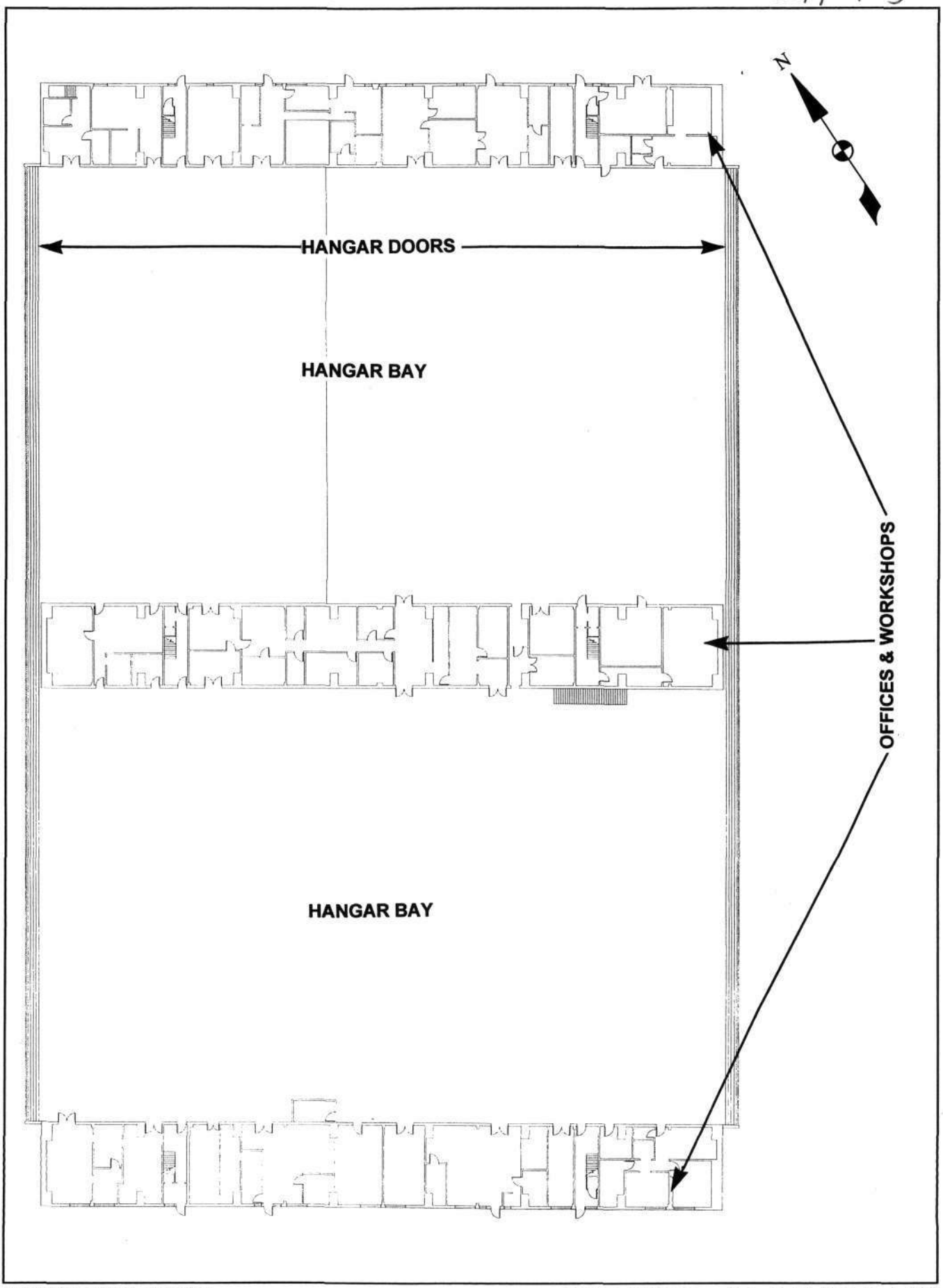
2 West elevation, looking northeast

3 West elevation, close-up, looking northeast

4 Detail of south elevation, east end, looking north

5 Detail of south elevation, west end, looking north

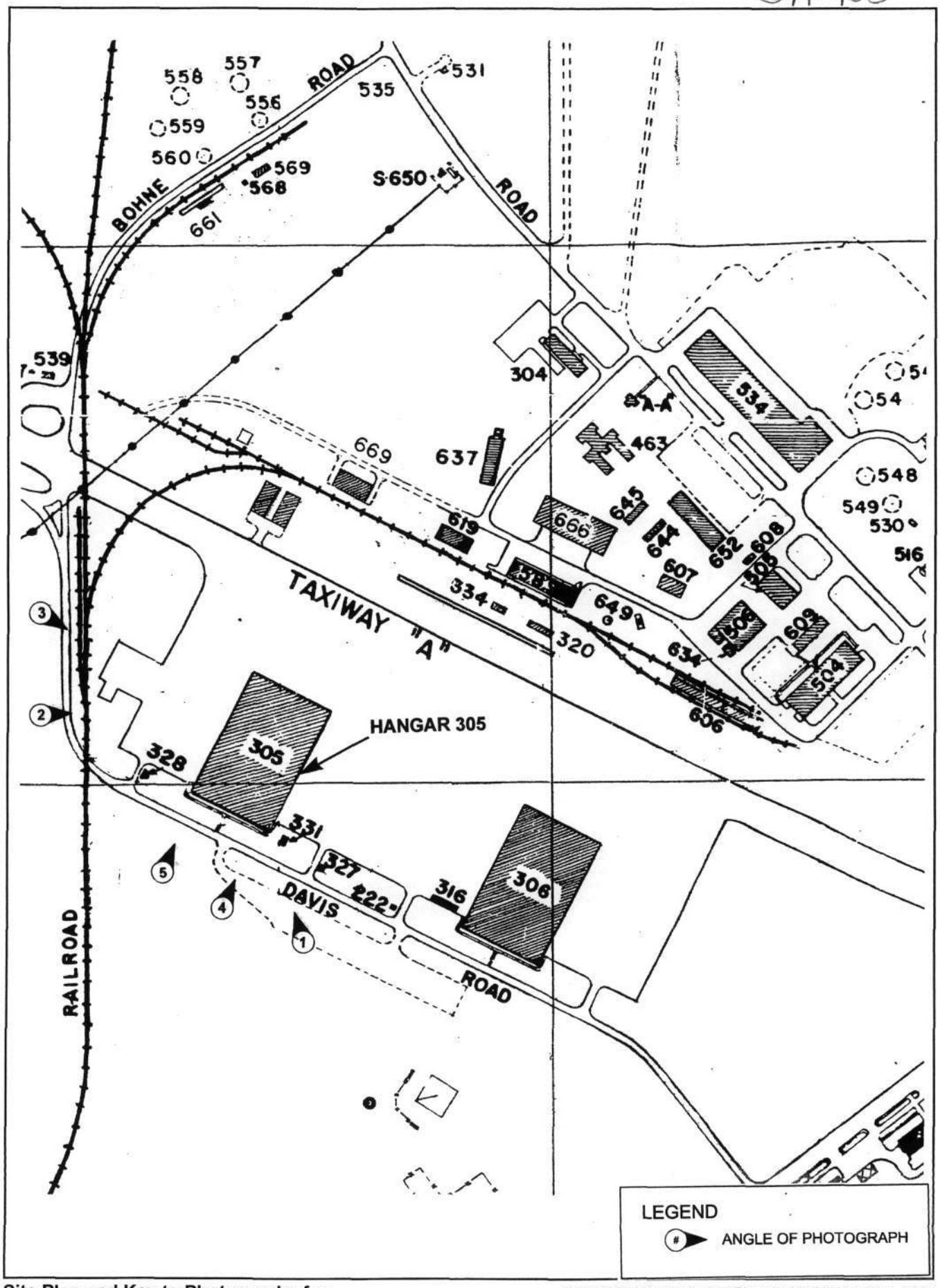
SM-903



First Floor Plan of NATS
Landplane Concrete Hangar 305

SOURCE: NAS Patuxent River Public Works Dept. 1999

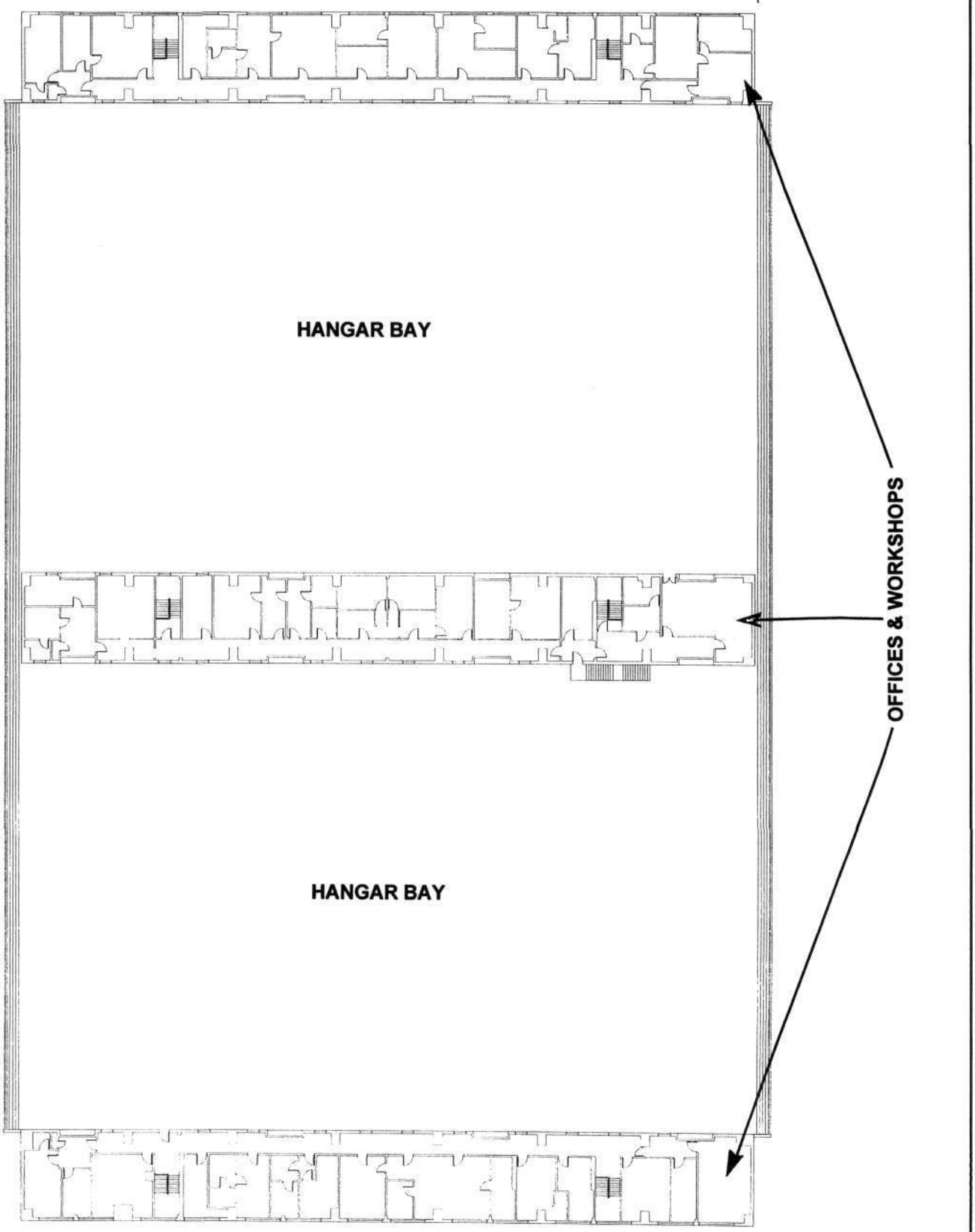
SM-903



Site Plan and Key to Photographs for NATS Landplane Concrete Hangar 305

SOURCE: NAS Patuxent River Public Works Dept. 1995

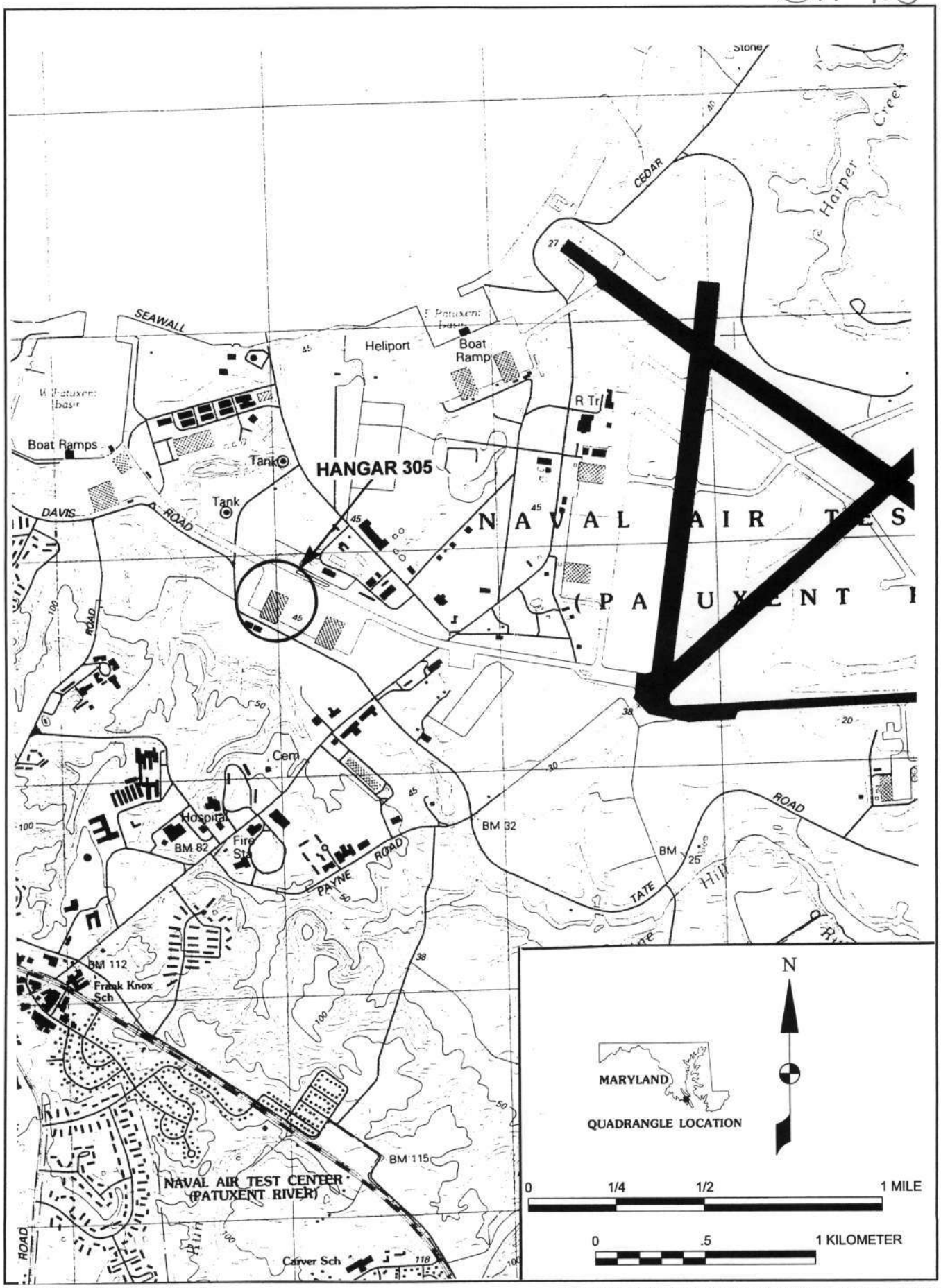
SM-903



Second Floor Plan of NATS
Landplane Concrete Hangar 305

SOURCE: NAS Patuxent River Public Works Dept. 1999

SM-903



Location Map for NATS
Landplane Concrete Hangar 305

SOURCE: USGS Quadrangle, Solomons Island, MD 1987

NATS LANDPLANE CONCRETE HANGAR 305
NAVAL AIR STATION PATUXENT RIVER MARYLAND
ST MARYS COUNTY MARYLAND

1 of 5
SM-903

NAT'S LANDPLANE CONCRETE HANGAR 305
NAVAL AIR STATION PATUXENT RIVER
ST MARY'S COUNTY MARYLAND

#2 of 5

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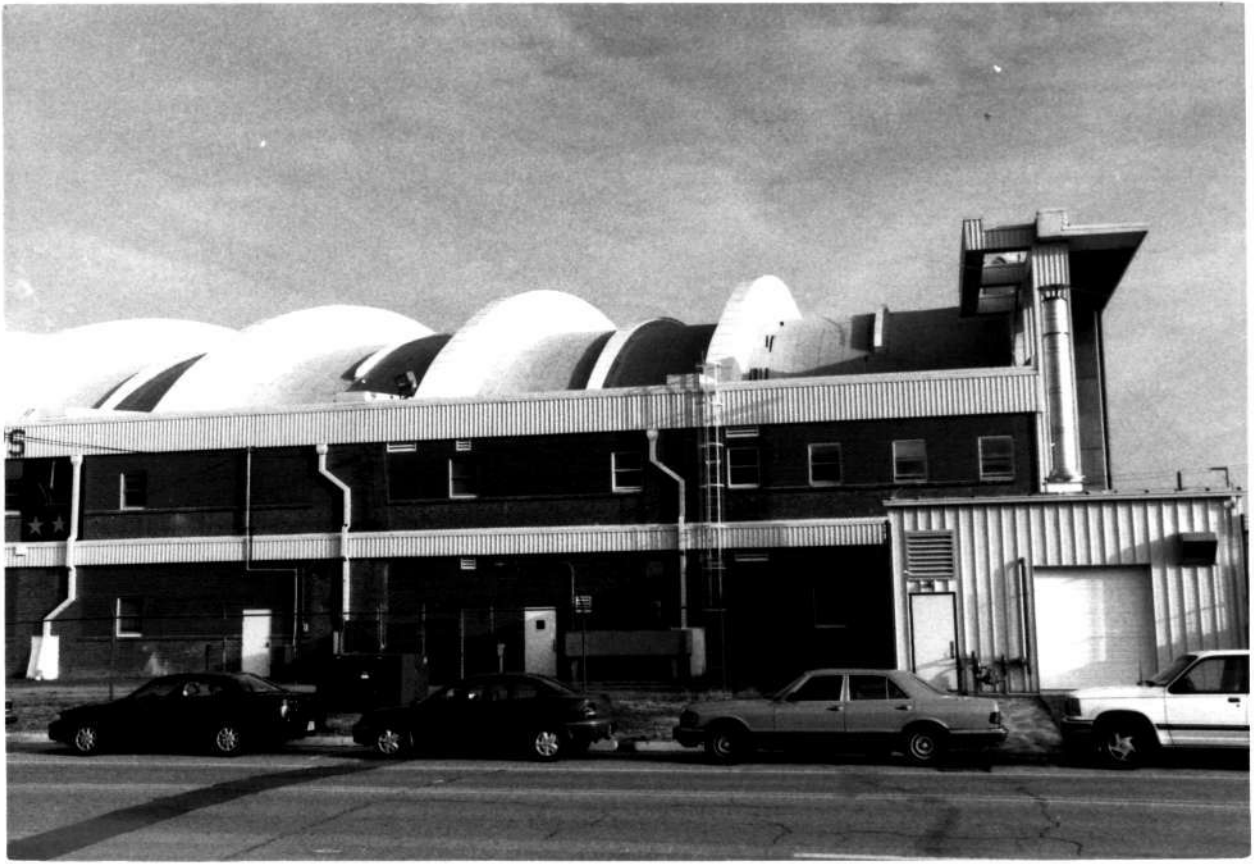
NATS LANDPLANE CONCRETE HANGAR 305
NAVAL AIR STATION PATUXENT RIVER
ST MARYS COUNTY MARYLAND

#3 of 5

SM-903



NAES LANDPLANE CONCRETE HANGAR 305
NAVAL AIR STATION PATUXENT RIVER
ST MARYS COUNTY MARYLAND

#4 of 5
SM-903


VX-1 PIONEERS

NATS LANDPLANE CONCRETE HANGAR 305
NAVAL AIR STATION PATUXENT RIVER
ST MARYS COUNTY MARYLAND

#5 of 5
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