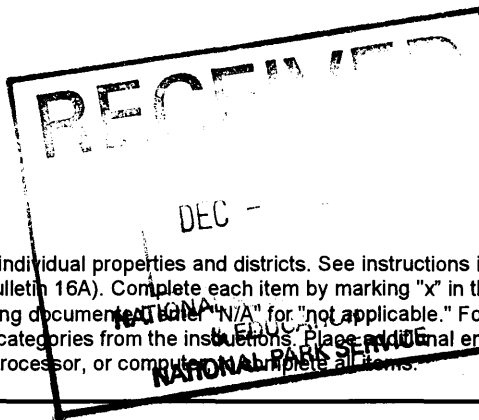


United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form



1602

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 an 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 U-1105 "Black Panther"

other name/site number 18ST636

2. Location

street & number Potomac River not for publication

city or town Piney Point vicinity

state Maryland code MD county St. Mary's code 037 zip code 20674

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, 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.)

Elaine L. Munsell 10/5/2000
Signature of certifying official/Title Date

Federal Preservation Officer DEPT OF THE NAVY
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] 7-21-00
Signature of certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the 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

Patrick Andrews 1/11/01

U-1105 "Black Panther"
Name of Property

St. Mary's County, MD
County and State

5. Classification

Ownership of Property
(check as many boxes as apply)

- public-local
- private
- public-State
- public-Federal

Category of Property
(check only one box)

- district
- building(s)
- site
- structure
- object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
1	0	buildings
_____	_____	sites
_____	_____	structures
_____	_____	objects
1	0	Total

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

n/a

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Function
(Enter categories from instructions)

DEFENSE/Naval facility/submarine

Current Function
(Enter categories from instructions)

OTHER/Shipwreck

7. Description

Architectural Classification
(Enter categories from instructions)

OTHER/Submarine Type VIIC

Materials
(Enter categories from instructions)

foundation n/a

walls steel; rubber

roof n/a

other n/a

Narrative Description

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

U-1105 "Black Panther"
Name of Property

St. Mary's County, MD
County and State

8. Description

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.)

Property is:

- 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 of age or achieved significance within the past 50 years.

Narrative Statement of Significance

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

9. Major Bibliographical References

Bibliography

(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 # _____

Areas of Significance

(enter categories from instructions)

Military

Maritime History

Engineering

Period of Significance

1944-49

Significant Dates

1944 constructed and launched

1949 sunk

Significant Persons

(Complete if Criterion B is marked above)

n/a

Cultural Affiliation

n/a

Architect/Builder

Nordseewerke Shipyard, Emden, Germany

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other: Name of repository: _____

U-1105 "Black Panther"
Name of Property

St. Mary's County, MD
County and State

10. Geographical Data

Acreage of Property less than one acre

UTM References Piney Point MD-VA quad
(Place additional UTM references on a continuation sheet.)

1 18 363910 4221850
Zone Easting Northing

2
Zone Easting Northing

3
Zone Easting Northing

4
Zone Easting Northing

See continuation sheet

Verbal Boundary Description

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

Boundary Justification

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

11. Form Prepared By

name/title Susan B. M. Langley, State Underwater Archaeologist

organization Maryland Historical Trust

date May 23, 2000

street & number 100 Community Place, 3rd floor

telephone (410) 514-7662

city or town Crownsville

state MD zip code 21032-2023

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)

Property Owner

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

name/title U. S. Navy, c/o Dr. William Dudley, Director, Naval Historical Center

street & number Building 57, Washington Navy Yard, 901 M. Street SE

telephone (202) 433-2210

city or town Washington

state DC zip code 20374-5060

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 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 Reduction Project (1024-0018), Washington, DC 20503.

**NATIONAL REGISTER OF HISTORIC PLACES
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The U-1105 is a Type VIIC German Submarine. Standard design of a Type VIIC class is 67.1 meters in length with a beam of 6.2 m and a displacement of 761 tons (surface) and 865 tons (submerged). It has two 1400 hp diesel engines and a top speed of 17.0 knots on the surface with a cruising range of 8500 sea miles at 10 knots, which allowed a range sufficient to permit limited operations in American waters. Each boat was armed with 14 torpedoes, an 8.8 cm deck gun and one 2 cm gun on the conning tower and was manned by a crew of 44. However, design changes were implemented in 1942 and 1943. The deck gun was removed and variations in bridge configurations included heavier anti-aircraft weapons and a larger number of these. The design of the U-1105 reflects many of the late war modifications making it a technologically unique specimen. In addition to a schnorkel for ventilation and recharging batteries while still submerged, it also carried other technological innovations including a GHG Balkon (Group Listening Apparatus Balcony); an advanced passive sonar system. This pod housed an array of 24 crystal receivers and allowed the sonar operator to determine the direction and location of other vessels as far away as 12-15 km. Very few Type VIIC vessels received this and only late in the war. The Black Panther also sported a Hohentweil U radar unit in the conning tower used to detect low-flying aircraft up to 20 km away with an accuracy of 1-2°. This unit is still in place on the vessel. Of course, the most unusual attribute is the rubber sheathing on the hull to deflect sonar. Of the 660 Type VIIC vessels constructed during the war, only 10 received this treatment and the U-1105 is the only known remaining example (Keatts and Farr 1994; Pohuski and Shomette 1994; Stern 1991; Westwood 1984). In general, very few German submarines survived WWII, most were lost in action and many crews scuttled their craft rather than surrender them. Most of the submarines that surrendered were deliberately sunk by the British in the Atlantic north of Ireland, in an operation called "Deadlight," and those that remained were divided between the Allies for study with the provision that they be destroyed afterward (Preston 1978). The fate of many of the vessels captured by the Soviet Union in the Baltic remains unknown due to the onset of the Cold War.

It was launched April 20, 1944 from the Nordseewerke shipyard in Emden, Germany. It was nicknamed the Black Panther for the experimental rubber sheathing which coated its hull. Formally commissioned into the Kriegsmarine June 3, 1944, it saw action only once on April 27, 1945 when, off Ireland, it fired on and damaged the HMS Redmill, a Captain Class frigate, with a loss of 32 lives. On May 4, 1945, it received the order to surrender which it did six days later at Loch Eriboll, Scotland. Later that month the U-1105 was turned over to the U.S. Navy for study and

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experimentation in the United States. It arrived in Portsmouth New Hampshire early in 1946.

After examination by the Naval Research laboratory, Washington D.C. and the Massachusetts Institute of Technology Acoustic Laboratory, Cambridge, Massachusetts it was selected for testing of demolition equipment. The Black Panther was towed to Solomons Island, Maryland where the Explosive ordnance Disposal Team from the Naval Powder Factory at Indian Head removed the vessel to deep water off Point No Point and sank it in August 1948. The following year the U-1105 was raised by pontoon and towed to a Potomac River anchorage off Piney Point, St. Mary's County, Maryland. There a new 250 lb. HBX-2 charge was attached under the forward edge of the conning tower and on September 19, 1949 at 12:30 p.m., the charge was detonated, splitting the pressure hull and sinking the Black Panther in 20 seconds to a depth of 85 feet.

The vessel was relocated by a team of sport divers in 1985. It sits upright on the bottom with an 8-12 inch wide crack in the pressure hull from the deck to the keel just forward of the conning tower. The rubberized hull is otherwise intact although the interior is filled with silt from the opening of the hatches by the discovering divers. The Maryland Historical Trust has since had the U.S. Navy seal all hatches to prevent accidental entrapment.

The bottom sediments of the Potomac River in the environs of the site are very silty and the vessel has settled into the silt to the level of the decking. Seasonally the silt covers the decks and then re-exposes them; scours away from the sides and then recovers the sides of the hull. An analogy to desert sands which sweep away from and then re-inter sites is apt. The visibility is generally poor to nil (0-6 ft), with the clearer water occurring generally in the winter months. Currents and tidal pull are strong; it is considered an advanced dive.

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The U-1105 was constructed and launched in April, 1944 in response to increasing U-boat losses. It was one of only 10 vessels to be treated using the Alberich process of rubber sheathing the hull (Keatts and Farr 1994; Pohuski and Shomette 1994; Stern 1991; Westwood 1984). Not only does this vessel represent the only known example of this early stealth technology but its study directly provided the data that led to subsequent treatment of American and Soviet submarines. Today all submarines are covered with an anechoic coating to reduce their sonar signature; a direct outgrowth of the Alberich process (Friedman 1981; Pohuski and Shomette 1994).

It is also significant as a salient representative of post-World War II, early cold War era naval defense testing in southern Maryland. Proximity to Washington's Naval Research Laboratory and to numerous military bases such as those at Lexington Park, Webster Field, Solomons, Indian Head as well as Dahlgren and Alexandria, Virginia facilitated the testing program in this region. In the Patuxent River are the remains of an American submarine and other debris such as dummy mines. These are less accessible than the U-1105, partly due to greater depth and currents in the constricted part of the river in which they lie and partly because activities in the area are restricted by the Navy. Testing in the Potomac was nearly as extensive. In the cove between Piney Point and St. George's Island, torpedoes and torpedo launching craft were tested by military staff based at what is now the merchant marine Harry Lundeberg School of Seamanship. Range markers are still visible on St. George's Island and the majority of houses in the area were originally housing for enlisted men and officers involved in the submarine research program.

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At the time of discovery, numerous fixtures and fittings were still present on the U-1105; including lights, hatch covers and the sky and attack periscopes as well as the rubber coating. Items such as these do not exist on any other submarine which can be reached by sport divers. Many of these portable artifacts from the exterior and some from inside as well were removed by the discovering divers, but have subsequently been returned and conserved. Some are on display at the Piney point Lighthouse Museum. Openings which could prove hazardous were sealed to prevent further penetration of the hull and to protect any remaining artifacts in the vessel. By and large the Navy removed all items of commercial or scientific value in 1948-49, but souvenir hunters will take anything related to U-boats either for personal interest or because of the considerable commercial interest in such momentos; the discovering divers took flat metal rings that encircled gauges and switches that had the German words for "on-off" and "light-dark" printed on them.

The U-1105 qualifies for inclusion on the National Register of Historic places under Criteria A and C. With respect to criterion A, the period of significance is more the Cold War weapons testing era than WWII. Although it does represent a unique example of early stealth technology, its activities and impact during the War were limited. Its innovative and study value pertain more to the post-war period and for Maryland its importance is tied most closely to the military study taking place along the Potomac corridor during the Cold War.

Criterion C is applicable because of the unique construction and technological innovations involved. Also because of the contribution that study of the vessel contributed to subsequent, even current, submarine hull treatments.

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Major Bibliographic References

Friedman, Norman. 1986. The Postwar Naval Revolution. Naval Institute Press, Annapolis, Maryland.

Keatts, Henry C. and George C. Farr. 1994. U-Boats. Dive into History. Vol. 3. Pisces Books, Houston, Texas.

Maryland Inventory of Historic Properties. Maryland Historical Trust. Crownsville, Maryland.

Delgado, James P. 1992. Nominating Historic Vessels and Shipwrecks to the National Register of Historic Places. National Register Bulletin 20. National Park Service, Department of the Interior.

Preston, Anthony. 1978. U-Boats. Bison Books, London, England.

Pohuski, Michael. 1992. A Report on the Rediscovery and Reconnaissance Survey of the German Submarine U-1105. Prepared for the Maryland Historical Trust. Crownsville, Maryland.

Pohuski, Michael and Donald Shomette. 1994. The U-1105 Survey: A Report on the 1993 Archaeological Survey of 18ST636 A Second World War German Submarine in the Potomac River, Maryland. Prepared for the Maryland Historical Trust. Crownsville, Maryland.

Stern, Robert C. 1991. Type VIIC U-Boats. Naval Institute Press, Annapolis, Maryland.

Westwood, David. 1984. The Type VIIC U-Boat. Naval Institute Press, Annapolis, Maryland.

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Verbal Boundary Description:

The site's location is latitude: 38°08"10'N, longitude: 76°33"10'W; Loran numbers: 27476.5, 42085.5. Only the immediate environs of the submarine are included, based on a circle with a radius of 500 feet from the mooring buoy which is attached to a mooring clump installed by the Maryland Department of Natural Resources about 50 feet N.E. of the conning tower.

Boundary Justification:

The boundary has been established to protect the vessel from anchor damage by boats mooring nearby while awaiting an opportunity to access the mooring buoy. Anchoring within the site boundary is prohibited. The distance was chosen to encompass the length of the submarine and to allow for currents and tides moving the buoy from a position directly over the vessel.