

PH0663026

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FOR NPS USE ONLY

RECEIVED FEB 15 1978

DATE ENTERED OCT 10 1978

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

NAME

HISTORIC

U.S.S. LING (SS 297)

AND/OR COMMON

LOCATION

STREET & NUMBER

Hackensack River at 150 River Street

NOT FOR PUBLICATION

CITY, TOWN

Hackensack

VICINITY OF

CONGRESSIONAL DISTRICT
7th (Seventh)

STATE

New Jersey

CODE
34

COUNTY
Bergen

CODE
003

CLASSIFICATION

CATEGORY

DISTRICT

BUILDING(S)

STRUCTURE

SITE

OBJECT

OWNERSHIP

PUBLIC

PRIVATE group

BOTH

PUBLIC ACQUISITION

IN PROCESS

BEING CONSIDERED

STATUS

OCCUPIED

UNOCCUPIED

WORK IN PROGRESS

ACCESSIBLE

YES: RESTRICTED

YES: UNRESTRICTED

NO

PRESENT USE

AGRICULTURE

COMMERCIAL

EDUCATIONAL

ENTERTAINMENT

GOVERNMENT

INDUSTRIAL

MILITARY

MUSEUM

PARK

PRIVATE RESIDENCE

RELIGIOUS

SCIENTIFIC

TRANSPORTATION

OTHER

OWNER OF PROPERTY

NAME

Submarine Memorial Association (land leased from Bergen Record Newspaper)

STREET & NUMBER

150 River Street

CITY, TOWN

Hackensack

VICINITY OF

STATE
New Jersey

LOCATION OF LEGAL DESCRIPTION of property

COURTHOUSE,
REGISTRY OF DEEDS, ETC.

Administrative Building

STREET & NUMBER

Main Street

CITY, TOWN

Hackensack

STATE
New Jersey

REPRESENTATION IN EXISTING SURVEYS

TITLE

New Jersey Historic Sites Inventory

DATE

1977

FEDERAL STATE COUNTY LOCAL

DEPOSITORY FOR
SURVEY RECORDS

Office of Historic Preservation, DEP

CITY, TOWN

Trenton

STATE
New Jersey

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
<input type="checkbox"/> EXCELLENT	<input type="checkbox"/> DETERIORATED	<input checked="" type="checkbox"/> UNALTERED	<input type="checkbox"/> ORIGINAL SITE
<input checked="" type="checkbox"/> GOOD	<input type="checkbox"/> RUINS	<input type="checkbox"/> ALTERED	<input checked="" type="checkbox"/> MOVED
<input type="checkbox"/> FAIR	<input type="checkbox"/> UNEXPOSED		DATE <u>1/13/73</u>

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The U.S.S. LING (SS 297) is an original World War II BALAO CLASS of 1941-1942 submarine, and is named for an elongated gadoid food fish (*Molva molva*) found in Greenland and northern Europe. Built by Cramp Shipbuilding Company (William Cramp & Sons) of Philadelphia, Pa. (along with 11 others) and fitted out at the Boston Navy Yard, she was commissioned on June 8, 1945. The LING is 311'-6" L.O.A. with a 27'-3" beam and draft of 15'-3". Her surface displacement is 1,525 tons and submerged displacement 2,424 tons. Her main armament consisted of 24 torpedos, a 4"-50 caliber wet mount gun and two 20 mm anti-aircraft cannon. For propulsion she has four Fairbanks Morse diesel engines which are capable of 6400 shaft horsepower and have had only 600 hours of use, and two 2,750 HP electric motors for running submerged. Her cruising radius was 20,000 miles with a fuel capacity of 96,000 gallons. Surface speed was 20.5 knots and 8.75 knots below the surface, and she carried a normal complement of 85 men. The vessel has a thin outer hull and a 15/16" thick inner pressure hull (plus 1" cork insulation) between which are various fuel, water and ballast tanks. Dividing the submarine fore and aft are eight watertight compartments with bulkheads built to withstand the same pressures as the inner hull. The ninth watertight compartment is the conning tower on the main deck atop the control room. Visitors enter the interior of the LING from the main deck through a recently constructed companionway in the foredeck leading down to the forward torpedo room which contains six 21" torpedo tubes and bunks for 16 men. The next compartment is "officer's country" complete with tiny staterooms, pantry, restored ship's office and wardroom, which was also used for surgery. Behind this is the heart of the sub, the control room. In the forward part of this room is the auxiliary gyro-compass, the secondary steering station complete with engine-order telegraphs, rudder angle indicator, gyro-compass repeater and speed indicator. Here also is the "Christmas tree" panel of operating red and green indicator lights for watertight hatches, under which are the controls for the ballast tanks. Beyond this on the port side are the bow and stern plane wheels, shallow water and deep diving gauges, angle verniers and trim manifold. In the center of the compartment is the D.R.T. tracking console, main gyro-compass, fathometer and bathythermograph. Adjacent is the access ladder to the conning tower, two periscopes, and the diving, collision and general quarters alarms, all of which work. Toward the rear of the room are CO₂ absorbent cans, radar sets, manifold for blowing ballast tanks and a completely restored radio room. Below this impressive compartment is the pump room containing various compressors and pumps. Next aft are crew's quarters with a complete galley and mess table to serve 24 at a sitting. Overhead is the ammunition scuttle for the three magazines below this platform deck. Also

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below is the cool room. The "after battery" has space for 42 men to sleep and the bunks are still in place. Below deck here and under the officer's quarters are battery spaces each containing 126 cells nearly four feet tall that produce 350-710 volts for underwater running. Now follow two separate engine rooms each with 1600 HP Fairbanks Morse 9-cylinder diesel engines and generators capable of producing 415 volts. The forward engine room has large evaporators capable of distilling 1000 gallons of sea water into fresh every 24 hours. Behind the engine rooms is the maneuvering room with panels crammed with instruments and controls used for operating the sub underway. Below deck here are the large electric motors coupled to the twin screws for running submerged. The last compartment on the platform deck is the after torpedo room with four 21" torpedo tubes, hydraulic steering gear, compressed air flare gun and berths for 12-15 men. Here on display is a carved wood memorial plaque and a rare "Stanky hood" escape vest. Another recent companionway from this section returns the visitor to the main deck, which is made of teakwood, to view the conning tower and guns. The conning tower, located above the control room, contains the main steering station, #1 and #2 periscopes, fire control computer and much radar and sonar equipment, all completely refurbished. The forward section of the tower is the bridge, and the high sail or shear houses the periscopes and antennas. Number 1 periscope is fully raised and is completely operational for special occasions. In the aft lower portion is the main induction valve which drew in the air supply for the diesel engines when on the surface.

The LING has been beautifully refurbished and is maintained by the Submarine Memorial Association, a New Jersey non-profit corporation. They have the use of 5 1/2 acre Borg Park on the Hackensack River in the city of Hackensack. The LING is afloat and is connected to the shore by two specially-built docks that have 40' gangways retrieved from Old steamship piers. In the center of a large rope-enclosed grass area is a tall marine flagpole with gaff, and a torpedo memorial and bronze plaques to men and submarines lost before, during, and after World War II. Displayed around the greensward are several missiles, mines and anchors. A 50' by 100' steel building at one side of the entrance is used as a reception, meeting and museum area containing a large display of memorabilia and many submarine-related photos.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input checked="" type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input checked="" type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input type="checkbox"/> TRANSPORTATION
<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)
		<input type="checkbox"/> INVENTION		

SPECIFIC DATES

1945

BUILDER/ARCHITECT

William Cramp & Sons

STATEMENT OF SIGNIFICANCE

MILITARY/ENGINEERING

The U.S.S. LING (SS 297) is one of the last BALAO Class fleet-type submarines that patrolled the United States shores during World War II and one of very few remaining that has its original conning tower and periscope shears. The exterior and interior are entirely original and in mint condition. She was commissioned as a unit of the Submarine Force United States Atlantic Fleet under the command of Commander C. G. Molumphy and made one patrol of the Atlantic before World War II ended. The LING was decommissioned on October 26, 1946 and became a part of the New London Group Atlantic Reserve Fleet where she remained until reactivation as a Submarine Naval Reserve Training Vessel in 1960. In December 1962 she was converted from SS (submarine) to AGSS (Auxiliary Submarine - Assigned Special Duties) and attached to the former Brooklyn Navy Yard. She served as one of the most elaborate and authentic training aids in the world, mainly for Naval Reserve Submarine Divisions 2-23 and 3-55, and simulated all submarine operation including diving and surfacing. The LING was due for scrapping and was stricken from the Navy Register in December 1971.

To avert the loss of this valuable vessel the Submarine Memorial Association was formed in January 1972. They petitioned the U. S. Navy to let this unique part of history become a memorial and educational device. The non-profit organization pledged to "Perpetuate the memory of our shipmates who gave their lives in the pursuit of their duties while serving their country aboard submarines." A book has been kept with the names of the men and the submarines that have been lost. Many citizens and corporations contributed funds, and volunteers their time, to prepare the dock site and restore the vessel. The LING made the trip up the Hackensack River to her new berth on January 13, 1973 and was opened to the public in July of that year. Over 260,000 people, many of them schoolchildren, have since made the tour aboard. She is at a convenient location and is open every day all year from 10:00 AM to 6:00 PM. The LING has been authentically maintained, much of it to mint condition, and all compartments have been refurbished with authentic gear where necessary. The Navy Department has given the Association the LING's log books, ship's drawings and docking plans if the latter ever becomes necessary. The Association is

9 MAJOR BIBLIOGRAPHICAL REFERENCES

United State Naval Records. "USS Ling.L

Data accumulated by the Submarine Memorial Association

The Ships and Aircraft of the U.S. Fleet, Eighth Edition, James C. Fahey, 1965. United State Naval Institute, Annapolis (p. 21).

10 GEOGRAPHICAL DATA

less than 1 acre

WHB

10.10.78

ACREAGE OF NOMINATED PROPERTY 99 year leased-5 1/2 acres

UTM REFERENCES Submarine itself in Hackensack River

A 18 518,085,0 45,256,30
 ZONE EASTING NORTHING

B
 ZONE EASTING NORTHING

C

D

VERBAL BOUNDARY DESCRIPTION

Bounded east by the Hackensack River
 South by Court Street
 West by River Street
 North by the parking lot of the Bergen Record Corporation

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE

Claire K. Tholl

ORGANIZATION

for the Submarine Memorial Association

DATE

July 1977

STREET & NUMBER

50 Rolling Ridge Road

TELEPHONE

(201) 327-2144

CITY OR TOWN

Upper Saddle River

STATE

New Jersey

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL

STATE

LOCAL

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

Deputy
 STATE HISTORIC PRESERVATION OFFICER SIGNATURE

TITLE Deputy Commissioner, Dept. of Environmental Protection

1/16/78

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

ATTEST
 WILLIAM BELMONT
 KEEPER OF THE NATIONAL REGISTER

DATE *10/19/78*
 KEEPER OF THE NATIONAL REGISTER
 DATE *10/16/78*

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formally affiliated with the Henry P. Becton Regional High School of East Rutherford, N.J. Naval R.O.T.C. from which cadets receive training aboard from time to time. They also anticipate the same arrangement with St. Joseph's Regional High School this fall. The Association plans astronomy lectures in the near future and hopes to add more exhibits, such as two nuclear sub periscopes when they can be acquired.

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PAGE

U.S.S. Ling (SS 297)

Hackensack
Bergen County - 003
New Jersey 34

ADDENDUM

The Ling is probably nationally significant as the last pristine example of WW II submarine technology in the U.S. According to Rear Admiral John D.H. Kane, Jr. of the Naval History Museum in the Washington Navy Yard, the "Ling serves as an outstanding example of a World War II Fleet Type submarine... Unlike other submarines of the period preserved elsewhere in the nation, Ling appears as originally constructed; others were considerably modified to reflect new technology developed during and after that global conflict."

The Ling is virtually unchanged since it was first launched towards the end of the war. Periscopes, conning tower, weaponry surface ordinance, radio room and bunking facilities are all completely intact. Again quoting Kane, "The four main engines are in mint condition. Also related to the boat's propulsion and of particular interest to submarine visitors is the battery well. It is one of the most complete and best preserved examples of this source of underwater propulsion power unique to submarines of this vintage."