

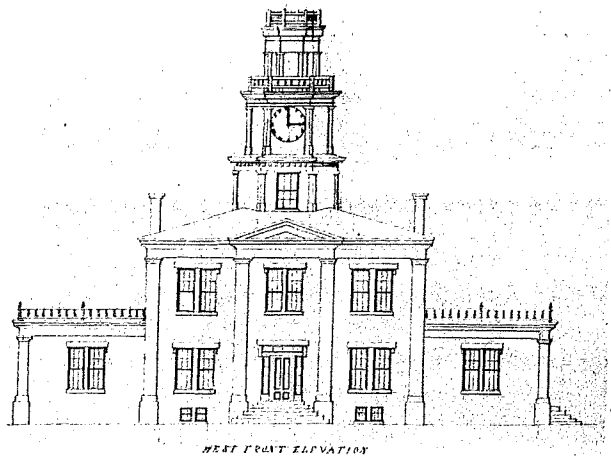
A HISTORY OF THE PORTSMOUTH NAVAL SHIPYARD



The first Man-of-War constructed which bore the National American flag and first to receive an official salute from a foreign nation, RANGER (1777). Library Of Congress

A Shipyard of Navy Firsts

- The first warship built in North America, HMS FALKLAND (1690).
- The heaviest ship ever laid down on North America at the time and the first ship of her class built by the Colonies, AMERICA (1782).
- The first Navy Shipyard to be established (1800).
- The largest steamship constructed in the Navy at that time, FRANKLIN (1867).
- The signing of the Portsmouth Treaty ending the Russo-Japanese War (1905).
- First submarine built in a U.S. Naval Shipyard, L-8 (1917).
- First U.S. submarine built with all welded steel hull, SNAPPER (1937).
- First live underwater explosion tests in the Yard (1937).



The first U.S. Navy clock to strike ship's bells, Building 13. Drawing by Benjamin F. Chandler (1857).

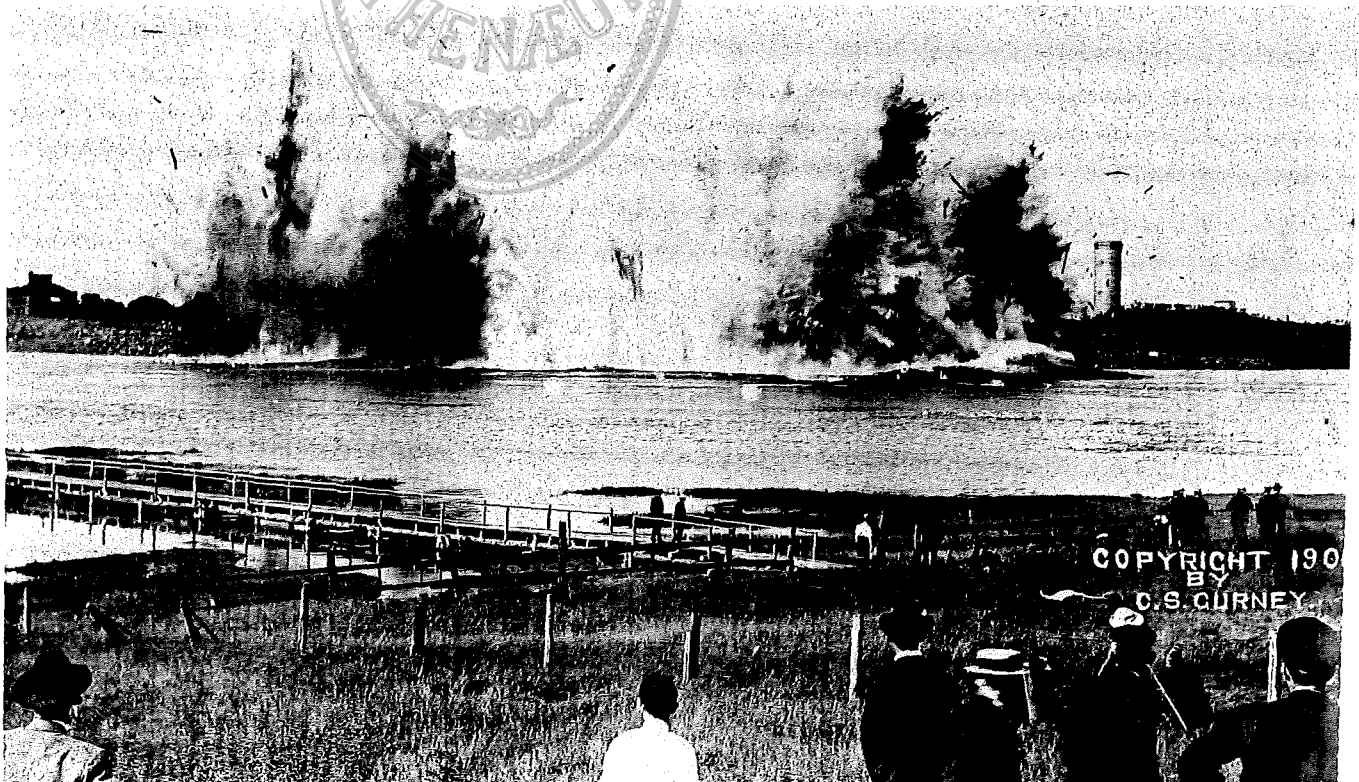
Courtesy of the Portsmouth Athenaeum, Portsmouth, N.H.

A HISTORY OF THE PORTSMOUTH NAVAL SHIPYARD

- First live underwater explosion tests, using operational submarines TAMBOR and TROUT as targets (1941).
- First U.S. submarines constructed of high tensile steel, BALAO (1942).
- Established a record for building the greatest number of submarines during a calendar year, 31 (1944).
- Pioneered in design of 20 submarines to GUPPY types. First to be completed, ODAX (1947).
- First snorkel installed in a U.S. submarine, IREX (1948).
- First new submarine after World War II, incorporating lessons learned during the War, TANG (1951).
- First truly submersible hull developed using dirigible structural form, ALBACORE: The world's fastest submarine, when built; developed the first remotely operated ballast control system; developed the first pilot control console (1953).
- First nuclear submarine built in Naval Shipyard, SWORDFISH (1958).
- First Naval Shipyard to acquire full capability for construction, overhaul, repair and refueling of nuclear powered Polaris submarines (1962).
- Engineering innovations to reduce operating noises and to increase power efficiency, JACK (1967).
- Prototype design for deep diving submarines, DOLPHIN (1968).



Constructed first ship to cross under the North Pole from Atlantic to the Pacific, SEA DRAGON (1959).



The detonation of the biggest single explosion of dynamite and the largest cofferdam ever constructed at that time to enlarge the channel at Henderson's Point. (1905). Photo by C. S. Gurney.

A HISTORY OF THE PORTSMOUTH NAVAL SHIPYARD

The Government property on Langdon's (Badger's) Island was moved to the Yard and in 1801 a timber shed and timber basin were built. Two years later a wooden barracks for Marines was built and a flag staff erected. However, the marines didn't arrive until 1806. They consisted of one first lieutenant, one sergeant, two corporals, fifteen privates and two musicians. A small gunboat was ordered for the protection of the harbor. Little else was done until 1812 except for clearing the island and erecting the required sheds, a smith shop, and saw pits; a few small boats were built for the use of the Yard.

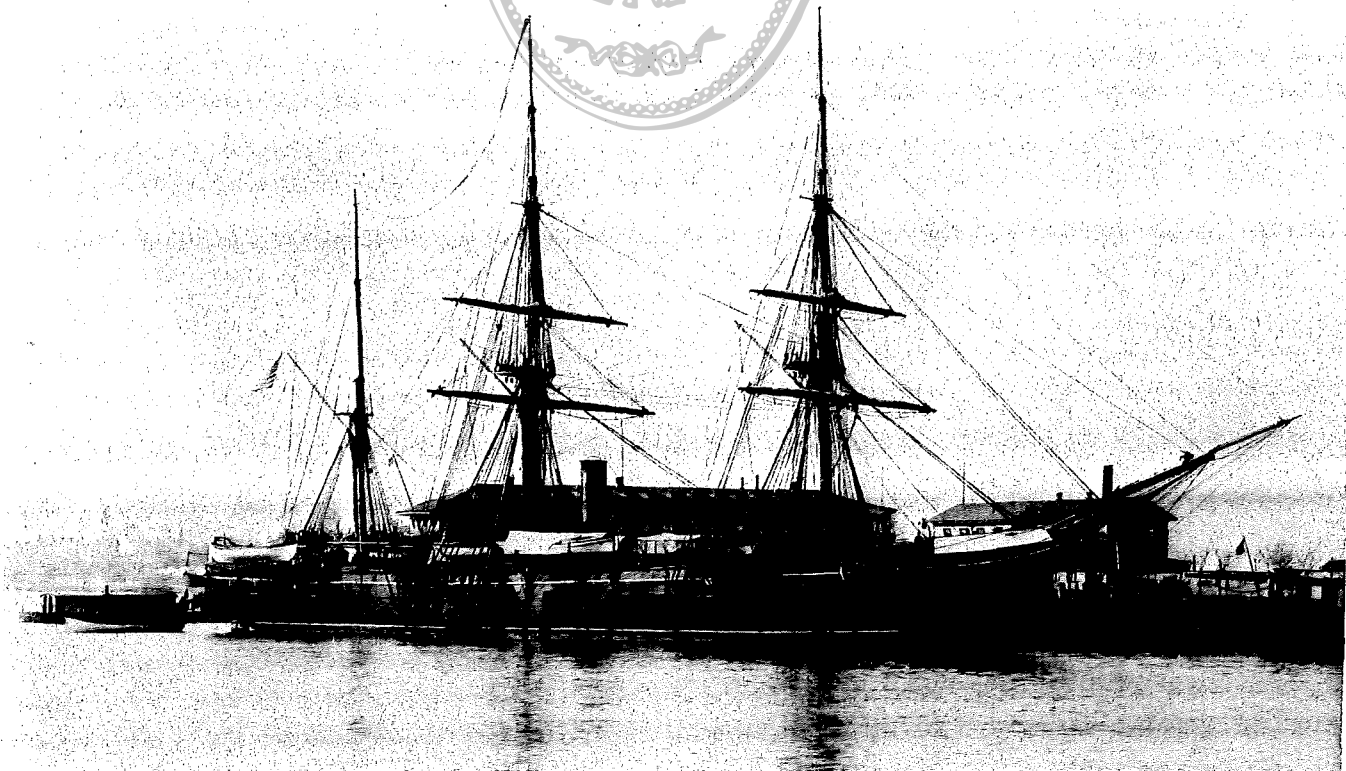
The War of 1812

At the beginning of the war with Great Britain, the policy on the government of navy yards was changed and all yards were placed under the command of a naval officer. Lieutenant Thomas MacDonough was placed in charge of the Portsmouth Yard in 1812, subject to the orders of the Commandant of the Boston Station. Jacob Sheafe was still acting as superintendent of the Yard.

In March 1812, WASP, a sloop of war, RATTLE-SNAKE, a schooner, and ENTERPRISE, a brig, were reported as being at the Yard and receiving some slight repairs. Several gun boats were also ordered to do duty here. In February of 1813, Commodore Isaac Hull, who was the Commandant, Boston Navy Yard, was given control of all the floating forces at Portsmouth, but not the Yard itself. In April of that year Commodore Hull came to Portsmouth as Commandant of the Portsmouth Navy Yard, an auspicious start for the small Yard. Commodore Hull took an interest in each step of construction. A story

is told of his confrontation with a shipyard ironworker:

"Mr. Fitzgerald was a man of some irritability as well as of independence, free to express his opinions without regard to persons. At the time when Commodore Isaac Hull had the Command of our Navy, there was occasion for iron as well as copper work for a ship-of-war at the Navy Yard, and Mr. Fitzgerald was among the workers in iron. One day the Commodore looked into Mr. Greenleaf's copper foundry, next east of the Stone church, and found Mr. Fitzgerald roughing out some iron work for a future finish. The Commodore, in his way, turning the rough pieces of iron with his cane, remarked, 'What bungling fellow has been at work here?' The son of Vulcan was a little touched, and turning his face up to him who had looked down on thousands, replied: 'I don't know what bungling fellow you mean; you may have bungling fellows in your ships; but there are none here. That is just as much as you know about it.' The Commodore thought best to make no reply to an old man of the revolutionary stock, and retired. A day or two after he returned to the shop again, and finding Mr. Fitzgerald surrounded by the well finished pieces of shining iron each neatly adapted to its purpose, the Commodore, touching them with his cane, remarked: 'O, this looks finely.' 'That is just what I told you the other day,' said Mr. Fitzgerald, 'we have no bunglers here.' The Commodore, instead of being displeased, replied with an oath, 'You are a good fellow for standing up for your craft.'"



ENTERPRISE. Photo by the Detroit Photographic Company. Library Of Congress

A HISTORY OF THE PORTSMOUTH NAVAL SHIPYARD

Henderson's Point, also known as Pull-and-be-Damned Point, extended off Seavey's Island at the southern side of the Yard. It used to project 500 feet into the Piscataqua River. The point made the channel narrow, forcing a swift run of tide which was difficult for large ships to navigate. The point was blown up in July 1905 with 46 tons of dynamite, an engineering feat of a magnitude never before attempted. Seventy thousand tons of rock were sheared from the island when the ledge, projecting 400 feet long and 300 feet at its widest point was pulverized in a single blast. Worldwide attention was focused on Portsmouth because of the large amount of explosives involved and the preparatory engineering work required.

Nearly three years of preparation by hundreds of men working night and day preceded the detonation of the biggest single explosion of dynamite. The Massachusetts Contracting Co., which handled the \$749,000 job began work in August 1902. During the next three years more than 500,000 tons of rock were blasted and scooped out of

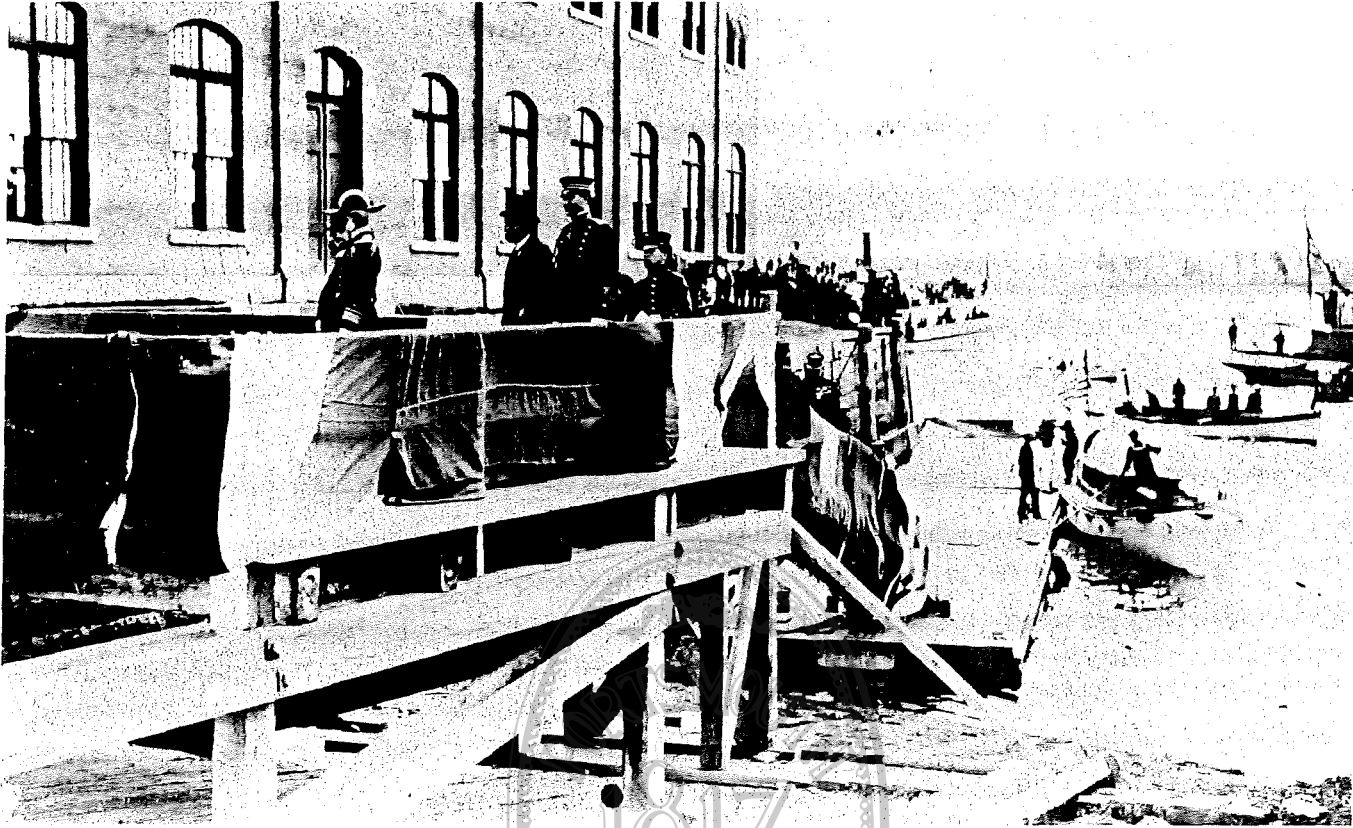
the center of the point to leave a crater 35 feet deep. Much of the rock removed from the point was deposited along the shores on either side for nearly a mile. In carrying out the work the firm set up a machinery plant and built a cofferdam, the largest ever constructed at that time, to hold back a headwater of 35 feet. The cofferdam had sheer rock walls rising 60 feet high and 80 feet thick.

The day of the explosion, July 22, 1905, a Saturday, thousands of visitors swarmed into Portsmouth for the event. Others fearful of the consequences traveled in the other direction. Many lined the Piscataqua shores for choice viewing ahead of the 4 o'clock firing time. When the switch was thrown releasing the explosion, an immense body of water leaped at least 100 feet in the air and a wave swept across the river swamping bridges on shore, but all went as planned. The only person injured was a timid citizen on the outskirts of Portsmouth who was run over while making for a safe place in the interior. It took two years more to dredge the crumpled rock for the 35 foot deep channel.



Prisoners hauling a cask, marine guard in the background. (ca. 1908).

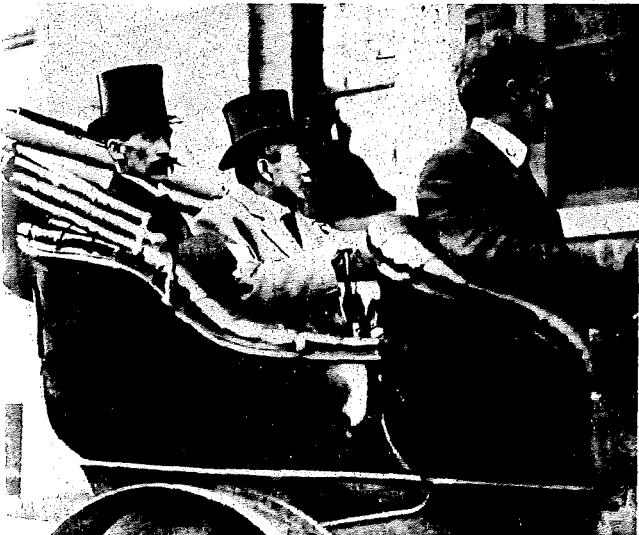
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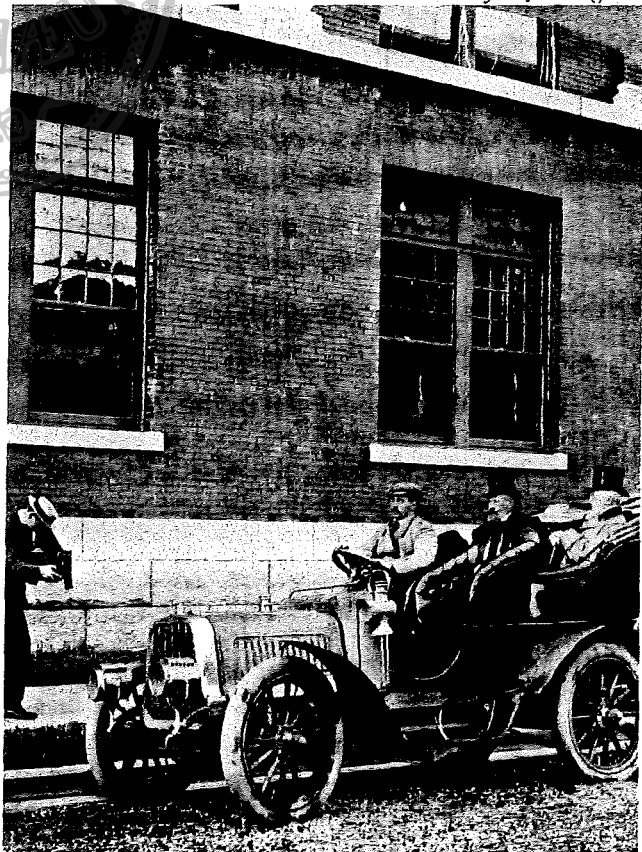
Russian and Japanese envoys arriving at Portsmouth (1905). Library Of Congress

The Portsmouth Navy Yard became the center of world interest in 1905. At the invitation of President Theodore Roosevelt, envoys from Russia and Japan met at the Yard to discuss terms for ending the Russo-Japanese War. Russia and Japan had been fighting for dominance of Korea and Manchuria. The delegates met on the second floor of the new Supply Building (now known as Building 86). Here, on September 5, 1905, the Treaty of Portsmouth was signed ending the war between the two empires.

Library Of Congress



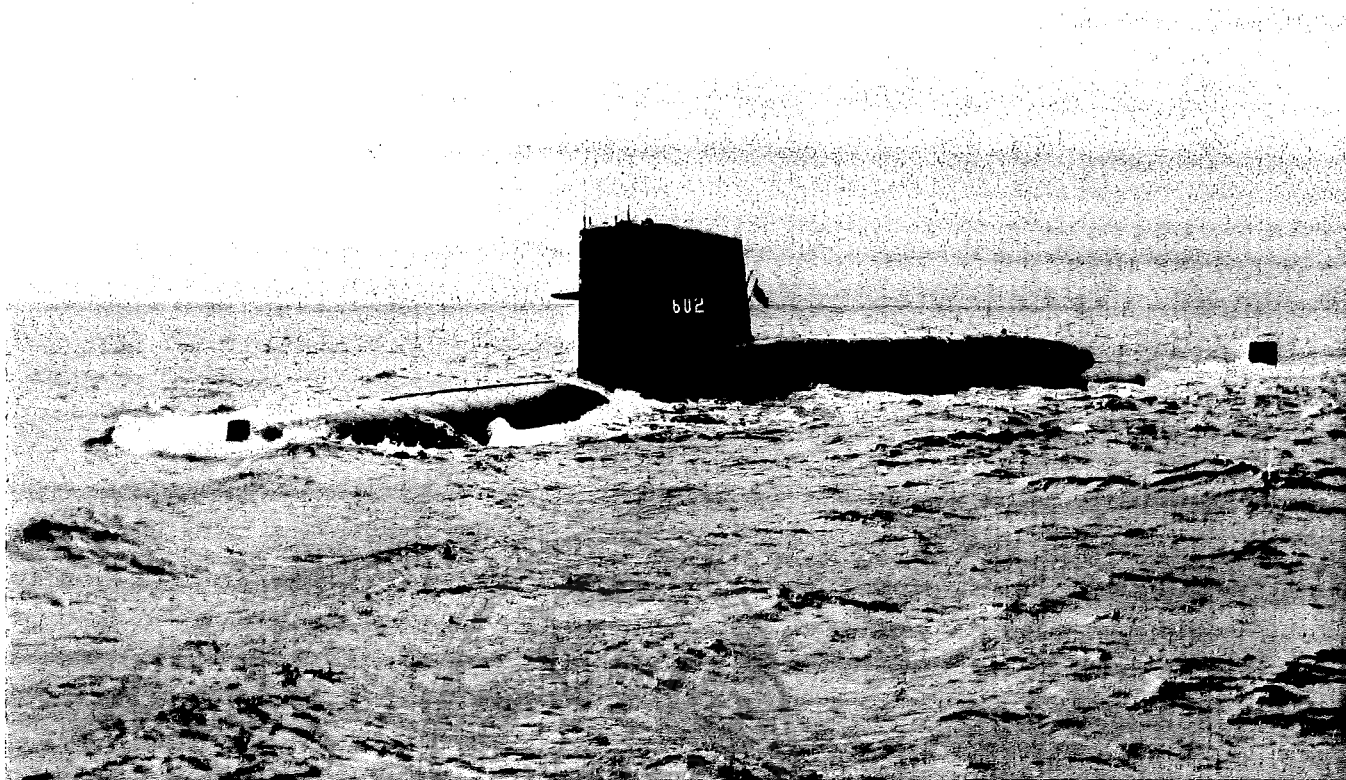
Japanese envoys arriving at Building 86, (1905).



Russian envoys arriving at Building 86, (1905).

Courtesy of the Portsmouth Athenaeum, Portsmouth, N.H.

A HISTORY OF THE PORTSMOUTH NAVAL SHIPYARD



ABRAHAM LINCOLN. (ca. 1961).

Other nuclear submarines were constructed during the period 1958-1971 with each class of submarine incorporating new features of design and new capabilities for military strategy. The keel of the ABRAHAM LINCOLN (SSBN602) was laid in 1958. The ship, completed March 11, 1961, was the first Polaris missile submarine to be built at this Shipyard. This ship, nuclear powered, initiated the Shipyard into the ballistic missile age. ABRAHAM LINCOLN could fire a highly destructive missile quickly and accurately from submerged or surfaced

positions. Its land targets could be located anywhere within a radius of several thousand miles.

Other ballistic missile submarines constructed at Portsmouth were JOHN ADAMS (SSBN620) commissioned May 12, 1964, and NATHANIEL GREEN (SSBN636) commissioned December 19, 1964. These were of the LAFAYETTE class, the third generation fleet ballistic missile submarine, and embodied more sophisticated systems than the predecessors.

USS Thresher

The USS THRESHER (SSN593), designed and built by Portsmouth Naval Shipyard, was launched on July 9, 1960. She was more maneuverable, deeper diving, and quieter than earlier submarines. Like ALBACORE, she had a teardrop-shaped hull that allowed her greater underwater speed. An attack submarine, she housed the most sophisticated weapons available. THRESHER was the lead ship of the Navy's most advanced class of nuclear attack submarines. She brought together for the first time, nuclear propulsion, optimum hydrodynamic hull form, deep diving capability, and the most advanced state-of-the-art designs of integrated sensor and weapon systems.

THRESHER was commissioned on August 3, 1961. After a post shakedown availability, THRESHER went out for sea trials on April 9, 1963. The next day, the THRESHER with her crew of 129 men was reported "over-due and presumed missing." She had made a test dive and never resurfaced.

Deputy Chief of Bureau of Ships at the time of the

THRESHER loss, Rear Admiral C. A. Curtze, said that the Navy had "moved too fast and too far in areas of offensive and defensive capabilities. Submarine safety did not keep pace." As a result of the THRESHER disaster, the Navy worked to lessen the risks for deep diving submarines.

The Navy immediately imposed depth limitations on all deep diving submarines. These limitations were in effect until recommended safety improvements were incorporated in the submarines. The Navy then included those safety improvements in the construction of all new submarines.

On April 15, 1963, thousands attended the THRESHER Memorial service on the Shipyard Mall. On April 17, a week after the THRESHER loss, religious services were held.

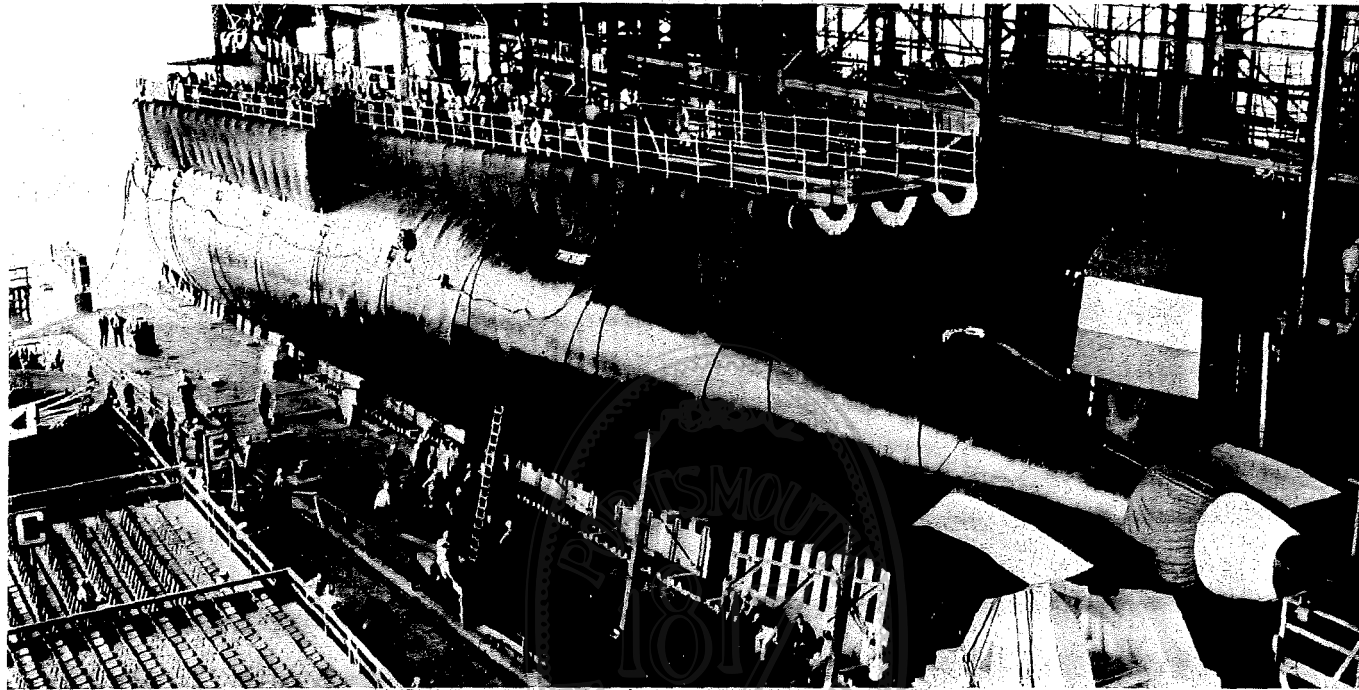
In August of 1963, a THRESHER Memorial Fund Drive was begun. Proceeds established a trust fund for relief and educational assistance to the 149 dependent

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children of the Navy and civilian personnel lost with the THRESHER. Some funds were set aside for memorials in the chapels at the U.S. Naval Submarine Base at Groton, Connecticut and the Portsmouth Naval Shipyard. A carillon, known as the THRESHER bells, was purchased for the Portsmouth Shipyard Chapel.

Two more ships of the THRESHER Class were built

at Portsmouth Naval Shipyard, JACK (SSN605), launched April 24, 1963 and commissioned March 31, 1967 and TINOSA (SSN606), launched December 9, 1961 and commissioned October 17, 1964. These were followed by two more nuclear attack submarines, GRAYLING and SAND LANCE of the STURGEON Class which represented further improvements of the basic THRESHER Class.



USS THRESHER (SSN593) ready for first bow-first launching July 4, 1960. Note temporary platform erected on the cylindrical hull for the launching.



THRESHER Memorial Service on Shipyard Mall. (April 15, 1963).

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Civilian Employees at Portsmouth Naval Shipyard

1818	50	1864	1,766	1936	3,300
1819	57	1865	1,861	1937	3,200
1820	70	1866	876	1938	3,300
1821	114	1867	977	1939	3,968
1822	111	1868	697	1940	7,587
1827	90	1869	837	1941	11,142
1828	74	1870	758	1942	18,326
1829	9	1871	697	1943	20,466
1830	16	1872	870	1944	17,102
1831	24	1873	680	1945	10,133
1832	43	1874	700	1946	5,542
1833	51	1875	417	1947	5,433
1834	42	1876	160	1948	5,971
1835	70	1877	71	1949	4,054
1836	74	1903	510	1950	4,047
1837	90	1904	492	1951	10,018
1838	45	1905	456	1952	10,559
1839	179	1906	418	1953	8,270
1840	104	1907	435	1954	8,000
1841	169	1908	440	1955	6,984
1842	188	1909	840	1956	6,865
1843	164	1915	1,150	1957	7,210
1844	63	1916	1,450	1958	7,500
1845	18	1917	5,100	1959	8,410
1846	13	1918	5,500	1960	9,335
1847	24	1919	5,100	1961	9,496
1848	143	1920	3,600	1962	9,197
1849	150	1921	2,850	1963	8,539
1850	105	1922	2,200	1964	7,180
1851	69	1923	1,750	1965	7,325
1852	73	1924	1,850	1966	7,805
1853	112	1925	2,623	1967	8,313
1854	241	1926	2,200	1968	8,528
1855	351	1927	1,850	1969	7,614
1856	265	1928	1,850	1970	6,813
1857	357	1929	1,900	1971	5,991
1858	557	1930	1,601	1972	5,582
1859	348	1931	1,552	1973	5,511
1860	207	1932	1,477	1974	6,095
1861	589	1933	1,595	1975	6,591
1862	1,160	1934	1,811	1976	6,701
1863	1,460	1935	2,579	1977	7,248

1820—1876 are a yearly average of mechanics and laborers only.
1903—1908 C&R Department only.



World War I Era—Submarine keel laying.



Courtesy of the Portsmouth Anchorage, Portsmouth, N.H.

A HISTORY OF THE PORTSMOUTH NAVAL SHIPYARD

Ships Built in Portsmouth Area

Ships Built on Badger's Island

For British Royal Navy:

Name	Guns	Class	Year
FALKLAND	54	Frigate	1690•
BEDFORD	32	Frigate	1696•
AMERICA†	60	Frigate	1749•

For Continental Navy:

Name	Guns	Class	Year
RALEIGH	22	Frigate	1776••
RANGER	18	Sloop	1776• 1777•
AMERICA†	74	Ship of Line	1776• 1782•
CRESCENT**	32	Frigate	1778•
PORTSMOUTH	24	Sloop	1797• 1798•
SCAMMEL	14	Schooner	1798••
CONGRESS	38	Frigate	1799••

†Presented to France

••Presented to Algiers

†Built at North Mill Pond, Portsmouth

NIPSIC in Limon Bay, Panama, during the Darien Expedition. (1870) Photo by Timothy O'Sullivan.



Courtesy of the Portsmouth Athenaeum, Portsmouth, N.H.