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FINAL
WATER AREA MUNITIONS STUDY
NAVY DUMPING GROUNDS
PORTSMOUTH NAVAL SHIPYARD, MAINE

June 2005

Prepared for:

Portsmouth Naval Shipyard
Naval Facilities Engineering Command
Engineering Field Activity, Northeast
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June 29, 2005

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Ms. Marty Raymond
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Re: Final Water Area Munitions Study for Portsmouth Naval Shipyard
Navy Preliminary Assessments for Munitions Response Ranges and Sites
Contract N62472-02-D-1300

Dear Mr. Evans and Ms. Raymond:

Malcolm Pirnie is pleased to submit this Final Water Area Munitions Study (WAMS) for Portsmouth Naval Shipyard (PNS). This Final WAMS is for the **Navy Dumping Grounds** associated with PNS.

Please call me at (914) 641-2690 if you have any questions or concerns.

Very truly yours,

MALCOLM PIRNIE, INC.

John M. Logigian
Associate

cc: J. Dolph – PNS
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WATER AREA MUNITIONS STUDY
NAVY DUMPING GROUNDS
PORTSMOUTH NAVAL SHIPYARD, MAINE

DoD Contract Number: N62472-02-D-1300

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Malcolm Pirnie, Inc. prepared this report at the direction of Engineering Field Activity Northeast. This document should be used only with the approval of the Engineering Field Activity, Northeast. This report is based, in part, on information provided in other documents, and is subject to the limitations and qualifications presented in the referenced documents.

June 2005

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ACRONYMS

BRAC	Base Realignment and Closure
CRS	Cultural Resources Survey
CSM	Conceptual Site Model
DERP	Defense Environmental Restoration Program
DMM	Discarded Military Munitions
DoD	Department of Defense
EFANE	Engineering Field Activity, Northeast
EO	Explosive Ordnance
EOD	Explosive Ordnance Disposal
FUDS	Formerly Used Defense Site
JILF	Jamaica Island Landfill
LANTDIV	Atlantic Division
LAW	Light Anti-Tank Weapon
MEC	Munitions and Explosives of Concern
MC	Munitions Constituents
MMRP	Military Munitions Response Program
MRP	Munitions Response Program
NAVFAC	Naval Facilities Engineering Command
NRHP	National Register of Historical Places
OE	Ordnance and Explosives
PNS	Portsmouth Naval Shipyard
POC	Point of Contact
RG	Record Groups
RPM	Remedial Project Manager
U.S.	United States
USACE	U.S. Army Corps of Engineers
USEPA	U.S Environmental Protection Agency
UXO	Unexploded Explosive Ordnance
WAMS	Water Area Munitions Study

GLOSSARY OF TERMS

Base Realignment and Closure (BRAC) – A Department of Defense (DoD) program that focuses on compliance and cleanup efforts at military installations undergoing closure or re-alignment, as authorized by Congress in four rounds of base closures for 1988, 1991, 1993, and 1995. (DERP Management Guidance, September, 2001)

Closed Range – A range that has been taken out of service as a range and that either has been put to new uses that are incompatible with range activities or is not considered by the military to be a potential range area. A closed range is still under the control of a DoD component. (DERP Management Guidance, September, 2001)

Defense Site – All locations that are or were owned by, leased to, or otherwise possessed or used by the DoD. The term does not include any operational range, operating storage or manufacturing facility, or facility that is used or was permitted for the treatment or disposal of military munitions. (10 U.S.C. 2710(e)(1))

Discarded Military Munitions – Military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage area for the purpose of disposal. The term does not include unexploded ordnance, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed of consistent with applicable environmental laws and regulations. (10 U.S.C. 2710(e)(2))

Explosive Ordnance Disposal (EOD) – The detection, identification, field evaluation, rendering-safe, recovery, and final disposal of unexploded explosive ordnance (UXO). It may also include the rendering-safe and/or disposal of EO (explosive ordnance) which has become hazardous by damage or deterioration, when disposal of such EO requires techniques, procedures, or equipment which exceed the normal requirements for routine disposal. (OPNAVINST 8027.1G, 14 Feb 92)

Explosives Safety – A condition where operational capability and readiness, personnel, property, and the environment are protected from the unacceptable effects of an ammunition or explosives mishap. (DoD Directive 6055.9 July 1996)

Formerly Used Defense Site (FUDS) – Real property that was formerly owned by, leased by, possessed by, or otherwise under the jurisdiction of the Secretary of Defense or the Components (including governmental entities that are the legal predecessors of DoD or the Components) and those real properties where accountability rested with DoD but where activities at the property were conducted by contractors (i.e., government-owned, contractor-operated (GOCO) properties) that were transferred from DoD control prior to October 17, 1986. The status of a site as a FUDS is irrespective of current ownership or current responsibility within the federal government. (DERP Management Guidance, September, 2001)

Munitions Constituents (MC) – Any materials originating from unexploded ordnance, discarded military munitions or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions. (10 U.S.C. 2710 (e)(4))

Munitions and Explosives of Concern (MEC) – This term, which distinguishes specific categories of military munitions that may pose unique explosives safety risks, means: unexploded ordnance, discarded military munitions or munitions constituents (e.g., TNT, RDX) present in high enough concentrations to pose an explosive hazard. (OUSD(AT&L) 18 December 2003)

Operational Range – A range that is under the jurisdiction, custody, or control of the Secretary of Defense and that is used for range activities, or although not currently being used for range activities, that is still considered by the Secretary to be a range and has not been put to a new use that is incompatible with range activities. (10 U.S.C. 101 (e)(3))

Other than Operational Range – Encompasses closed, transferred and transferring ranges.

Range – A designated land or water area set aside, managed, and used for range activities of the DoD. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, electronic scoring sites, buffer zones with restricted access and exclusionary areas, and airspace areas designated for military use in accordance with regulations and

procedures prescribed by the Administrator of the Federal Aviation Administration. (10 U.S.C. 101 (e)(3))

Transferred Range – A property formerly used as a military range that is no longer under military control and had been leased by the DoD, transferred, or returned from the DoD to another entity, including federal entities. This includes a range that is no longer under military control but was used under the terms of a withdrawal, executive order, special-use permit or authorization, right-of-way, public land order, or other instrument issued by the federal land manager. (DERP Management Guidance, September, 2001)

Transferring Range – A range that is proposed to be transferred or returned from the DoD to another entity, including federal entities. This includes a range that is used under the terms of a withdrawal, executive order, act of Congress, special-use permit or authorization, right-of-way, public land order, or other instrument issued by the federal land manager or property owner. An operational or closed range will not be considered a "transferring range" until the transfer is imminent. (DERP Management Guidance, September, 2001)

Unexploded Ordnance – Military munitions that have been primed, fused, armed, or otherwise prepared for action; have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and remain unexploded either by malfunction, design, or any other cause. (10 U.S.C. 101(e)(5))

EXECUTIVE SUMMARY

The Department of Defense (DoD) has established the Military Munitions Response Program (MMRP) under the Defense Environmental Restoration Program (DERP) to address munitions and explosives of concern (MEC) (including unexploded ordnance (UXO) and discarded military munitions (DMM)) and munitions constituents (MC) at other than operational military ranges and other sites. Closed, transferred, and transferring military ranges and sites not located on an operational range are considered other than operational. Although other than operational can include Formerly Used Defense Sites (FUDS) and Base Realignment and Closure (BRAC) ranges and sites, this report addresses other than operational ranges and sites at an active installation. It may include transferring and/or transferred ranges and munitions disposal sites associated with an active installation if they are not included in BRAC or FUDS.

However, by definition, munitions related sites located in water are not addressed under the MMRP. For example, deep-sea sites including former munitions disposal areas and ranges are not addressed under the MMRP. In order to document the history of these areas in a standard format, a Water Area Munitions Study (WAMS) report is complied. This report represents the WAMS for the Navy Dumping Grounds associated with the Portsmouth Naval Shipyard (PNS), Kittery, Maine.

During an initial site visit to PNS, a map was retrieved from the Port Operations Office showing a "Dangerous Ammo Disposal Area". The document review conducted as part of this WAMS revealed a 3 July 1944 memorandum providing information on a Navy Dumping Grounds, a specific deep water disposal area associated with PNS. The latitude and longitude described in this memorandum coincide with the location marked on the map.

The Navy Dumping Grounds is estimated to be a circular area with a 2.5 mile radius whose center is located at latitude 43°13'30" North, longitude 70°09'30" West (as noted in the 3 July 1944 memo). The Navy Dumping Grounds is located approximately 18.5 miles east of York Beach, Maine. The estimated depth of the area is approximately 60 fathoms. The general area is currently open water that is used for both recreational and commercial fishing.

The routine disposal of ordnance in deep water is no longer an accepted practice. However, the past practices of the Navy, as documented in their early policy and guidance documents, allowed for the disposing of unserviceable ammunition by sea. A search of archival records did not reveal documents clearly identifying the use of the Navy Dumping Grounds for specific munitions disposal associated with activities at PNS. However, records dating from 1929 to the late 1970s document storage and handling of various types of MEC and MC at PNS.

Given the fact that hundreds of thousands of pounds of explosives and munitions have been stored at PNS throughout its history and the fact that Navy policy allowed for the deep sea dumping of unserviceable munitions, it is possible that the Navy Dumping Grounds contains munitions and explosives of concern (MEC). However, the lack of records on the disposal activities makes it difficult to determine if any MEC or MC is present at the site or to identify potential environmental impacts. Instead, this report presents a summary of the records obtained and provides a list of ammunition known to have been stored or handled at PNS.

It is unknown whether munitions were disposed of at this site. However, given the amount of water, the length of time that any munitions may have been submerged, and the limitations of detection technologies, it is highly unlikely that the presence of MC, if munitions were originally dumped at the site, can be detected.

1. INTRODUCTION

The Department of Defense (DoD) has established the Military Munitions Response Program under the Defense Environmental Restoration Program (DERP) to address munitions and explosives of concern (MEC) (including unexploded ordnance (UXO) and discarded military munitions (DMM)) and munitions constituents (MC) at other than operational military ranges and other sites. Closed, transferred, and transferring military ranges and sites not located on an operational range are considered other than operational. This report addresses other than operational ranges and sites at an active installation. It may include transferring and/or transferred ranges and munition disposal sites associated with an active installation if they are not included in BRAC or FUDS.

However, by definition munitions related sites located in water are not addressed under the Navy Munitions Response Program (MRP). For example, deep-sea sites including former munitions disposal areas and ranges are not addressed under the MRP. In order to document the history of these areas in a standard format, a Water Area Munitions Study (WAMS) report is compiled. This report represents the WAMS for the Navy Dumping Grounds associated with the Portsmouth Naval Shipyard (PNS).

This WAMS is organized into the following sections:

- Section 1 – Introduction
- Section 2 – Installation Background
- Section 3 – Physical and Environmental Characteristics
- Section 4 – Summary of Data Collection Effort
- Section 5 – Site Characteristics

The following supporting information is appended to this WAMS:

- References (Appendix A)
- Project Source Data – General (Appendix B)
- Project Source Data – Site Specific (Appendix C)
- Ordnance Technical Data Sheets (Appendix D)

1.1. Purpose

This WAMS summarizes the history of munitions use for the Navy Dumping Grounds associated with the PNS and provides an assessment of the current conditions with respect to MEC and MC. The WAMS provides the necessary information for Navy and regulatory decision-makers to develop a Conceptual Site Model (CSM) for the site. The CSM presents information regarding: 1) MEC and/or MC known or suspected to be at the site; 2) current and future reasonably anticipated or proposed uses of the real property; and 3) actual, potentially complete, or incomplete exposure pathways that link them. The CSM is the basis for the risk evaluation, prioritization, and remediation cost estimate.

1.2. Project Management

This WAMS is being coordinated and managed by the Navy Engineering Field Activity Northeast (EFANE), a component of the Atlantic Division (LANTDIV) of the Naval Facilities Engineering Command (NAVFAC). The EFANE performs engineering functions for Navy installations throughout the northeast U.S. and is the Program Manager for this WAMS. Malcolm Pirnie, Inc. has been contracted to prepare this WAMS. The Navy Remedial Project Manager (RPM) and the installation points of contact (POC) for PNS provided valuable information and assistance throughout the WAMS data collection process. The Navy RPM is the responsible party for this WAMS.

1.3. Water Area Munitions Study Approach

The WAMS process for the Navy Dumping Grounds involved collecting and reviewing existing and available information about the site; data collection activities included off-site and on-site research and interviews. The Malcolm Pirnie data collection team conducted the on-site portion of the data collection in August 2003. A summary of the data collection process for the Navy Dumping Grounds is presented in Section 4.

This WAMS is inclusive and makes use of all available data relating to munitions use at the Navy Dumping Grounds, including historical records, field data, anecdotal evidence, interviews with site personnel, and professional knowledge and experience. It is based, in part, on information provided in documents referenced in Appendix A and is subject to the limitations and qualifications presented in the referenced documents.

2. INSTALLATION BACKGROUND

The PNS is one of four remaining publicly owned shipyards in the nation. PNS specializes in submarine design, modernization, overhaul, and repair, and has a key role in the very-deep ocean submersible and special operations arenas. Today the Shipyard's primary mission is the overhaul, repair, modernization, and refueling of LOS ANGELES Class nuclear powered submarines. It is currently the planning yard for the Navy's deepest diving submarine and submersible as well as other scientific research, defense prototype testing, and submerged rescue platforms. It is also the Ship Availability Planning and Engineering Center for the LOS ANGELES Class. PNS specializes in world-wide Fleet support and is an active participant in Northeast Regional Maintenance. The Shipyard has an active Technology Transfer Office and has had numerous successes in partnering initiatives involving academia and the private sector.

The following sections provide general information about PNS, including its location and setting; a brief history of the installation; its missions over time; and a history of munitions related training, storage, and usage.

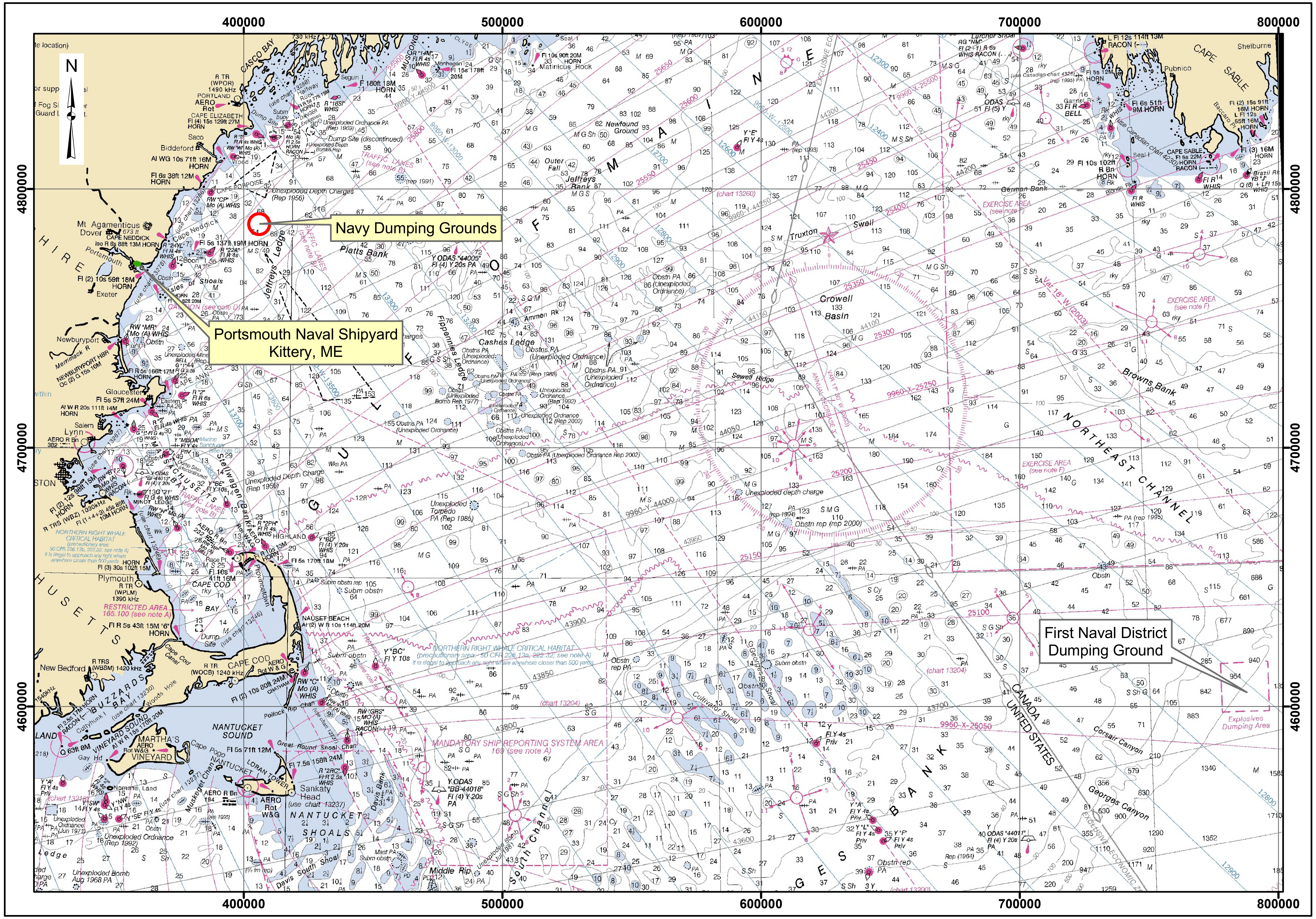
2.1. Location and Setting

PNS is located about 50 miles north of Boston, Massachusetts at the southernmost tip of Maine. The Shipyard fully encompasses Seavey's Island, which sits at the mouth of the Piscataqua River. Seavey's Island was originally five islands; Seavey's Island, Jamaica Island, Pumpkin Island, Dennett's Island, and Clark Island. The inter-island areas of Seavey's Island, Jamaica Island, Pumpkin Island, and Dennett's Island were gradually landfilled over time until only one large contiguous island remained. The island is commonly referred to as Seavey's Island and is connected to the smaller, undeveloped Clark's Island by a causeway. Seavey's Island is across the harbor from Portsmouth, New Hampshire with access to the mainland by two bridges that connect it to Kittery, Maine. PNS encompasses over 297 acres including the main base and a family housing area, which is located off base in Kittery, Maine. There are 179 buildings with over 3 million square feet of space including 49 ship repair/overhaul buildings. PNS has 6,224 lineal feet of berthing and, with its three drydocks, is capable of docking all active classes of submarines including the LOS ANGELES, VIRGINIA, and OHIO Classes. The Jamaica Island Landfill (JILF) is located on the eastern end of PNS. Map 2-1 depicts the location of the Navy Dumping Grounds.

Water Area Munitions Study
Portsmouth Naval Shipyard
Kittery, ME

MALCOLM PIRNIE

Map 2-1
Area Location Map
Navy Dumping Grounds



Legend

Installation Boundary

Navy Dumping Grounds

Note: Estimated Range Boundary Location

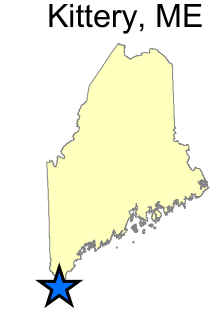
0 20 40 60 Miles

Data Source: NOAA
CAPE SABEL TO CAPE HATTERAS, 2003
Copyright 2002 Maptech, Inc.

Coordinate System: UTM Zone 19N
Datum: NAD 83
Units: Meters

Contract: N62472-02-D-1300
Edition: Final Water Area Munitions Study
Date: May 2005

Portsmouth Naval Shipyard
Kittery, ME



2.2. Installation History

The mission of PNS, as stated on the PNS website is "to keep America's Navy #1 in the world by serving as a partner on the Navy maintenance team, providing the best value in industrial and engineering support for world-wide nuclear submarine maintenance and inter-service regional maintenance".

The following history discussion was taken verbatim from the PNS website (http://www.ports.navy.mil/):

Portsmouth Naval Shipyard (PNS), Cradle of American Shipbuilding, located in the Piscataqua River Estuary between New Hampshire and Maine where in 1690 the first naval warship in North America was built, is the oldest naval shipyard continuously operated by the United States Government since its establishment in June 1800. At that time, President Thomas Jefferson approved the purchase of an island in the Piscataqua River as a site for a naval shipyard. Continuously, for more than two centuries, the men and women of Portsmouth Naval Shipyard have built and serviced naval vessels for our Nation's defense.

The Shipyard launched its first product, the 74-gun warship USS WASHINGTON, in 1815. During World War I, the PNS workforce expanded to nearly 5,000 people as it took on a new and important role--the construction of submarines--in addition to the overhaul and repair of surface vessels. World War II saw the civilian employment rolls swell to over 25,000 men and women. During World War II over 70 submarines were constructed at PNS, and 4 submarines were launched on the same day. Following World War II, PNS was the Navy's center for submarine design and development. The research submarine, USS ALBACORE, with its revolutionary tear-drop shaped hull and round cross section, set the standard for all subsequent submarine hull design world-wide.

In the mid 1950's, the Shipyard engaged in an extensive training program to acquaint employees with the special techniques and exacting requirements for the overhaul and construction of nuclear-powered submarines. Soon after, the keel of USS SWORDFISH, the first nuclear-powered submarine built in a naval shipyard, was laid, heralding in a new era for the Shipyard. In 1959, USS NAUTILUS, the first nuclear-powered submarine, entered PNS for her first complete overhaul, the first of any nuclear-powered ship. PNS continued to design and build submarines,

including USS DOLPHIN, the Navy's deep diving research submarine, until 1969, when the last submarine built in a public shipyard, the nuclear powered USS SAND LANCE, was launched.

2.3. Munitions Related Training / Storage / Usage

Existing ordnance facilities at PNS currently consist of a magazine used for small arms ammunition storage. This magazine is located northwest of the closed Small Arms Range. Historical ordnance facilities at PNS include the following:

- Building 22 – Officers Club
  - Constructed in 1857
  - Indoor Small Bore Range located in first floor wing, c1900 – c1950
- Building 31 – Powder Magazine
  - Constructed in 1860.
  - In the late 1930s, this building was routinely used to store 3-inch fixed ammunition, small arms ammunition, and pyrotechnics. It was occasionally used to store torpedo war heads and torpedo detonators.
  - Ten (10) war heads and twelve (12) detonators were stored in Buildings 31 and 32 from 1 June 1936 to 11 August 1936 while the USS PORPOISE underwent overhaul at PNS.
  - The use of this building as a magazine ceased in 1942, and the ammunition stored in the building was transferred to the Jamaica Island magazines.
- Building 32 – Powder Magazine
  - Constructed in 1848-1849.
  - In the late 1930s, this building was routinely used to store 3-inch fixed ammunition, small arms ammunition, and pyrotechnics. It was occasionally used to store torpedo war heads and torpedo detonators.
  - Ten (10) war heads and twelve (12) detonators were stored in Buildings 31 and 32 from 1 June 1936 to 11 August 1936 while the USS PORPOISE underwent overhaul at PNS.
  - The use of this building as a magazine ceased in 1942, and the ammunition stored in the building was transferred to the Jamaica Island magazines.
  - By 1962, Building 32 was used as a gammagraphing building and was no longer used to store ordnance.

- Building 33 – Shell House
  - Constructed in 1854-1856 for the storage of unloaded shell.
  - This building was used to store fixed ammunition and/or small arms ammunition and pyrotechnics.
  - Building 33 was used exclusively for detonator storage in 1937.
  - The use of this building as a magazine ceased in 1942, and the ammunition stored in the building was transferred to the Jamaica Island magazines.
  - Building 33 was inactive as of 1971.
- Building 34 – Shell House
  - Constructed in 1857-1858 for the storage of loaded shells.
  - This building was used to store fixed ammunition and/or small arms ammunition and pyrotechnics.
  - The use of this building as a magazine ceased in 1942, and the ammunition stored in the building was transferred to the Jamaica Island magazines.
  - Building 34 was used for cold storage after 1945.
- Building 176 – Torpedo Storage and Workshop Building
- Building 191 – Armory
  - Constructed in 1945 for storage.
  - This building was used as an armory in 1958 and as barracks for enlisted men in 1962-1998.
- Building 205 - Dynamite Magazine
- Building 1245 – Fixed Ammunition Magazine
- Buildings IHTX-41 and IHTX-42 – Fuze & Detonator Magazines
  - Constructed underground in 1941.
  - The magazines were transferred from the U. S. Naval Magazine to PNS in 1947.
  - The magazines were in use as of 1962, but were vacant as of 1967.
- Building IHTX-43 – Pyrotechnics Magazine
  - Possibly the same building as IY-43.
- Building IHTX-44 – Small Arms Ammunition Magazine
  - Possibly the same building as IY-44.
- Buildings IKT-1 to IKT-40 - High Explosive Magazines; Concrete Igloos
  - Constructed on Jamaica Island in 1941-1942.
  - The igloos were transferred from the U. S. Naval Magazine to PNS in 1947.

  - Items in storage in 1978 included: 40 mm saluting charges (black powder 1.3), riot control (CS, CN), C3 and C4 gas generators, small arms, caps and fuzes, TNT Block C4, law rockets, other high explosives, pyrotechnics, and offensive grenades.
  - As of 1978, the igloos were presumed no longer in use. IKT-10 through IKT-17 were demolished as of 1978, and the remaining igloos were demolished in 1987.
- Building IY-43 – Pyrotechnics Magazine
  - Constructed on Jamaica Island in 1941-1942.
  - The magazine was transferred from the U. S. Naval Magazine to PNS in 1947.
  - Building IY-43 was used for RADIC repair in 1953, as a pyrotechnics magazine in 1958, and as a radio receiving building in 1979.
- Building IY-44 – Small Arms Ammunition Magazine
  - Constructed on Jamaica Island in 1941-1942.
  - The magazine was transferred from the U. S. Naval Magazine to PNS in 1947.
  - Building IY-44 was used as a small arms ammunition magazine in 1962, passive defense storage in 1976, a recreation grounds building in 1979, and a small arms magazine in 1998.
  - In 1978, explosives stored in Building IY-44 included: various cartridges, smoke hand grenades, various signals, and C3 and C4 gas generators.
- Building IZ-45 – Fixed Ammunition Magazine
  - Constructed on Jamaica Island in 1941-1942.
  - The magazine was transferred from the U. S. Naval Magazine to PNS in 1947.
  - Building IZ-45 was used as production storage in 1962, disaster control storage in 1967, passive defense storage in 1976, and a recreation grounds building in 1979.
  - The building was demolished in 1998.
- Building M-4 – Armory
  - Constructed in 1904.
  - This building was used as a store house in 1923, a police shed and storage building in 1923, an armory and storage building in 1958, and an armory and gymnasium in 1962-1998.
- Building M-10 – Armory
  - Constructed in 1913.
  - This building was used as a coal shed in 1936 and for cold storage in 1942-1998.

- Building M-11 – Armory
  - Constructed in 1911.
  - This building was used as a cold shed in 1936 and for cold storage in 1945-1998.
- Building M-12 – Armory
  - Constructed as a shooting gallery in 1890 and removed in 1919.
  - Sport scuba divers have reported locating small arms munitions in an underwater area along the shore in the back channel. This area is adjacent to where this building was located. A cursory observation of one of the cartridge cases retrieved made by the Shipyard Historian in consultation with a local gunsmith suggests that it is c1898, Spanish War era.
- Structure 250 – Dynamite Magazine
  - Constructed on Seavey Island c1905.
  - This building was used as a dynamite magazine from 1947 to 1971, and was vacant as of 1976.
- Other Magazines
  - Marine barracks had two magazines used for small arms storage – closed in 1974
  - Magazines located at the Small Arms Range were used to store munitions off-loaded from ships docked at the Shipyard. Items stored included: 40 mm saluting charges (black powder 1.3), riot control (CS, CN), C3 and C4 gas generators, small arms, caps and fuzes, TNT Block C4, law rockets, other high explosives, pyrotechnics, and offensive grenades. Storage was temporary while ships were being serviced. There is no evidence or record of any Discarded Military Munitions from or near these magazines. All magazines were removed in the 1980s.
- Gun Park and Shot Park
  - Used to store cannons and cannon balls (without gun powder).
- Prison
  - Stored small arms ammunition for security.
  - Indoor shooting range (noted on 1916 drawing).
- Small Arms Range
  - Located at eastern end of Shipyard.
  - Operational from 1964-1988 (approximate dates according to PNS personnel).
  - Small arms only.

- Trap Shooting Range
    - Located on Jamaica Island
    - Operate post WWII, actual operation dates unknown (listed in Portsmouth Naval Base Manual, 15 May 1947)

3. PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

The following sections provide general information for PNS, including its climate and endangered species.

3.1. Climate

The overall climate in the Portsmouth region is characterized as variable. The average daily temperature ranges from 13 ^{o}F in January and February to 80 ^{o}F in July. Precipitation is fairly evenly distributed over the year, with an annual total of 42.6 inches.

3.2. Endangered and Special Status Species

A review of the Threatened and Endangered Species System on the U.S. Fish & Wildlife Service website (http://ecos.fws.gov/tess_public/TESSWebpageUsaLists?state=ME) listed the following endangered species for the state of Maine:

- Sea turtle, leatherback (*Dermochelys coriacea*)
- Whale, finback (*Balaenoptera physalus*)
- Whale, humpback (*Megaptera novaeangliae*)
- Whale, right (*Balaena glacialis (incl. australis)*
- Salmon, Atlantic Gulf of Maine Atlantic Salmon DPS (*Salmo salar*)
- Sturgeon, shortnose (*Acipenser brevirostrum*)

4. SUMMARY OF DATA COLLECTION EFFORT

Five primary sources of information were researched as part of the data collection effort for the WAMS. The sources of data included:

1) Historical archives;
2) Personal interviews;
3) Installation data repositories;
4) Visual survey; and
5) Off-site data sources and repositories, such as local libraries and museums.

These five sources of data are discussed below, along with their relative application to this WAMS.

4.1. Historical Archive Repositories (off-site)

The data collection team reviewed archival records located at the National Archives in College Park, Maryland, and in Washington, D.C. The data collection team researched the following records and record groups (RG) for documents relating to munitions usage at PNS. An asterisk (*) indicates the material was photocopied.

Textual Records:

RG 71, Bureau of Yards and Docks
Naval Property Case Files, Boxes 523*, 524, 525*, 526, 758, 759

RG 72, Bureau of Aeronautics
Entry 67, Confidential Correspondence, 1922-1944, Boxes 1209, 1210
Entry 67-A, Confidential General Correspondence, 1945, Box 308
Entry 62-B, General Correspondence, 1943-1945, Boxes 3476, 3480
Entry 75-A, Secret Correspondence, 1939-1947, Boxes 61, 62, 63

RG 74, Bureau of Ordnance
Entry 25-I, General Correspondence, 1942, Confidential, Boxes 217, 218
Entry 25-J, General Correspondence, 1942, Restricted, Boxes 604, 606, 607
Entry 25-O, General Correspondence, 1943, Restricted, Boxes 516*, 718
Entry 25-U, General Correspondence, 1944, Confidential, Boxes 597, 601, 603
Entry 25-V, General Correspondence, 1944, Restricted, Boxes 914*, 1316, 1342
Entry 1003-A, General Correspondence, 1948, Boxes 236, 238
Entry 1003-B, General Correspondence, 1949, Boxes 670, 672
Entry 5704, Office of Administration, General Subject Files, 1942-1946, Box 22
Construction and Procurement Subject Files
1945, Boxes 1284*, 1609, 1626, 1627

1946, Boxes 423, 428
1947, Boxes 320, 324

Cartographic Records:

RG 23, Coast and Geodetic Survey
Folders for Nautical Charts 329

RG 57, USGS
Quad map series: Kittery, ME; Portsmouth, NH

RG 71, Bureau of Yards and Docks
Maps for facilities 115, 120*, codes 1, 2, 3, 15, 16, 32, 34, 42, 44-48
Series I microfilm, Rolls 1*, 2*, 3, 8, 9, 10
Series II Index, Boxes17-19
Series II Microfilm, Reels 100, 101*

RG 77, Dept. of Army
Army Mapping Service, AMS-V811, V812, V011-S, V012-S

RG 127, Marine Corps Records
Administration Maps*

RG 385, Naval Facilities Engineering Command, 1917-1989
Architectural and Engineering Plans, Boxes 253*, 254, 255
Restricted UIC Architectural and Engineering Plans, Box N1

Aerial Photos:

RG 145, Dept. of Agriculture, ASCS
DQW-10K-11, DQW-10K-12

RG 373, Defense Intelligence Agency
Cans ON 1202, 1203, 4032, 5495, 7055, 9882, 9888, 34764

Still Photos:

RG 71, Bureau of Yards and Docks
Entry 71-CA, Construction Projects, 1879-1943, Boxes 414*, 419, 421
Entry 71-CP, Construction Projects, 1941-1953, Box 82*

RG 80, Department of Navy,
Series 80-G**,** Boxes 278, 286, 293, 528, 662, 1103, 1261, 1903, 1904, 1944, 1939

RG 428, Navy Photos (Activities), 1957-1964,
Series 428GX, Boxes 445, 446, 507, 550, 555-557, 588-589, 606-607, 614, 635, 872, 885
Series 428-GXA, Boxes 26, 69, 108, 109*, 112, 115

RG 72, Bureau of Aeronautics:
Entry 62-B, General Correspondence, 1943-1945, Box 2160*

4.2. Personal Interviews

Malcolm Pirnie, Inc.'s data collection team visited the following offices located at PNS to interview representatives and research records related to the activities that were conducted at the site of concern: Environmental Department, Public Safety Office, Fire Department, and Security.

Personal interviews conducted during the site visit were with the following personnel: Ms. Marty Raymond (IRP Manager, Environmental); Mr. Kenneth Plaisted (Environmental Division Head); Mr. James Dolph (Base Historian); Mr. Larry Strafen (Training Officer, PNS Fire Department); Mr. Kevin LeBoeuf (Explosive Safety Officer); and Mr. Robert Becker (Natural Resources Program Manager).

Environmental:

Mr. Kevin LeBoeuf is the Explosives Safety Officer at PNS. He has been the Safety Officer since August 1, 2003. Mr. LeBoeuf did not provide any information relevant to the Navy Dumping Grounds.

Mr. Robert Becker is the person in charge of Natural Resources at PNS. Mr. Becker has been at PNS since 2000 and has worked in Natural Resources since June 2003. Mr. Becker provided us with a Selected Natural Resource Inventory Report that was conducted on Clarks Island in 1994.

Fire Department:

Mr. Larry Strafen is the Training Officer at the PNS Fire Department. Mr. Strafen did not provide any information relevant to the Navy Dumping Grounds.

Shipyard Museum:

Mr. James Dolph is the Base Historian for PNS. Mr. Dolph provided information regarding the history of the Shipyard, specifically history related to ordnance at PNS. Documents provided by Mr. Dolph are included in Appendices A and B of this report.

4.3. On-Site Data Repositories

Malcolm Pirnie, Inc. reviewed files and drawings located in the environmental office at PNS. Files were made available for review at the site. Malcolm Pirnie, Inc. made copies of files of

interest. In addition, an on-site historian at PNS performed a literature search. All documents found were utilized and added to the list of references in Appendix A of this report.

4.4. Visual Survey

The site of interest is a deep water disposal area. Due to the site's location, the data collection team did not conduct a visual survey as part of the data collection effort for the WAMS.

4.5. Off-Site Data Sources

The data collection team visited the following off-site data repositories located near PNS to obtain additional historical information regarding the site:

- Portsmouth Public Library in Portsmouth, New Hampshire
- Kittery Historical and Naval Museum in Kittery, Maine

Available information regarding munitions use at PNS was sought. Neither of these repositories had any specific information regarding munitions use at PNS or the Navy Dumping Grounds.

5. SITE CHARACTERISTICS

The following sections provide site-specific information about the Navy Dumping Grounds at PNS, including history and site description, munitions characterization, contaminant migration routes, receptors, land use, access controls and restrictions, the conceptual site model, and MC/MEC recommendations.

5.1. History and Site Description

The routine disposal of ordnance in deep water is no longer an accepted practice. However, the past practices of disposal of ordnance in deep water were acceptable for ordnance items that were deemed unserviceable. The Bureau of Ordnance published several policy and guidance documents in the 1940s and 1950s regarding procedures for disposing of unserviceable ammunition by sea. The earliest Navy policy document available to the data collection team that referenced deep sea munitions disposal was a Bureau of Ordnance Publication, *Ammunition Ashore, OP 5 (Volume 1)* dated 10 June 1944. Chapter 29 (Destruction of Ammunition and Explosives) of the document included guidelines and procedures for deep sea disposal of munitions under Article 2902 (Methods of Destruction) and Article 2905 (Procedures for Disposal of Ammunition by Dumping in Deep Water).

Article 2902 states in part:

> Ammunition and explosives that are dangerously deteriorated or damaged, obsolete, subject to malfunctions, or are otherwise unserviceable, and which cannot be economically salvaged or safely sold, are normally destroyed. Destruction is accomplished by dumping in deep water, burning, detonating or "bleeding off," as prescribed in this chapter or other applicable instructions of the Bureau of Ordnance. The preferred method of disposal is by dumping at sea. [1]

[1] *Ammunition Ashore Handling, Stowing and Shipping, OP 5 (Volume 1) dated 9 August 1957.*

Article 2905 states in part:

> As directed by the Chief of Naval Operations, all disposal operation accomplished by dumping in deep water shall be conducted in areas as specified below:
>
> - Explosives-loaded ammunition and pyrotechnics must be dumped in deep water over 500 fathoms in depth and at least 10 miles from shore.
> - Chemicals, exclusive of pyrotechnics, must be dumped in deep water 1,000 fathoms in depth and at least 10 miles from shore.
> - Vessels assigned specifically to conduct dumping operations, all instances, shall dump in areas designated by district commandants or sea frontier commanders. [2]

This WAMS focuses on the Navy Dumping Grounds associated with Portsmouth Naval Shipyard. However, an additional deep water disposal area was identified during the document review: a disposal area that was used by several Navy installations in the First Naval District. These two disposal areas are discussed in the following paragraphs.

During an initial site visit to PNS, a map was retrieved from the Port Operations Office showing a "Dangerous Ammo Disposal Area". The document review conducted as part of this WAMS revealed a 3 July 1944 memorandum providing information on a Navy Dumping Grounds, a specific deep water disposal area associated with PNS. The latitude and longitude described in this memorandum coincide with the location marked on the map.

The Navy Dumping Grounds is known to have been a deep water disposal area associated with PNS, but no evidence was found in archival records that clearly identified the use of this area for specific munitions disposal. A July 1944 document references the coordinates of the Navy Dumping Grounds. It states: "… the specific location for the dumping of ammunition for activities within the area of the Navy Yard, Portsmouth, N. H. is a circle of 2.5 miles radius whose center is Latitude 43°13'30" North, Longitude 70°09'30" West." [3] Although no evidence of the disposal of specific munitions at the Navy Dumping Grounds was found, U. S. Navy Yard Log Books from 1945 indicate that the Yaquima, a PNS tug boat, was used to "dump obsolete secret ordnance material at sea." [4] The Navy Dumping Grounds is located approximately 18.5 miles east of York Beach, Maine. The estimated depth of the area is approximately 60 fathoms.

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[2] *Ammunition Ashore Handling, Stowing and Shipping, OP 5 (Volume 1) dated 9 August 1957.*
[3] U. S. Navy Yard, Portsmouth, N. H. memorandum dated 3 July 1944. To: COMONE. From: Commandant. Subject: Dumping Grounds, First Naval District.
[4] U.S. Navy Yard, Portsmouth, N. H. Log Book of Thomas Wittiers, Rear Admiral. 11 June 1945, 13 June 1945, and 31 August 1945.

Map 5-1 illustrates the site details of the Navy Dumping Grounds and is provided at the end of Section 5.

The time period that the Navy Dumping Grounds associated with PNS was active cannot be estimated because of the lack of documentation referencing disposal activities in this area. Archival records dating from 1929 to the late 1970s document storage and handling of munitions at PNS.

Archival records indicate that the Navy Dumping Grounds was separate from the deep water disposal area that was used by several Navy installations in the First Naval District. The First Naval District dumping area was located in a ten square mile area whose center is latitude 41°33' North, longitude 65°33' West.[5]

The document review also revealed two memos from 1921 discussing the disposal at sea of two 4-inch guns from ex-German Submarine U-111. The disposal location was not identified.[6]

5.2. Munitions and Munitions Related Materials Associated with the Site

This section describes the munitions or munitions related materials known or suspected to be at the site. This includes both MEC and non-hazardous munitions related scrap.

No archival documents were found that clearly identified the disposal of munitions at the Navy Dumping Grounds associated with activities at PNS. No records of chemical warfare materiel (CWM) filled munitions, electrically fuzed munitions, or depleted uranium (DU) associated munitions are known to have been dumped at this site.

Munitions and munitions related materials that are known to have been stored at PNS are listed below. Documentation indicating disposal of these items at the Navy Dumping Grounds was not found.

- 7.2 inch Hedgehogs

[5] Memorandum dated 15 May 1945. To: Commanding General, Harbor Defenses, Boston. From: Captain, U.S.N. Assistant Commandant (Operations). Subject: Dumping Grounds for Explosives, Ammunition, and Chemicals.

[6] Memorandum dated 21 July 1921. To: Chief of Bureau of Ordnance. From: Commandant. Subject: Guns removed from ex-German Submarine U-111.

- 40 mm saluting charges (black powder 1.3)
- Cannons and cannon balls (with gun powder)
- Cartridges
- Depth charges, Mk 11-2, loaded with Grade “B” TNT
- Fixed ammunition (3-inch)
- Fuzes & detonators
- Gas generators, C3 and C4
- Gas generators, Mk 50 MOD 0 and Mk 60 MOD 0Pyrotechnics
- High explosives
- Light anti-tank weapon (LAW) rockets
- Mark 10/ll Hedgehog projectors
- Mk 14 torpedoes
- Offensive grenades
- Riot control (CS, CN)
- Signals
- Small arms ammunition
- Smoke hand grenades
- Torpedo detonators
- Torpedo war heads

5.3. MEC Presence

The entire site has been subdivided and categorized into one of three levels of MEC presence including: Known MEC Areas, Suspect MEC Areas, and Areas where No Evidence exists to indicate that MEC is known or is suspected to be at the site. The MEC presence is discussed below.

Map 5-2**Error! Reference source not found.** illustrates the munitions characterization of the deep water disposal area associated with PNS and is provided at the end of Section 5.

5.3.1. Known MEC Areas

There are no known MEC areas associated with the site.

5.3.2. Suspected MEC Areas

The entire area can be considered a suspected MEC area. Archival documents did not provide definitive evidence of munitions dumping in this area. However, records documenting the storage and handling of munitions at PNS were found, and Navy policy in the mid-1900s permitted the disposal of unserviceable ammunition in areas of deep water.

5.3.3. Areas Not Suspected to Contain MEC

There were no other areas of concern identified based on the information obtained during the data collection process.

5.4. Munitions Constituents

Munitions constituents that are known to have been stored at PNS are listed below. Documentation indicating disposal of these items at the Navy Dumping Grounds was not found.

- Gun powder
- TNT (2, 4, 6-trinitrotoluene)
- Torpex (a mixture of 37-41% TNT, 41-45% RDX [cyclonite, cyclomethylene, trinitramine], and 18% aluminum). Torpex is a common filler of 7.2 inch Hedgehogs and Mk 14 torpedoes.

5.5. Receptors

Human receptors include recreational and commercial fishermen and boaters. Ecological receptors include biota.

5.6. Conceptual Site Model

This Conceptual Site Model (CSM) was developed following guidance documents issued by the USEPA for hazardous waste sites and the U.S. Army Corps of Engineers (USACE) for ordnance and explosives (OE) sites. Guidance documents included the USEPA's Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA (EPA/540/G-89/004) and the USACE CSM Guidance Development of Integrated Conceptual Site Models for Environmental Ordnance and Explosives (OE) Sites, which was final as of February 2003.

The CSM describes the site and its environmental setting. The CSM presents information regarding: 1) MEC and/or MC known or suspected to be at the site; 2) current and future reasonably anticipated or proposed uses of the real property; and 3) actual, potentially complete, or incomplete exposure pathways that link them. The CSM is the basis for the risk evaluation, prioritization, and remediation cost estimate.

The CSM is presented in a series of information profiles that presents information about the site. The information profiles are included in Table 5-1 below.

Table 5-1: Conceptual Site Model Information Profiles – Navy Dumping Grounds

Profile Type	Information Needs	Preliminary Assessment Findings
Range/Site Profile	Installation Name	Portsmouth Naval Shipyard
	Installation Location	Kittery, Maine
	Range/Site Name	Navy Dumping Grounds
	Range/Site Location	18.5 miles east of York Beach, Maine
	Range/Site History	It is suspected that this area was used for the disposal of unserviceable munitions in the 1940s, 1950s, and 1960s. Following Navy policy and guidance of the time, unserviceable ammunition was routinely disposed of by dumping at sea.
	Range/Site Area and Layout	The area has been approximated as a circular area with a 2.5 mile radius whose center is located at latitude 43°13'30" North, longitude 70°09'30" West.
	Range/Site Structures	Not applicable
	Range/Site Boundaries	The area has been approximated as a circular area with a 2.5 mile radius whose center is located at latitude 43°13'30" North, longitude 70°09'30" West.
	Range/Site Security	No security or access restrictions – open water area.
Munitions/ Release Profile	Munitions Types	Documentation clearly identifying munitions disposal at the site was not found.
	Maximum Probability Penetration Depth	Open ocean dump site – depth estimated at 60 fathoms.
	MEC Density	Entire area is considered a suspected MEC area.
	MEC Scrap/Fragments	Unknown
	Associated Munitions Constituents	Unknown
	Migration Routes/Release Mechanisms	Area is located in open waters. There is the high potential that any munitions cases have corroded over the years, exposing the explosive fillers and other constituents to the open water. The extent of potential releases is unknown.
Land Use and Exposure Profile	Current Land Use	Open water
	Current Human Receptors	Recreational and commercial fishermen and boaters
	Current Activities (frequency, nature of activity)	Commercial and recreations fishing (including lobster harvesting) and some boating

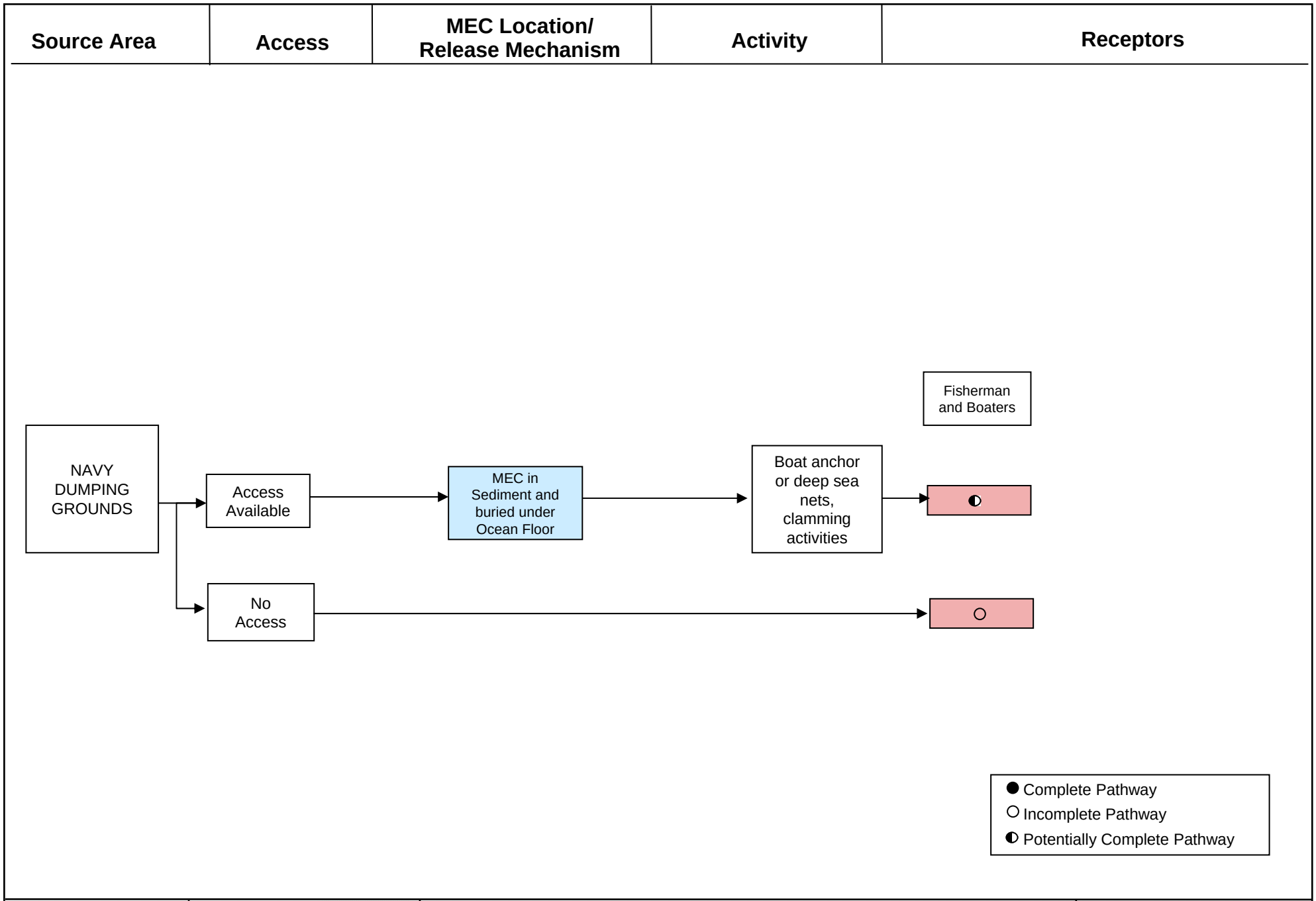
Table 5-1: Conceptual Site Model Information Profiles – Navy Dumping Grounds		
Profile Type	**Information Needs**	**Preliminary Assessment Findings**
	Potential Future Land Use	No foreseen change to current use
	Potential Future Human Receptors	Fishermen or boaters who may anchor in the area
	Potential Future Land Use-Related Activities:	No foreseen change to current use
	Zoning/Land Use Restrictions	None in place
Ecological Profile	Beneficial Resources	Open water
	Habitat Type	Deep sea
	Degree of Disturbance	Minimal to none
	Ecological Receptors	Biota
	Federal Endangered Species:	Fish and marine mammals in Atlantic Ocean, including lobsters and other crustaceans. In addition to indigenous species, the U.S. Fish and Wildlife listed the following endangered species associated with a water environment for the State of Maine. ▪ Sea turtle, leatherback (Dermochelys coriacea) ▪ Whale, finback (Balaenoptera physalus) ▪ Whale, humpback (Megaptera novaeangliae) ▪ Whale, right (Balaena glacialis (incl. Australis) ▪ Salmon, Atlantic Gulf of Maine Atlantic Salmon DPS (Salmo salar) ▪ Sturgeon, shortnose (*Acipenser brevirostrum*)
	Relationship of MEC/MC Sources to Habitat and Potential Receptors	Exposure pathways of MEC and MC to the open ocean and human receptors have been identified as potentially complete on the outside chance that ordnance items may be present at the Navy Dumping Grounds.

A key element of the CSM is the exposure pathway analysis. For MEC, a complete or potentially complete exposure pathway must include the following components: 1) a source (e.g., locations where MEC are expected to be found); 2) access (e.g., controlled or uncontrolled access, items on the surface or within the subsurface); 3) an activity (e.g., non-intrusive grounds maintenance or intrusive construction); and 4) receptors (e.g., Navy personnel, construction workers, recreational

users or authorized visitors). It is important to recognize that environmental mechanisms (e.g., erosion) and/or human intervention may result in the repositioning of MEC. Figure 5-1 presents a graphical illustration of potential MEC exposure pathways.

For MC, a complete or potentially complete exposure pathway must include the following components: 1) a source (e.g., locations where MC are expected to be found); 2) an exposure medium (e.g., surface soil); 3) an exposure route (e.g., dermal contact); and 4) receptors (e.g., Navy personnel, construction workers, recreational users or authorized visitors). If the point of exposure is not at the same location as the source, the pathway may also include a release mechanism (e.g., volatilization) and a transport medium (e.g., air). Figure 5-2 presents a graphical illustration of potential MC exposure pathways.

The potential interactions between the source and receptors are assessed differently between MEC and MC. For MC, interaction between the source and receptors involves a release mechanism for the MC, an exposure medium that contains the MC, and an exposure route that places the receptor into contact with the contaminated medium. For MEC, interaction between the potential receptors and an MEC source has two components. The receptor must have access to the source and must engage in some activity that results in contact with individual MEC items within the source area.



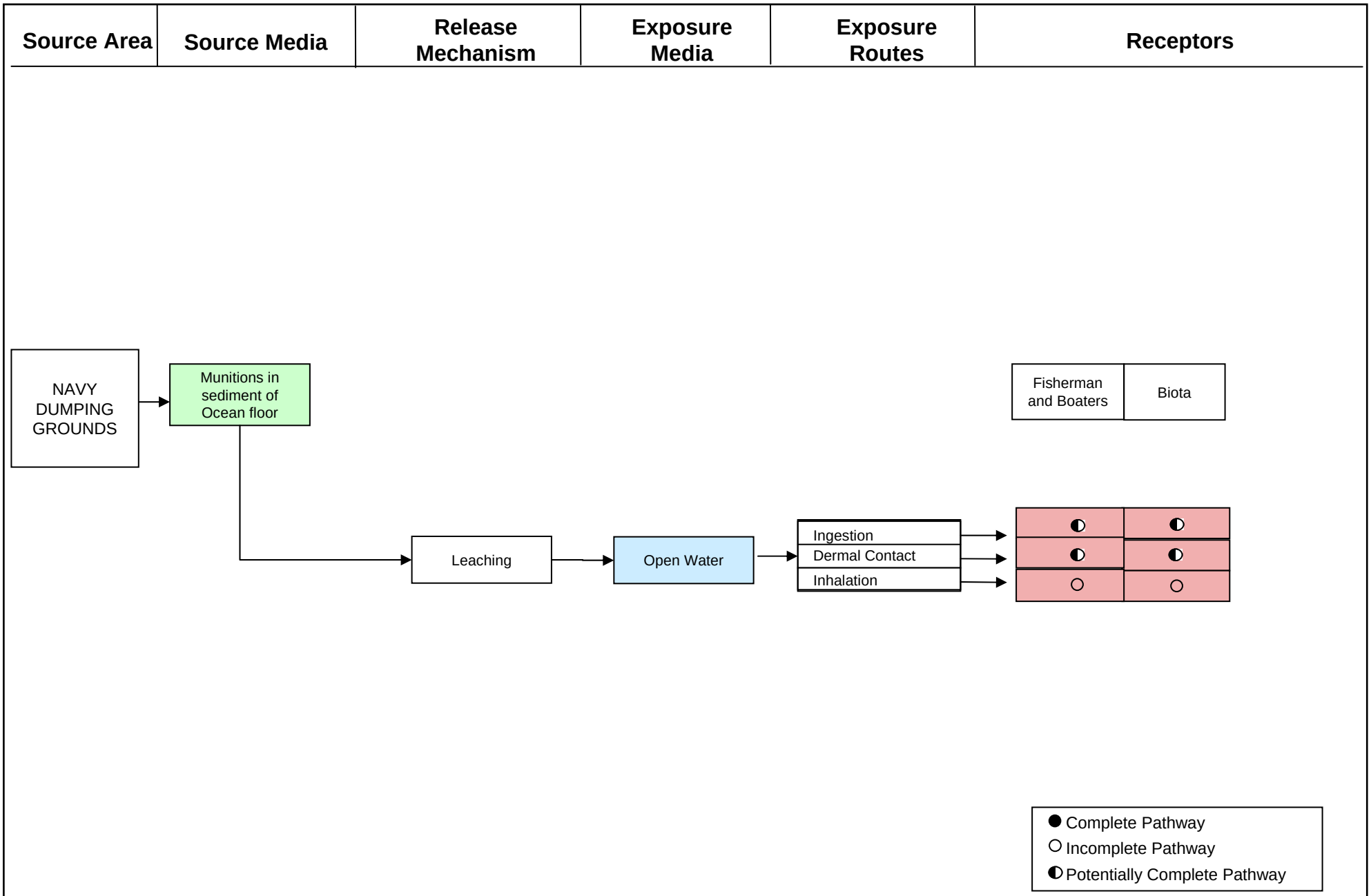
MALCOLM PIRNIE

Prepared for:

WATER AREA MUNITIONS STUDY – FINAL REPORT
NAVY DUMPING GROUNDS
MEC EXPOSURE PATHWAY ANALYSIS
PORTSMOUTH NAVAL SHIPYARD, MAINE

MALCOLM PIRNIE, INC.

FIGURE 5-1 FINAL
June 2005



MALCOLM PIRNIE

Prepared for:

WATER AREA MUNITIONS STUDY – FINAL REPORT
NAVY DUMPING GROUNDS
MC EXPOSURE PATHWAY ANALYSIS
PORTSMOUTH NAVAL SHIPYARD, MAINE

MALCOLM PIRNIE, INC.

FIGURE 5-2 FINAL
June 2005

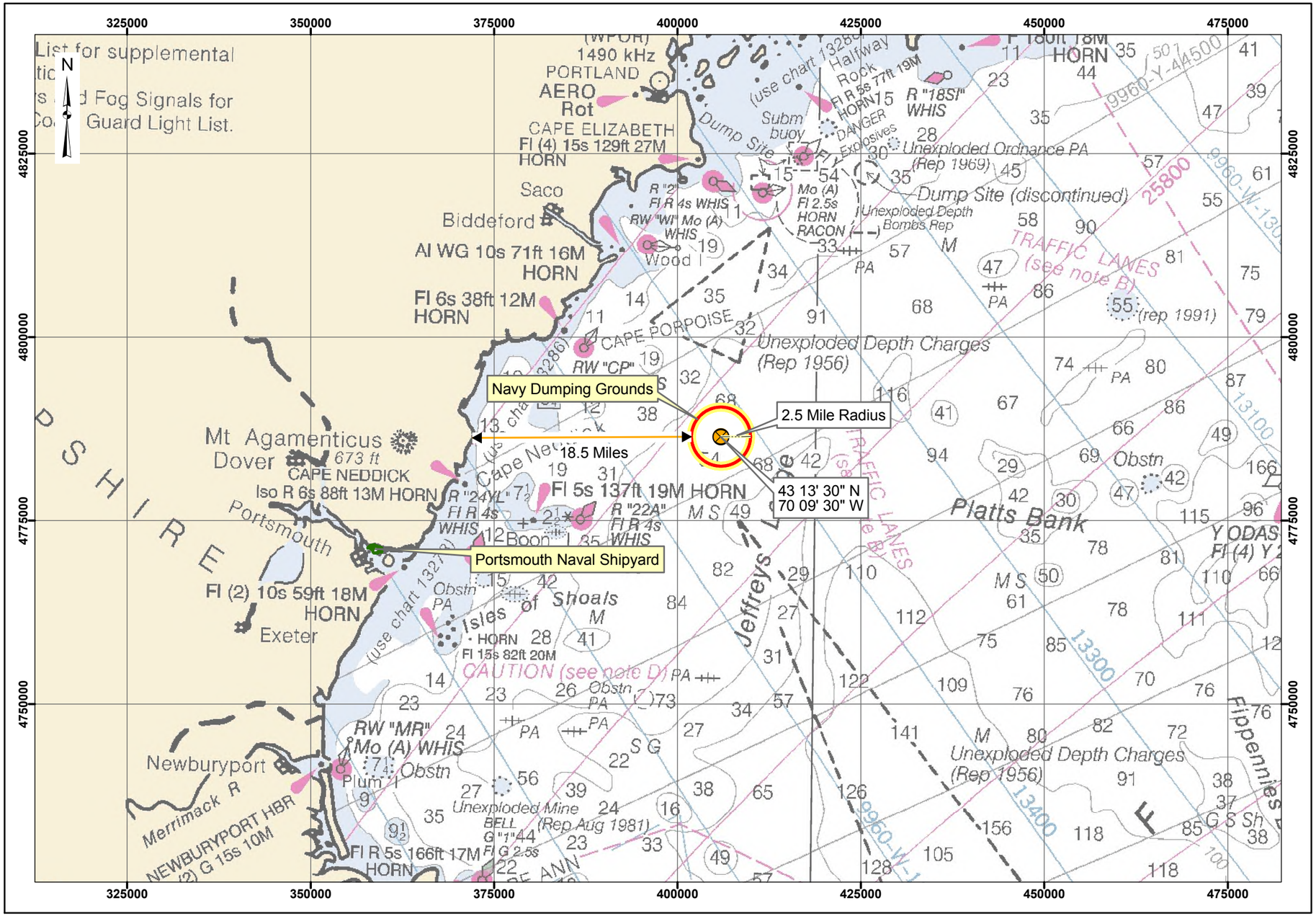
5.7. Summary

The Navy Dumping Grounds is a deep water disposal area associated with the Portsmouth Naval Shipyard and is located approximately 18.5 miles east of York Beach, Maine. The estimated depth of the area is approximately 60 fathoms. The extent of the area is estimated as a circle with a 2.5 mile radius whose center is located at latitude 43°13'30" North, longitude 70°09'30" West (as noted in a 3 July 1944 document).

A search of archival records did not reveal documents clearly identifying the use of the Navy Dumping Grounds for specific munitions disposal. However, shipyard log books from 1945 indicate that tug boats were used to dump ordnance from PNS at sea. Records dating from 1929 to the late 1970s document storage and handling of munitions at PNS. Furthermore, Navy policy in the 1940s and 1950s permitted the disposal of unserviceable ammunition in areas of deep water.

Various munitions and munitions constituents are known to have been stored at PNS, including 7.2 inch Hedgehogs, Mk 11-2 depth charges, fixed and small arms ammunition, various types of gas generators, high explosives, law rockets, torpedoes and detonators, grenades, gun powder, TNT, and Torpex. Documentation indicating disposal of these items at the PNS deep water disposal area was not found.

The waters around the area are used by recreational and commercial fishermen and boaters. Although documentation of munitions dumping at the Navy Dumping Grounds was not found, exposure pathways of MEC and MC to the open ocean and human receptors have been identified as potentially complete on the chance that ordnance items may be present at the Navy Dumping Grounds. A significant volume of ordnance would need to be present in order for the MC exposure pathways to be present.



Water Area Munitions Study
Portsmouth Naval Shipyard
Kittery, ME

MALCOLM PIRNIE

Map 5-1
Range/Site Details
Navy Dumping Grounds

Legend

- Installation Boundary
- Lat/Long Coordinates
- Navy Dumping Grounds

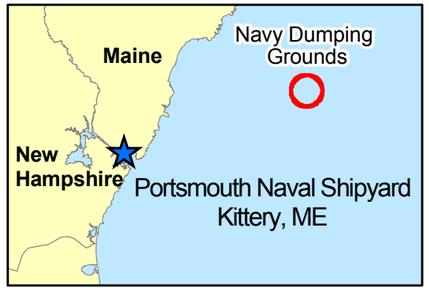
Note: Estimated Range Boundary Location

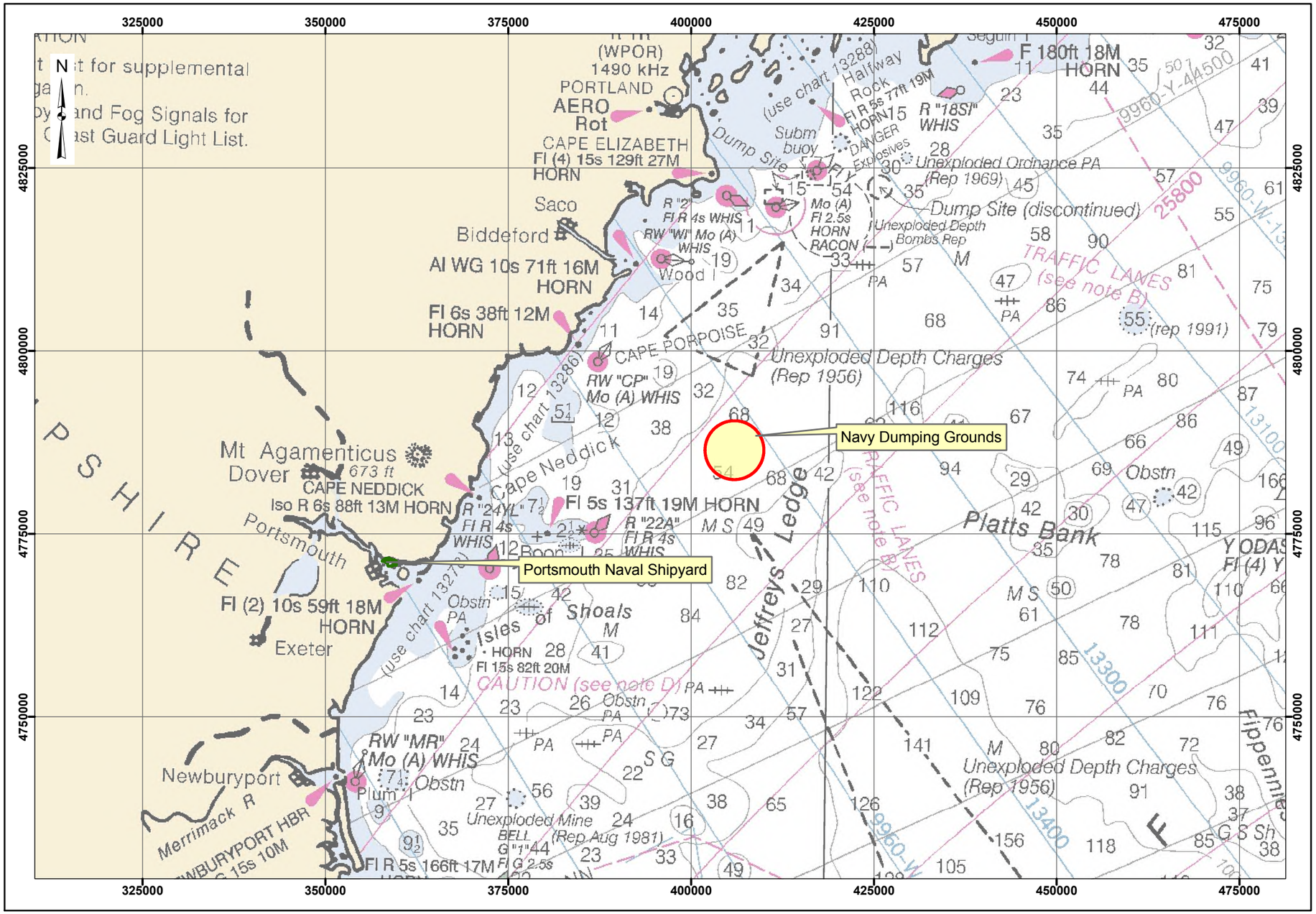
0 5 10 15 20 Miles

Data Source: NOAA
CAPE SABEL TO CAPE HATTERAS, 2003
Copyright 2002 Maptech, Inc.

Coordinate System: UTM Zone 19N
Datum: NAD 83
Units: Meters

Contract: N62472-02-D-1300
Edition: Final Water Area Munitions Study
Date: May 2005





Water Area Munitions Study
Portsmouth Naval Shipyard
Kittery, ME

Map 5-2
Munitions Characterization
Navy Dumping Grounds

Legend

- Installation Boundary
- Navy Dumping Grounds

MEC Presence *

- Known
- Suspect

Note: Estimated Range Boundary Location

* MEC Presense was determined through review of historical documentation, interviews, and/or visual survey.

0 5 10 15 20 Miles

Data Source: NOAA
CAPE SABEL TO CAPE HATTERAS, 2003
Copyright 2002 Maptech, Inc.

Coordinate System: UTM Zone 19N
Datum: NAD 83
Units: Meters

Contract: N62472-02-D-1300
Edition: Final Water Area Munitions Study
Date: May 2005

Appendix A: References

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Aerial Photographs:

1) Aerial Photograph, June 1929.

2) Aerial Photograph, undated (no later than 1943).

3) Aerial Photograph, March 15, 1943.

4) Aerial Photograph, July 11, 1945.

5) Aerial Photograph, September 24, 1953.

6) Aerial Photograph, September 24, 1953.

7) Aerial Photograph, September 24, 1953.

8) Aerial Photograph, July 21, 1941.

9) Aerial Photograph, 1960.

Photographs:

1) Photographs from the 1900s – Portsmouth Naval Shipyard.

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1) Portsmouth Naval Shipyard Home Page: http://www.ports.navy.mil/

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5) U.S. Fish and Wildlife Service:
http://ecos.fws.gov/tess_public/TESSWebpageUsaLists?state=ME

Maps:

1) Map of U.S. Navy Yard Portsmouth, N.H. showing conditions on June 30, 1928.

2) Map of U.S. Navy Yard Portsmouth, N.H. showing conditions on June 30, 1931.

3) Map of U.S. Navy Yard Portsmouth, N.H. showing conditions on June 30, 1935.

4) Map of U.S. Navy Yard Portsmouth, N.H. showing conditions on June 30, 1939.

5) Map of U.S. Navy Yard Portsmouth, N.H. showing conditions on June 30, 1940.

6) Map of U.S. Navy Yard Portsmouth, N.H. showing conditions on June 30, 1943.

7) Map of U.S. Navy Yard Portsmouth, N.H. showing conditions on June 30, 1949.

8) Location Plan – Utilities. Addition for Polaris Launch System Overhaul, November 11, 1961.

9) U.S. Naval Complex Portsmouth, New Hampshire Existing Conditions Map, February 20, 1963.

Appendix B: Project Source Data – General

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[redacted]

ORDNANCE PAMPHLET 5 [Vol. 1]

[FIRST REVISION]

AMMUNITION ASHORE

10 JUNE 1944

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Chapter 8

SURVEILLANCE, INSPECTION OF SMOKELESS POWDER AND MAINTENANCE, SALVAGE AND DESTRUCTION OF EXPLOSIVES AND AMMUNITION

General	1360
Surveillance	1361–1364
Stability Tests of Smokeless Powder	1365–1367
Maintenance	1368–1370
Salvage	1371–1372
Special Safety Regulations for Maintenance and Salvage	1373–1381
Destruction of Explosives and Ammunition	1382–1384
Special Safety Regulations for the Destruction of Explosives and Ammunition	1385–1406
Destruction of Specific Materials	1407–1443

General:

1360. This section contains general safety requirements and outlines of approved practices for surveillance of explosives, inspection of smokeless powder, and maintenance, salvage, and destruction of explosives and ammunition. Detailed procedure of inspections and tests will be found in appropriate sections of this manual.

Surveillance:

1361. The term "surveillance" as used herein includes the observation, inspection, investigation, and test of explosives and ammunition in storage and use; inspection of containers and buildings in which they are stored; and the inspection of facilities and methods used in storing, handling, shipping, maintaining, renovating, salvaging, and destroying explosives and ammunition.

1362. The purpose of surveillance is to detect in stores of explosives and ammunition all conditions tending to increase deterioration or danger; to determine the state or nature of deterioration and the degree of serviceability, and to segregate seriously unstable munitions.

1363. The Bureau of Ordnance exercises general supervision over the surveillance of all explosives and ammunition in storage and service; prescribes the tests, technical methods of inspections to be made; and maintains records of the condition of all lots in service and storage.

1364. The Commanding Officer of an ordnance establishment is responsible to the Bureau of Ordnance that all ammunition and explosives at his establishment are subjected to proper surveillance; that the results of surveillance tests and inspections are promptly reported; that the Bureau of Ordnance has a record by lot number of the condition of all ammunition and explosives on hand.

Stability Tests of Smokeless Powder:

1365. Any nitrocellulose powder will gradually decompose at high temperatures, and as the temperature increases above 70° F., the rate of decomposition increases with corresponding rapidity. At ordinary temperatures, such as are found in magazines, the decomposition of serviceable powder is very slow; but it may be expected that any smokeless powder will deteriorate in the course of time. As decomposition proceeds, the ballistic qualities of the powder become impaired, and decomposition gradually continues to the point where spontaneous ignition may occur.

1366. In order to estimate the remaining life of smokeless powder so that it may be used while still serviceable, and to insure withdrawal of

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1380. *7.* Broken boxes, loose powder or explosives, waste paper, and other combustible materials shall not be permitted to accumulate.

1381. *8.* The layout and construction of plants used for maintenance operations shall be in conformity with the safety standards prescribed for filling houses and loading plants.

Destruction of Explosives and Ammunition:

1382. Explosives and ammunition which are dangerously deteriorated or which cannot be economically salvaged shall be destroyed. Destruction of explosive material shall be accomplished by burning, exploding, or dumping at sea, as specified in following paragraphs of this section. Burying explosives, or ammunition, or dumping them into waste places, pits, wells, marshes, shallow streams, or inland waterways is prohibited except as may be authorized under the provisions of paragraphs 1407 and 3052 for black powder and chemical ammunition, respectively.

1383. Destruction shall not be undertaken without prior approval except that Commanding Officers may order the immediate destruction of dangerously deteriorated explosives or ammunition when, in their opinion, such action is necessary to protect life or property.

1384. The methods prescribed for the destruction of chemical ammunition are contained in Chapters 24–30 of this manual under special rules for the various classes of chemical fillers.

Special Safety Regulations for the Destruction of Explosives and Ammunition:

1385. *1.* All dry grass, leaves, and other combustible materials shall be removed within a radius of 200 feet from the point of destruction. Fire-fighting facilities for combatting grass fires should be maintained readily available, and if practicable, the ground at the point of destruction should be wet down with water at the close of each day's operation.

1386. *2.* Explosives and ammunition shall not be destroyed by detonation if magazines and other buildings are in danger of being damaged by fragments or shock. If the distance from the place of destruction to magazines or buildings is less than 800 yards, a pit or trench which will limit effectively the range of fragments shall be used.

1387. *3.* Demolition of explosives may be accomplished by the use of electric blasting caps with hand exploders (blasting machines) or by nonelectric blasting caps and safety fuze.

1388. *4.* The signal for detonation shall be given by one designated responsible individual only, who, before each detonation, shall insure that all persons in the vicinity are protected by substantial cover or have reached a safe distance. If a blasting machine is used, the wires shall not be connected to the terminals until all personnel have reached cover.

1389. *5.* If nonelectric blasting caps and miners' safety fuze are to be used the fuze shall be first tested at follows: A piece of fuze, 12 inches long, will be cut from the roll to be used and burned to determine the approximate time rate of burning in order that sufficient length of fuze will be used to permit all personnel to retire to a safe distance. The rate of burning of fuze varies with atmospheric conditions, degree of tightness of tamping, etc. Fuze which is too large in diameter to enter the blasting cap without forcing will not be used.

1390. *6.* Electric blasting caps are exploded by an electric current. Nonelectric blasting caps are exploded by flames or sparks from safety fuze. Both types of caps are copper cylinders loaded with very sensitive and violent explosives, and must be handled with extreme care. The use of improvised methods for exploding blasting caps is prohibited.

1391. *7.* One-half pound TNT blocks, one-quarter pound or one-half pound blocks of nitrostarch explosives are provided for demolition purposes. These blocks must not be broken into smaller pieces.

1392. *8.* Material to be burned shall always be removed from containers, as attempts to burn certain explosives or ammunition, under even slight confinement, may result in explosions.

1393. *9.* The amount of material to be destroyed at one time shall be kept at the minimum consistent with reasonable and safe operation. The

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explosives are being burned. Consequently, it is important that a place be chosen for burning which is far enough away from dwellings, railroads, highways, or other places where people may assemble, to eliminate the possibility of injury to persons, or damage to property, should an explosion occur.

1406. 22. Every precaution must be taken when destroying explosives or blasting supplies to make certain that only one type is destroyed at a time. Explosives being burned must be examined carefully to make certain no detonator or blasting cap of any kind is included. Any attempt to burn high explosives when caps of any description are included will almost certainly result in an explosion.

Destruction of Specific Materials:

BLACK POWDER:

1407. The safest method of destroying black powder is to dump it into a stream or body of water, but if no suitable body of water is convenient, it may be burned. In opening containers, safety tools only will be used. The contents of one container only shall be burned at one time. The powder must be removed from the container and spread out on the ground in a trail about 2 inches wide, care being taken that no part of the trail parallels another part at a distance of less than 10 feet. A train of inflammable material, such as excelsior, should be used to ignite the powder. Emptied containers shall be washed out, as serious explosions have occurred with supposedly empty black-powder cans.

BULK HIGH EXPLOSIVES:

1408. Bulk high explosives, such as dynamite, TNT, explosive "D", amatol, RDX, Compositions "A", "B", and "C", torpex, and tetryl should be destroyed by burning. The explosive to be burned shall be removed from containers and spread in layers not over 2 inches thick upon a layer of combustible material, such as excelsior. A train of this material should be used to ignite the explosive. Not more than 200 pounds will be burned at one time. Burning of explosive scrap should be done on dirt surfaces. Concrete, gravel, or cinder surfaced plots should be prohibited. RDX Compositions "A", "B", and "C" may also be destroyed by heating a fluffy or fine material in water with an excess of sodium hydroxide (enough excess to make the solution strongly alkaline). Applicable safety regulations contained in paragraph 1675 will be observed. If it becomes necessary to destroy other explosives, such as fulminate of mercury, special instructions will be furnished. Operator's buildings and explosive-storage huts at burning ground should be protected from the burning area by barricades. Where windows are considered necessary in such buildings, they should be glazed with cello-glass or similar shatterproof, flexible material.

1409. Small amounts of dynamite can be destroyed by exploding them in a safe place, but this is not usually practical where larger quantities are involved. The most satisfactory method of destroying dynamite is by burning, which can be done safely, provided certain precautions are taken. It is advisable to limit the amount of dynamite burned at any one time to not more than 100 pounds, and local conditions may make it necessary to reduce this quantity materially. Permissible gelatins are particularly prone to detonate on burning, so not more than 10 pounds should be destroyed at any one time.

1410. Dynamite should never be burned in cases or deep piles. The cases should be opened with wooden mallets and wedges, using special care in this operation if there are any signs of leakiness. The cartridges should be removed, slit, and spread over the ground, preferably with a mat of loose paper or excelsior underneath them. In no case should the layer of dynamite exceed 2 or 3 inches in thickness. Some dynamites are difficult to ignite, hence it is necessary to have combustible fuel beneath the cartridges. If the dynamite is wet and does not burn readily under these conditions, it may be necessary to pour a little kerosene over it. The pile should be ignited by a small pilot fire of paper, wood shavings, or other kindling material, arranged so that the fire will have to burn several feet before it reaches any explosive material. This will allow the operator ample time to reach a place of safety before there is any possibility of an explosion. It is also recommended that the kindling be arranged so that it can be ignited against the wind. After lighting

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the pile fire, all persons should retire immediately to a safe place until the dynamite has completely burned.

1411. When more than 100 pounds of dynamite (10 pounds of Permissible Gelatins) must be destroyed, a new space should be selected for each lot, as it is not safe to place dynamite on the hot ground of the preceding burning. As soon as all dynamite has been destroyed, the ground where the material was burned should be plowed. The residue from burning dynamite contains salts which may be eaten, with serious results by cattle.

SMOKELESS POWDER:

1412. Smokeless powder may be destroyed with safety by burning. The powder shall be removed from containers and spread out on bare ground in a train. The train should be limited in width and thickness, depending upon the granulation and type of powder. Safe dimensions are determined by starting with a small quantity and increasing this progressively until the maximum quantity which may be safely burned at one time is reached. The best method is to make a straight row of powder 3 or 4 feet wide and 6 inches deep. The row should be laid out so as to point into the wind. The powder is wet down with a hose before igniting the pile. If powder is dry, it will burn very rapidly, and the person setting the fire may not have time to escape without being burnt. A few pounds of dry powder are then placed on the windward end of the wet powder and ignited in any convenient way, preferably by using a piece of burning, oil-saturated waste, attached to a stick about 6 or 8 feet long. The powder may also be burned when dry, provided a train of combustible material about 25 feet long on the windward end of the pile is used to ignite the powder. General safety regulations contained in paragraphs 1760–1765 will be observed.

PROPELLING CHARGES:

1413. Separate loading propelling charges should be removed to the burning ground to be destroyed. Bags shall be cut open carefully. The smokeless powder shall be properly spread, and burned, as described in paragraph 1412.

1414. The ignition ends shall be destroyed by first cutting the ends open and removing the black powder. The powder then shall be destroyed as prescribed in paragraph 1407. The empty powder bags, including the empty ignition ends, shall be disposed of by burning in small quantities.

PROJECTILES:

1415. The following procedure refers to separate loaded projectiles. Fixed ammunition rarely deteriorates to such an extent that it must be destroyed rather than salvaged, but where such action is necessary, projectiles disassembled from fixed rounds shall be destroyed in the same manner as prescribed below for separate loaded projectiles.

1416. *1.* When a range or similar large area is not available for the safe destruction of separate loaded projectiles by detonation, a pit or trench about 4 feet deep should be used. By covering the projectile with 2 or more feet of earth the range of fragments may be reduced.

1417. *2.* The projectile to be destroyed is placed on its side in the pit and the required number of demolition blocks will be placed in intimate contact with the side of the projectile and held in position by earth packed around the projectile.

1418. *3.* The following table indicates the number of demolition blocks which should be sufficient to destroy projectiles of the calibers listed:

Caliber Of Projectile	*Number Of Demolition Blocks*
37 mm., 40 mm., and 6 pdr.	1
3 inch	2
4 inch to 6 inch	3
8 inch	3
10 inch to 16 inch	6

1419. *4.* After the last shot the ground in the vicinity shall be searched for any unexploded material. Any such material found shall be destroyed by repeating the operations outlined above.

1420. *5.* The general safety regulations for the destruction of ammunition given in this manual shall be complied with.

MORTAR AMMUNITION AND HIGH-CAPACITY PROJECTILES:

1421. Mortar ammunition and high-capacity

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projectiles should be destroyed in accordance with instructions for destroying projectiles as set forth in paragraphs 1415–1420. However, mortar ammunition and high-capacity projectiles contain a larger bursting charge than other types of projectiles of the same caliber and relatively thin walls. Care should be taken to limit the number destroyed at any one time and to protect projectiles awaiting destruction from flying fragments.

BOMBS:

1422. Bombs should be destroyed in accordance with instructions set forth in paragraphs 1415–1420 for destroying projectiles. However, demolition bombs have such thin walls, contain so much more explosive than projectiles of corresponding weights, and usually detonate so completely that extreme precautions must be taken to avoid structural damage to buildings and injury to personnel. The destruction of bombs larger than 100-pound bombs should not be undertaken without specific approval. Bombs in the immediate vicinity awaiting destruction should be segregated in small piles 100 feet or more apart and at least 300 feet from the detonating pit. Extreme precautions must be taken to protect bombs awaiting destruction against accidental initiation by fire, fragments, or propagation.

SMALL-ARMS AMMUNITION:

1423. Small-arms ammunition should be destroyed in a pit which is approximately 6 feet square and 4 feet deep. An inclined chute, such as a piece of pipe, should be provided, and this chute should be placed so that one end is over the center of the pit and the other behind a barricade. Precautions should be taken to baffle the open end behind a barricade, or locate it so that the operator cannot look down the pipe. A hot fire should be built in the pit and then the pit should be covered with a piece of sheet iron or other suitable material to confine flying fragments. Cartridges should be fed into the fire through the pipe. Care should be taken to prevent an accumulation of unexploded ammunition in the pit.

FUZES, DETONATORS, BOOSTERS, ETC.:

1424. *1.* Loaded components, such as projectile fuzes, grenade fuzes, boosters, detonators, and similar material, except primers, may be destroyed either by burning or by exploding. In the destruction by burning, these components will be destroyed one at a time in the same manner as outlined above for small-arms ammunition.

1425. *2.* In accomplishing the destruction of these components by explosion, a small number of components, depending upon the type and kind, should be placed in an open container in a pit or trench about 4 feet deep. On top of each container, and in intimate contact with them, should be placed one or more demolition blocks to be exploded with electric blasting caps or with blasting caps and safety fuze, observing the safety precautions outlined in paragraphs 1373–1381.

1426. *3.* The following method of destruction of unserviceable fuzes, H. E., mine, antitank, M1, has been developed and found to be satisfactory.

1427. Select a secluded site for the destruction operations as far from magazines, public roads, railroads, navigable streams, or inhabited buildings as circumstances will allow. The available safety distances shall determine the number of fuzes that may be destroyed at one time as based on actual fragment distances reported from destruction of fuzes in quantities, together with recommended minimum safety distances for each, as set forth herewith:

1428. Where pile is covered with earth:

	Approximate Fragment Distance	*Recommended Minimum Safety Distance*
12 fuzes	200 yds.	400 yds.
56 fuzes	350 yds.	525 yds.
152 fuzes	525 yds.	800 yds.
702 fuzes	525 yds.	800 yds.
Where pile is not covered with earth:		
702 fuzes	800 yds.	1,200 yds.

1429. *NOTE:* Other quantities may be selected for detonation at one time, although 702 was adopted as reaching the upper limit of efficiency in piling.

1430. Handle all fuzes with extreme caution and with striker end up between storage point and destruction area.

1431. Make a double pyramid pile, in the quantity selected for destruction, as permitted by para-

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graph 1427–1429 above, with the bottom row on level ground, or preferably, on a wooden board, 1" x 6" is suitable, of length sufficient to carry the bottom row of the pile. Place the fuzes on the side with the rows base to base, in intimate contact, and with the projecting portions of the safety fork fitted into the grooves carrying the same component in the adjacent fuzes. The pile should have a very slight lean to the rear, the back of the pile being supported by lumber with the stakes driven into the ground, to assure continued contact between the fuzes and supporting lumber if they are to be detonated without being covered with earth. If the pile is to be covered with earth, no slight lean is necessary, but the earth support should be brought up with the preparation of the pile in order to assure against loss of contact between the fuzes.

1432. When the pyramid has been completed, place two No. 6 electric blasting caps side by side, and, if necessary, lightly taped to hold them in position, between the bases of the two top fuzes in such a manner that the end of the cap is about the center of the base of the fuze, or a very little lower. A slight "mudcapping" of the caps is considered desirable if carefully applied. Nonelectric blasting caps and safety fuzes may be used if electric caps and equipment are not available. The two caps, with a suitable length of tested safety fuze crimped to one, should be placed side by side and, if necessary, lightly taped around the top to hold them together and in position. The pile is then ready for detonation.

1433. *4.* The normal safety regulations as to blocking off all approaches, testing of safety fuze (if used), daily testing of electric lines and firing devices before use, taking off cover by personnel before detonation, examination of pit or surrounding area for unexploded fuzes or fragments, preparations for fire-fighting if necessary, etc., should be carefully observed.

PRIMERS:

1434. In the destruction of small primers (Mk. 10 and Mk. 14 and other marks that have an ignition charge of less than 30 grains of black powder), a trench approximately 2 feet deep, 1 foot wide, and of sufficient length to accommodate the number of primers to be burned at one time, should be prepared with a quantity of excelsior or similar combustible material sufficient to insure a hot fire throughout its length. The primers should be removed from boxes and placed on the excelsior before the fire is lighted. Pasteboard cartons need not be opened before they are placed in the trench. A piece of sheet metal should be placed over the trench, to confine fragments as much as possible. Sufficient space should be left to allow a draft through the trench. After the primers and cover are in place, a train of combustible material leading into the pit should be prepared and lighted. Personnel should then take cover or withdraw to a safe distance.

1435. Large primers, such as 30 grain (Mk. 15 and Mk. 16), 110 grain (Mk. 14), and 205 grain (Mk. 13), are subject to explosion en masse if destroyed in large quantities by burning. These types should be destroyed as described in paragraph 1423 above, except that only one primer shall be dropped down the chute, and the operator shall wait until it has exploded before introducing another primer into the chute.

1436. The stock of primers awaiting destruction shall not be allowed within 300 feet of the burning operations, and great care shall be taken to protect the pile from accidental ignition by flying fragments or sparks. This stock shall be limited to a day's supply. Other applicable regulations, contained in paragraphs 1373–1381 should be strictly observed.

GRENADES:

1437. Fragmentation grenades may be destroyed by explosion in a manner similar to that prescribed for separate loaded projectiles. Quantities of not more than 20 grenades shall be piled in close contact in the pit. Three demolition blocks placed on top of the pile should be sufficient to accomplish destruction.

1438. The destruction of white-phosphorus-loaded grenades, rifle and hand, bombs and pyrotechnics shall be accomplished as follows:

1439. A pit should be prepared about two feet square and not less than three feet deep. On the bottom of the pit sufficient fuel should be placed to insure a hot fire, and not more than fifty grenades should be placed on top of this combustible

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material. Care should be taken to insure that detonators to be destroyed are assembled in the grenades. The fire should now be lighted and all personnel should retire to a safely barricaded shelter or to a distance of not less than 100 yards, as detonations may occur scattering the burning phosphorus for a considerable distance in all directions. After the fire is lighted no attempt should be made to investigate the pit until the fire has burned entirely out and the pit is cold.

PYROTECHNICS:

1440. Pyrotechnics, except parachute flares and photoflash bombs, shall be destroyed by burning in a pit in a manner similar to that prescribed for primers. Parachute flares shall be destroyed by burning on the ground in the open. Individual flares should be separated by a distance of at least 4 feet and placed on top of a layer of combustible material. After lighting the train of combustible material, personnel should take cover or withdraw to a safe distance. Photoflash bombs shall be destroyed as prescribed in paragraphs 1415–1420 for projectiles.

CHEMICAL DESTRUCTION:

1441. Explosions have occurred when rejected detonators were being immersed in a kettle filled with a chemical which destroyed the explosive and allowed the salvage of metal parts.

1442. Chemical destruction of explosives or ammunition (except small amount of material such as lead azide, mercury fulminate, and nitroglycerin, for which specific provisions are made) shall not be permitted unless prior approval is given by the Bureau of Ordnance.

1443. *NOTE:* Information covering the destruction of hazardous raw materials, explosives, not covered in this section, and inflammables will be found in Chapter 23 of this manual.

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be transported to a site down wind from the magazine area ashore pending disposition. At sea the leaker should be dumped overboard, immediately if convenient, otherwise it should be kept in an airtight magazine or compartment pending disposition. Dumping leakers overboard is subject to the restrictions noted in paragraph 3052 below.

3045. *Repairing Leakers:* When a bomb is found to be leaking around a plug or valve, every effort shall be made to stop the leak by tightening the plug or valve. If tightening will not stop a leak around a plug or valve, and if a trained chemical ammunition officer is available, he may supervise the removal, repair, and replacement of the leaking plug or valve. Repair of leaks around the outside threads of a plug or valve may be accomplished by removing the plug or valve, retinning the threads with soft solder, cooling, and replacing tightly. White lead luting must never be used on threads of surfaces of any components of AC or CC-loaded 1000-lb. gas bombs, as such luting is likely to affect the stability of the filler. If leakage cannot be stopped by repairing the plug or valve and if the threads in the bomb body are still satisfactory, a new plug or valve (with tinned threads) shall be installed. Under no circumstances other than the case noted above in this paragraph shall any fitting other than the shipping plugs in the fuze cavities be removed for any purpose. If the leak cannot be stopped, the bomb must be removed from the magazine and disposed of.

3046. *Repaired Munitions:* Munitions in which the leaks have been stopped in such manner as in the opinion of the officer in charge of the magazine or shipment, renders them serviceable for continued storage, may remain in the magazine.

REMOVAL AND DISPOSITION OF LEAKING MUNITIONS:

3047. *Supervision:* Munitions which cannot be repaired satisfactorily with the facilities at hand should be disposed of under the direct supervision of a competent officer.

3048. *Large Quantities:* If a large number of munitions are involved, the magazine should be ventilated, placed under guard, and the Chief of the Bureau of Ordnance notified by dispatch. Only such munitions as are leaking rapidly enough to constitute a menace should be immediately destroyed in this case.

3049. *Protection:* A gas mask and protective gloves should be worn by all personnel handling leaking munitions filled with nonpersistent toxic gas. Care must be taken so that toxic liquid does not come in contact with skin or clothing.

3050. Extreme care shall be exercised at all times in the disposal of leaking or otherwise defective toxic gas munitions.

3051. *Disposal:* If the number of leaking munitions is small they should be disposed of by one of the following methods:

3052. *1.* In situations where leaking munitions can be dropped into deep ocean water, this is the preferred method of disposal. Good judgment must be exercised in utilizing this method, because there have been instances where ammunition thrown overboard in heavy containers has washed up on shore from considerable distances and depths. Chemical munitions should not be dumped overboard within 10 miles of shore or in water less than 50 fathoms deep.

3053. *2.* Because of the hazards involved in any extensive transportation of leaking or otherwise defective AC-loaded bombs, disposal by dumping in deep water will be impracticable except at coastal stations where water transportation is immediately available. If dumping in deep water is not practicable, disposal should be accomplished by demolition or emptying the bomb. Disposal by emptying may be carried out in a less isolated area than is required for disposal by demolition, but emptying requires considerably more time than demolition. Disposal by emptying has an additional advantage in that it does not require personnel skilled and experienced in the use of explosives.

3054. *Disposal by Demolition:* Disposal by demolition will be accomplished in the following manner:

3055. *1.* Transport the leaking or defective bomb to an isolated open area at least two miles in every direction from any area that may be fre-

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quented by personnel and sufficiently removed from magazines to eliminate danger from the blast and fragments. If such a location does not exist, the most suitable location shall be chosen and all personnel warned away for a radius of two miles in all directions for at least one hour after detonation of the static firing charge.

3056. *2.* Dig a trench or pit about six feet deep by six feet long by three feet wide. Place the bomb in this trench.

3057. *3.* Connect an electric detonator or blasting cap to the burster tube in such manner as to insure detonation of the burster on firing of the cap or detonator. (Note: If the burster is not available, place six (6) one-half pound TNT or nitrostarch demolition blocks against the side of the bomb, at least two to be in intimate contact with the bomb body and the balance to be in contact with the first two, held in place by earth around the bomb. Connect an electric detonator or an ordinary blasting cap to the demolition blocks.)

3058. *4.* Lead electric blasting cable to a blasting machine located not less than four hundred (400) yards up wind from the bomb. The blasting machine should be placed behind a barricade providing adequate cover both from the front and overhead. If an ordinary blasting cap with safety time fuze is used, the fuze should be of sufficient length to afford the person lighting it ample time to reach and take shelter behind the barricade.

3059. *5.* In the event that the area between two and six miles down wind from the demolition site is inhabited, qualified personnel having gas masks and equipped with detector equipment (either detector paper or detector tubes) should be stationed at several points approximately two miles down wind from the bomb in the direction of the inhabited area. After the explosion of the bomb these personnel should test the atmosphere for gas for a period of one hour. If any freak concentrations of gas which might be capable of causing casualties are detected, the personnel in the area up to six miles down wind from the demolition site shall be warned to mask or evacuate the down wind area.

3060. *6.* After all preparatory measures have been carried out, personnel engaged in the demolition operation will take shelter behind the barricade (if time fuze is used, all personnel except the person actually lighting the fuze shall take shelter before the fuze is lit, and will put on gas masks). The bomb will then be detonated. Personnel shall not remove masks while within two miles of the point of detonation for a period of at least one hour after detonation and shall have masks in a position of readiness for at least two hours. Personnel beyond two miles and within six miles down wind should carry masks in a position of readiness for at least one hour after detonation.

3061. *7.* In the case of a misfire at the time an attempt is made to detonate the bomb, a hangfire shall be suspected and personnel shall not leave the barricade for at least 30 minutes. If a time fuze is used, and a misfire declared or suspected, gas masks shall be carried at all times within two miles of the bomb and, as a precaution against a possible hangfire, no one shall be permitted within 400 yards of the bomb, for a period of twenty-four hours. Electric firing is preferred and shall be used wherever practicable.

3062. *8.* Under no circumstances shall disposal by static firing be attempted except during the day, with a clear sky and bright sun, or with gusty winds that will tend to dissipate the gas. The hazards to personnel in surrounding areas from a toxic gas cloud from a bomb detonated under unfavorable weather conditions far outweigh the hazards involved in postponing disposal for more favorable weather. When weather conditions force the postponement of disposal of a leaking or otherwise defective bomb, the proper trench shall be dug and the bomb deposited therein until the advent of favorable condition. During the time that such bomb may be so deposited, the general area shall be suitably guarded.

3063. *Precautions in Destruction by Explosions:* In all demolition work the following general instructions will be carefully observed:

3064. *1.* Destruction will not be accomplished by demolition unless it is certain that nearby buildings will not be damaged by fragments or shock. If the distance from the place of destruction to any building is less than 800 yards, a pit, trench, or bombproof which will effectively limit the range of fragments, will be used.

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3065. *2.* When an artillery range, or similar site, is available the use of a pit may not be necessary, as a layer of earth 2' thick is usually sufficient to limit the range of fragments.

3066. *3.* The signal for detonation will be given only by one designated responsible individual, who will each time insure that all persons in the vicinity are protected by substantial cover.

3067. *4.* The destruction of chemical munitions by explosion requires very careful control by those in charge. Such work will not be attempted with inexperienced or untrained personnel. The number of persons engaged in such operations will be maintained at the minimum consistent with safety. All personnel engaged in such work will carry gas masks in a position of readiness.

3068. *Disposal by Emptying:* Disposal by emptying will be accomplished in the following manner:

3069. *1.* Transport the leaking or defective bomb to an isolated open area at least 800 yards (one-half mile) in every direction from any area that may be frequented by personnel. If such a location does not exist the most suitable location shall be chosen and all personnel warned away for a radius of at least one-half mile in all directions until disposal operations have been completed.

3070. *2.* In the event that the area between one-half and one mile down wind from the disposal site is inhabited, qualified personnel having gas masks and equipped with detector equipment (either detector paper or detector tubes) should be stationed at several points approximately one-half mile down wind between the bomb and the inhabited area. These personnel will test the atmosphere for gas during the period in which the bomb is being emptied. If any freak concentrations of gas which might be capable of causing casualties are detected, the personnel in the area up to one mile down wind from the disposal site should be warned to mask or evacuate the down wind area.

3071. *3.* After all preparatory measures have been carried out and the bomb positioned with the plugs or valve uppermost, the bomb should be opened, and the filling allowed to boil away. AC and CC bombs can be opened by carefully opening the sampling valve. In the case of CG bombs, the filling plug should be carefully removed. In unscrewing the filling plug in a CG bomb, it is important to back the plug out slowly and to pause for several minutes at successive stages of the unscrewing operation to allow the pressure within the bomb to reduce to atmospheric. This precaution will prevent toxic liquid or gas from blowing out of the hole when the plug is removed.

3072. *4.* Under warm conditions (air temperature above 70° F.) the total amount of CG, AC, or CC in a 1000-lb. bomb will boil away in a few hours. Wind of any appreciable velocity is sufficient to cause dilution of the gas as it comes out of the bomb and to render all areas down wind beyond the immediate vicinity of the bomb safe from the effects of the gas.

3073. *5.* Under colder conditions (air temperature below 70° F.) evaporation of the gas in a 1000-lb. bomb will be so slow that it will probably be necessary to remove the valve or filling plug from the bomb and carefully rotate the bomb 180° so as to allow the filling to run out onto the ground and evaporate. Rotation on the bomb can be safely accomplished at a distance by the use of a line around the bomb.

3074. *6.* In the case of an AC-loaded bomb in which the filling is in a very dangerous stage of decomposition, opening the valve to dispose of the filling in accordance with the above instructions will prevent any further danger from explosion. Cooling the bomb with a water spray can be used to accomplish the same result while such a bomb is being removed to the disposal site.

3075. *Magazine Ventilation:* The magazine from which a leaking toxic gas bomb has been removed should be thoroughly ventilated until no trace of agent is detectable in the atmosphere within the magazine.

3076. *Report:* When leakers or damaged munitions are disposed of, a report should be made to the Bureau of Ordnance. This report should, in general, contain the following data:

1. Lot number, Mark number, and filler of munition.
2. Date discovered.
3. Disposition.

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4. Detailed information as to the nature of the leaks and whether they appeared to have been caused by defective material or improper handling.

5. Any other pertinent information as called for by the individual case.

Removal of Spilled Material:

3077. In case materials of group A-1 have leaked from projectiles or containers and contaminated the floor or other containers, the treatment to be used shall be as outlined in paragraphs 2917–2946 of this chapter under the description of the material involved.

3078. Gas masks and protective gloves must be worn while removing group A-1 chemical fillings which have been spilled.

Fire in Magazines:

3079. The same precautions shall be observed for fires in areas containing group A-1 chemical ammunition as were outlined in Chapter 4 and under paragraph 2915 for fires in group A magazines, except that the danger to personnel down wind from the fire is less in the case of group A-1 ammunition than in the case of a fire involving group A munitions.

3080. Any projectile or container which has been exposed to fire should be considered dangerous and made the subject of special inspection to ascertain its condition. A report should be made to the Bureau of Ordnance and instructions requested.

H.O. Pub. 931

FLEET GUIDE

PORTSMOUTH, NEW HAMPSHIRE

Fifth Edition
1971

Prepared under the direction of the Department of Defense and published
by the U.S. NAVAL OCEANOGRAPHIC OFFICE, Washington, D.C. 20390

CHAPTER 5
LOGISTICS
ORDNANCE—GENERAL

5-1 Ordnance Responsibility
5-2 Facilities and Services
5-3 Ammunition Handling Operations
5-4 General Ordnance Information
5-5 Supply Department, Portsmouth Naval Shipyard
5-6 Facilities and Services
5-7 Fuel and Water
5-8 General Supply Information

General.—Chapter 5, composed of two separate naval functions and various commands, is now included in the general heading of logistics. Ordnance, consisting of weapon facilities and services, is described in sections 5-1 through 5-4 and general facilities and services in sections 5-5 through 5-8.

5-1 ORDNANCE RESPONSIBILITY, PORTSMOUTH NAVAL SHIPYARD

General

An Ordnance Officer is not included in the organization of the Portsmouth Naval Shipyard. Ordnance work, including technical control and inspection, is the responsibility of the Planning and Production Officer, but the supervision thereof may be delegated to Division Superintendents and Assistant Division Superintendents for such work as is performed in the Planning and Production Departments of the Shipyard.

5-2 FACILITIES AND SERVICES

Storage Facilities

The Shipyard has only limited ammunition storage facilities. Temporary storage for the following types of ammunition can be provided:

Pyrotechnics and small arms ammunitions.

The Shipyard has no facilities for the storage of ship's ammunition allowances, high explosives, or torpedo warheads.

The Shipyard ammunition storage area, consisting of several igloos, is assigned the mission of providing storage for safekeeping of small arms ammunition and pyrotechnics for ships under construction or overhaul at the Shipyard and local naval activities.

The Security Superintendent of the Shipyard is the officer in charge of ammunition storage arrangements. He is assisted by a Magazine Supervisor.

Care of Ammunition and Explosives in Storage

See Commander, Portsmouth Naval Shipyard Instructions.

Procuring or Disposal of Ammunition

The Shipyard Security Superintendent should be informed of all pending arrangements. (See Chapter 5, H.O. Pub. 908, Fleet Guide, Boston.)

Removal of Ammunition

Ships which require the removal of ammunition must obtain permission from the Shipyard Administrative Officer for transportation. The Operations Superintendent must also be informed verbally of proposed ammunition transfers and estimated time of completion.

Prior to the movement of any ammunition, the Administrative Officer will confer with the commanding officer of the ship regarding the safety precautions to be followed.

5-3 AMMUNITION HANDLING OPERATIONS

Policy

OPNAV INST 8023.2 series established the general policy to govern the peacetime handling of ammunition and explosives in continental port areas.

The policy for handling cargo ammunition, and ammunition allowances for ships not

carrying cargo ammunition, in First Naval District ports, is set forth in COMONE INST 8023.1 series, and states that the loading and discharging of such ammunition will be performed only at designated ordnance facilities or explosives anchorages, except in cases of emergency or as otherwise provided in the Instruction.

Ammunition handling for submarines and surface ships up to tender size is permitted within the Shipyard.

Ammunition allowances for ships will not be off-loaded to piers unless suitable transportation is standing by to effect prompt transfer to magazines or other destination, nor is ammunition to be brought alongside until the ship is ready to receive. Ammunition types which may be handled at the piers will be limited to compatable ammunition of one class with the following quantity restrictions:

Class 1 material—Unlimited amounts.

Class 2 material—300 lbs. net explosive.

Class 3 through 6 material—20 tons gross weight (not to exceed 2,000 lbs. net H.E. content).

The ammunition hazard classes used above are listed as follows:

Fire Hazard

Class 1—Small arms ammunition without explosive projectiles; fuze lighters and squibs; distress signals; 20 mm ammunition without explosive projectiles; colored smoke grenades; and explosive valves or switches.

Class 2—Military pyrotechnics; solid propellants in bulk, in containers, or in ammunition items; CRB items.

Combined Hazard

Class 3—Small arms ammunition with explosive bullets; fixed ammunition with non-explosive projectiles when caliber and packing limit the hazard; WP smoke hand grenades.

Class 4—Fixed and semi-fixed ammunition, rockets and components; chemical ammunition containing explosive elements.

Class 5—"D" loaded projectiles; fixed and semi-fixed ammunition, rockets and components; chemical ammunition containing explosive components.

Class 6—Separate loading projectiles containing high explosives other than explosive "D"; fixed and semi-fixed ammunition, rockets and components; chemical ammunition containing explosive components.

The loading or off-loading operation will be carried out promptly. Proper safeguards and precautions must be observed and the vicinity cleared for at least 500 feet from the loading or unloading point of hazards due to other explosives, volatiles, and specially inflammable materials.

Tenders, when loading their own allowances and allowances for ships supported, upon completion of Shipyard availability, or when discharging these allowances before commencing an availability, shall be regarded as handling cargo ammunition. The loading and discharging of cargo ammunition at the Shipyard is not authorized, except in cases of emergency.

Fueling with Navy Special Fuel Oil, Diesel Oil, and JP-5 is permissable at the same time ammunition is being handled, provided the two evolutions are not being performed at the same pier.

Ammunition Handling in Drydock

Ammunition will not be handled on board ships in drydocks.

Instructions for Submarines

Submarines ordered to the Portsmouth Naval Shipyard for overhaul or other availability shall off-load torpedoes prior to arrival.

Transportation of Ammunition

Ships will make arrangements with the Security Superintendent for the transportation of ammunition within the Shipyard. The Security Superintendent will confer with the commanding officer of the ship concerned with regard to the safety precautions to be followed during the movement of ammunition.

Commanding officers of ships are responsible for providing adequate personnel and for being ready in all respects at the time specified by the Security Superintendent for the handling of ammunition.

The Repair Superintendent will be responsible for providing adequate personnel at times specified by the Security Superintendent for off-loading and loading operations.

The Material Superintendent will be responsible for providing sufficient packers with all the necessary material for boxing and shoring ammunition at time of off-loading. He will also provide for transportation of ammunition at the times and places specified by the Security Superintendent.

General Instructions

When the Shipyard is requested by a commanding officer to handle ammunition, the Security Superintendent will carry out the following procedures:

Arrange for transportation within the Shipyard in sufficient time to insure the proper inspection of employed vehicles.

Request the commanding officer of the ship concerned to be ready in all respects with proper personnel to off-load or receive ammunition.

Ammunition Regulations

The commanding officers of ships berthed or docked at the Shipyard shall insure that all ammunition in the ship shall be kept within regularly assigned magazine stowages with the following exceptions:

Ammunition for ship's security small arms may be kept readily available to the extent necessary.

Commanding officers of ships are responsible to insure that no live ammunition is placed in refuse receptacles.

No smoke-producing apparatus employing chemicals shall be charged or discharged within the limits of the Shipyard.

These regulations shall not be construed as modifying Instructions of CNO, Commandant First Naval District, NAVORDSYSCOM, or other competent authority with regard to handling of all explosives within the Shipyard.

Safety Precautions

Ammunition handled must be limited to that issued to or received from only one ship alongside at a time.

Containers of ammunition or explosives shall not be tumbled, dragged, thrown, or dropped on each other, on the floor, or deck.

All ammunition or explosives not encased in a container shall be suitably boxed, crated, or tanked prior to storage or handling.

If dynamite cases are damaged in transit resulting in loose dynamite between cases or on the floor, every chance of friction against the loose dynamite shall be avoided. Any loose dynamite shall be carefully swept up and poured on the ground a considerable distance from the cases of explosives and burned.

Explosives and detonators shall be handled carefully (no bale hooks or other metal tools shall be used); protected against shock or friction; protected from fire, flame, or sparks; protected from moisture; and wires of electric detonators, if not short-circuited, shall be kept from contact with stray electrical currents or electrically charged surfaces.

High explosives, blasting caps, or electric blasting caps shall not be left exposed to the direct rays of the sun.

Packages of explosives or blasting caps shall not be left uncovered.

Detonators shall not be placed in close proximity to warheads, boosters, or any other types of ammunition, and shall be carried as a separate shipment, or properly sandbagged.

All vehicles used for transporting ammunition or explosives in the Shipyard shall be escorted by a security vehicle. The security vehicle shall remain a distance of approximately 100 feet behind the transporting vehicle. In the event of fire on the transporting vehicle, the civilian guard will immediately notify the driver and summon the fire fighters via radio, telephone, or ring fire alarm. The civilian guard will then direct the evacuation of all personnel from nearby buildings, and the officer in charge at scene will extend the evacuation radius as considered necessary. All traffic will be stopped or rerouted into safe areas.

Vehicles from an outside activity desiring to enter the Shipyard with ammunition or explosives shall not be admitted until authorized by the Security Superintendent. If practicable, all such vehicles will enter by Gate No. 2 to avoid passing through the industrial area of the Shipyard.

Warning Signals

A red flag (BRAVO) shall be hoisted at the foremast on a ship whenever handling ammunition.

There will be no smoking or open flame during any ammunition handling. "No Smoking" signs will be posted.

A red flag, 24-inches square, shall be displayed on transportation equipment, both vehicles and waterborne, while loading, off-loading, or transporting ammunition or explosives, as follows:

From the bow of each boat, lighter, and other craft

On each side of a railroad car

On each side of a vehicle

Fire Protection

Before ammunition or explosives are transported within the Shipyard, the custodian shall notify the Fire Chief and Chief of the Security Guard of the route and destination of the vehicle. The Fire Chief shall be ready to respond with the chemical truck and any other equipment necessary.

The Fire Chief shall insure that the vehicle transporting ammunition or explosives within the Shipyard is equipped with not less than two 15-pound CO fire extinguishers located at convenient points on the vehicle, filled and ready for immediate use. Each extinguisher shall be weighed and checked daily before dispatching the vehicle for use in transporting ammunition or explosives.

5-4 GENERAL ORDNANCE INFORMATION

Explosives Dumping Area

The explosives dumping area assigned to the First Naval District is an area 10 miles square with its center situated in about 41°33′ N., 65°33′ W., and is located about 240 miles east-southeastward of Portsmouth.

Care must be exercised in dumping materials of this type to insure that none of the articles dumped will float and possibly drift ashore. (See N.O. Chart 13006.

Dumping Grounds

The two Dumping Ground Areas, within the Gulf of Maine, are situated as follows:

The waters of the Gulf of Maine within an area off Portland, Maine, with its center in about 43°34′00″ N., 70°01′48″ W., bounded by a line extending 210° (T) to Portland Lightship and within rays bearing 262° (T) and 277° (T), respectively, to Cape Elizabeth Light, and extending eastward to 70° W.

The waters of the Gulf of Maine within an area off Portsmouth, New Hampshire, with its center in about 42°59′00″ N., 70°33′24″ W., lying northward of a line bearing 270° (T) to Isle of Shoals Light and within rays bearing 018° (T) and 028° (T), respectively, to Boon Island Light. The northern boundary is that portion of the minor arc of a circle having a radius of 8 nautical miles with its center on Boon Island Light and intercepted by the aforementioned rays. (See N.O. Charts 13116 and 13113.)

Regulations

These areas are used only for dumping suitable nonfloatable materials, not easily transported by currents.

Before dumping, prior permission is to be obtained from the District Engineer, in charge of the locality, who may suspend the work or revoke the permission at any time.

These regulations are enforced by COM EASTSEAFRON and such agencies as he may designate.

Dangerous Weapons

Naval personnel have been apprehended ashore for having dangerous weapons in their possession. These are almost invariably of foreign manufacture and origin, and possess none of the characteristics permitting their introduction as trophies, having neither historical nor artistic value. On the contrary, they are extremely dangerous, having no reliable safety features embodied in their design. Navy Regulations, Fleet Instructions, and the laws of the respective states are explicit regarding possession of dangerous weapons while in any ship or place under the jurisdiction of the Navy, procurement of such weapons when authorized, and transporting same ashore, respectively.

Commanding Officers are directed to impress upon all personnel that violation of these laws is severely punishable in the courts of the respective states.

5-5 SUPPLY DEPARTMENT, PORTSMOUTH NAVAL SHIPYARD

Administration

The Supply Officer is responsible to the Commander, Portsmouth Naval Shipyard, for the organization, administration, and supervision of the Supply Department, for the timely and economical accomplishment of all the work performed by it in accordance with Navy Regulations, Systems Command Manuals, existing directives, and for additional duties as the Shipyard Commander may assign.

He is responsible for the procurement, storage, maintenance while in storage, accountability, issue, preparation for shipment, and shipment of supplies and materials in his custody or subject to invoice, as required by

DEPARTMENT OF THE NAVY
PORTSMOUTH NAVAL SHIPYARD
PORTSMOUTH, N.H. 03801

IN REPLY REFER TO
NAVSHIPYD PTSMHINST
8023.1F (810)
27 Apr 1978

NAVSHIPYD PTSMH INSTRUCTION 8023.1F

From: Commander, Portsmouth Naval Shipyard

Subj: Ammunition and Explosive Material Handling Procedures

Ref: (a) OPNAV INST 8023.2A of 17 Jul 1975
(b) COMONE INST 8023.1F of 8 May 1973
(c) USN Ordnance Safety Precautions (Ordnance Pamphlet 3347)
(d) NAVORD OP5 Volume 1 (4th Rev)
(e) DIRSSPO OD 13926 of 3 Feb 1976
(f) NAVSEA INST 8020.9 of 16 Dec 1976

Encl: (1) Procedures for Ammunition and Explosive Material Handling at Portsmouth Naval Shipyard
(2) Restrictions on Ammunition and Explosive Material Handling at Portsmouth Naval Shipyard
(3) Requirements for Ammunition and Explosive Material Storage at Portsmouth Naval Shipyard
(4) Prerequisite List

1. Purpose. This instruction establishes procedures for the safe handling and storage of explosives including ammunition, pyrotechnics and gas generators at the Portsmouth Naval Shipyard.

2. Cancels. NAVSHIPYD PTSMHINST 8023.1E of 16 Apr 1976

3. Effective. 28 April 1978

4. Background. Reference (a) establishes the general policy to govern peacetime handling of conventional ammunition and explosives in continental port areas. Reference (b) implements reference (a) within the First Naval District. References (c) and (d) set forth safety and handling principles which must be observed at all times when ammunition transactions occur. Reference (e) sets forth safety and handling requirements for transportation and storage of gas generators for Poseidon missiles. Reference (f) provides guidance for implementation of the safety training requirements of references (c) and (d).

5. Policy.

a. Handling. All ammunition and explosive material handling at Portsmouth Naval Shipyard will follow the procedures outlined in enclosure (1) and be subject to the restrictions of enclosure (2).

7. Safety. Safety in ammunition and explosive material handling is most important. The procedures listed in this instruction are designed to ensure the safety of all handling evolutions. Should Explosives Ordnance Disposal (EOD) teams be needed they are available 24 hours per day at NAS, Brunswick, Maine, AUTOVON 476-2210 or Plattsburgh Air Force Base, AUTOVON 689-7186/7187.

8. Action. Personnel involved in the handling and storage of ammunition will ensure that the provisions of this instruction are followed and that any deviations are immediately brought to the attention of the Administrative Officer.

W. D. McDONOUGH

Distribution:
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Watch Office, Bldg 13

PROCEDURES FOR AMMUNITION AND EXPLOSIVE MATERIAL

HANDLING AT PORTSMOUTH NAVAL SHIPYARD

1. General. For convenience, the DOD Ammunition Hazard Classes excerpted from Chapter 5 of reference (d) are listed below.

a. The list of materials in each group is representative of the type of ammunition and explosives in that group but does not necessarily contain all of the items of that particular type.

FIRE HAZARD

CLASS 1.3 - Material is military pyrotechnics, solid propellants in bulk, in containers, or in ammunition items, CBR items. This includes Poseidon Gas Generators.

CLASS 1.4 - Material includes small arms ammunition without explosive projectiles, fuse lighters and squibs, distress signals, 20MM without explosive projectiles, explosive valves or switches.

b. Wherever used in this instruction, the term "explosive limit" is construed to mean the total amount of explosives that may be on or alongside the pier and aboard the ships and service craft involved at any time, exclusive, however, of quantities actually in ships' magazines.

c. The "net explosive weight" (NEW) refers to the weight of the explosives. To assist in the determination of the quantity of explosives involved in a transaction, the method of computing the explosive weights of the various classes of ammunition is shown below.

(1) Saluting charges. The NEW of the explosive.

(2) Small Arms Ammunition and Chemical Ammunition Not Containing White Phosphorus. No explosive limit is placed on the storage of these items.

(3) Pyrotechnics. Explosive limits in accordance with tables 7.2 and 7.2A (see footnote #2 to Table 7.2A and footnote #1 to Table 7.2 of reference (d).

d. Reference (b), among other items, authorizes the handling of ammunition at any pier in this Shipyard. A single ammunition handling transaction will be limited to compatible ammunition of one class with the following quantity restrictions:

(1) Class 1.4 material -- unlimited amounts
or
(2) Class 1.3 material -- 3000 lbs net explosive

This authorization does not include the handling of ammunition allowances for tenders or the transfer to tenders of ammunition allowance of vessels they support. Such allowances are classified as cargo ammunition and shall not be handled in this Shipyard.

2. Safety Precautions for ammunition and explosives handling.

a. Safety is an inherent responsibility of command; thus organization for safety must follow the chain of command. It is considered important that all personnel concerned recognize that required increased ammunition handling can be effected within approved acceptable safety hazards. This knowledge will reduce the possibility of error if operations are conducted with the greatest degree of explosive safety consciousness. Detailed safety precautions are prescribed in pertinent ordnance publications with primary regulations grouped in reference (c). They shall be integrated into ammunition handling transactions whenever conducted in this Shipyard.

b. Prior to conducting ammunition handling transactions, it is considered imperative that all personnel concerned take positive action by:

(1) Reviewing explosive safety directives, procedures and requirements in effect;

(2) Emphasizing to all concerned the need for increased attention to explosive safety;

(3) Remaining alert at all times to ensure compliance and enforcement of safety precautions.

3. Direction. Except for handling of gas generators which will be supervised by Code 190, all ammunition or explosive material handling evolutions will be supervised by the Military Support Officer (Code 810) or by an individual specifically designated by the Administrative Officer (Code 800) for that particular handling evolution. The handling evolution supervisor acts with the authority of the Administrative Officer and is responsible for ensuring that the provisions of this directive are followed. He will hold a safety meeting with cognizant representatives of each of the organizations involved in the handling evolution. Enclosure (4) to this instruction is a Prerequisite List which should be used.

4. Preparation. Prior to beginning any ammunition or explosive material handling evolution, the supervisor will contact the following people for approval, notification or preparation:

a. Administrative Officer (Code 800) - for permission to handle ammunition on a specified date.

b. Safety Director (Code 185) - to monitor the operation.

c. Fire Chief and Chief of Security Guard - for location of handling, reoute and destination of vehicles. They will provide required support vehicles.

d. Communications Officer - to secure transmitters at appropriate times during handling evolutions when notified by handling evolution supervisor.

e. Public Works Officer - to ensure that no gasoline or other flammable liquids are being transferred in the area of ammunition handling.

f. Commanding Officer of Ship receiving offloading ammunition - to ensure readiness of the ship to support this evolution. Hoist red flag (Bravo) at foremast during handling. Ensure that fire fighting equipment and other necessary safety precautions as outlined in reference (d) are provided. Brief crew prior to handling evolutions.

g. Material Division (Code 560) - to ensure readiness of packers and materials for boxing and shoring of ammunition at time of offloading.

h. Magazine Supervisor - to ensure readiness of magazine and to support handling evolution.

i. Ship Superintendent - to ensure that no welding or burning operations are permitted on board the ship during the ammunition handling or within 100 feet of the handling area. Preparing two fire hoses in the immediate area on the pier with water charged to the hose nozzle. These hoses will have the capability of reaching all areas of the designated handling area.

j. Supervisor of Handling Evolution - to ensure posting of signs designating handling area.

5. Transportation. All transportation of ammunition on the Shipyard will involve the following safety precautions:

a. Vehicles transporting ammunition and/or explosives will be placarded in accordance with Chapter 10, Reference (d).

b. Vehicles transporting ammunition will be equipped with at least two 15-pound CO_2 fire extinguishers located at convenient points on the vehicle. Each extinguisher will be weighed and checked daily before dispatching the vehicle for use.

c. Except for those movements involving only limited quantities of small arms ammunition and submarine pyrotechnics, escort vehicles will be provided as follows:

(1) One security vehicle leading the ammunition truck.

(2) Fully equipped fire department escort following at a distance of approximately 100 feet.

d. Vehicles from an outside activity desiring to enter the Shipyard with ammunition or explosives shall not be admitted until authorized by the Military Support Officer (Code 810). If practicable, all such vehicles will enter by Gate No. 2 to avoid passing through the industrial area of the Shipyard. In the event such a vehicle arrives after normal working hours it will be parked adjacent to or inside the Jamaica Island magazine area and be properly secured until offloading can commence. While it is parked, it will be checked frequently by the security guard patrol.

6. Handling.

a. Conventional ammunition will be handled in accordance with references (a), (c) and (d).

(1) Ammunition handled must be limited to that issued to or received from only one vessel alongside at a time.

(2) Containers of ammunition or explosives will not be tumbled, dragged, thrown or dropped on each other, on the floor, or deck.

(3) All ammunition or explosives not encased in a container will be suitably boxed, crated, or tanked prior to storage or handling.

(4) Fueling operations or handling of oxygen or other hazardous materials will not be performed at the same pier with explosive handling operations. Fueling and hazardous materials may be handled at any other pier at least 100 feet away.

(5) At any time that the transfer of hazardous ordnance material is planned at a pier, all ships which may be berthed at that pier will be alerted and all transient personnel will be restricted from the pier area.

b. Gas Generators.

(1) All personnel assigned will be thoroughly familiar with the safety precautions outlined in this procedure and its references, especially reference (e).

(2) All handling equipment, tools and components required will be on station, tested and certified as required by Chapter 8 of reference (d).

(3) Gas generators will not be stacked more than two high. If the gas generators are stacked, the containers must be fastened together securely.

(4) Crated gas generators shall not be handled with a forklift without fastening the containers securely to the frame of the forklift.

(5) Ensure that all equipment capable of radiating greater than five watts of electromagnetic energy within 25 feet of the gas generators (including along the path of travel) is secured. Escort vehicles (i.e., Fire Department, Security, Shipyard Watch Officer) will maintain communications via portable walkie talkies on the KENNARD network, provided they are at least five feet away from the ordnance. All communication equipment within the escort vehicles will be secured.

7. Securing. Upon completion of the handling evolution, the handling evolution supervisor will ensure that the ship's Commanding Officer, the Administrative Officer, Security Officer, Chief of the Fire Department and Magazine Supervisor are notified that the handling is complete. The Industrial Watch Officer shall also be informed when appropriate.

RESTRICTIONS ON AMMUNITION AND EXPLOSIVE MATERIAL HANDLING

AT PORTSMOUTH NAVAL SHIPYARD

1. Ammunition will not be handled on board vessels in dry dock.

2. Ammunition will not be offloaded to a pier until authorized by the Military Support Officer (Code 810).

3. The Military Support Officer will not authorize offloading of ammunition until suitable transportation is standing by to effect prompt transfer to ammunition storage areas or other appropriate distances.

4. The Military Support Officer will not authorize commencement of handling operations until the ship is prepared to receive ammunition.

5. Movement of gasoline or other fuels in bulk or in drums will not be permitted at the same pier while ammunition is being handled.

6. No smoking is authorized on board the ship during handling evolutions or within 100 feet of the immediate handling area.

7. Handling gear must be certified as follows by Shop 72 riggers:

a. All handling gear must be of a design capable of handling a working load of at least 50% greater than the actual weight being handled.

b. Slings, pendants, strong backs and other related weapons handling equipment must be tested semi-annually to at least 200% of rated static load.

c. Mechanical endings must have a minimum breaking strength equal to the catalogue strength of the wire rope from which they are made.

d. All hooks must be of a safety type or moused. No open hooks shall be permitted.

e. To eliminate excessive drift, slings and pendants should be as short as practical.

f. All handling gear must be positively identified and serialized. See paragraph 8-6.3.2 of reference (d). Proof of certification test and dates must be available for verification.

8. No handling will take place without fire department equipment and security personnel being present on scene.

9. All handling areas must be clean, well-defined and properly identified with proper signs posted.

10. Pyrotechnics and ammunition normally should be handled over piers or wharves during daylight hours only. If, in case of an emergency, night time operations are required, the requirements of paragraph 10-8.8.4 of reference (d) will be followed.

REQUIREMENTS FOR AMMUNITION AND EXPLOSIVE MATERIAL STORAGE

AT PORTSMOUTH NAVAL SHIPYARD

1. Under the Administrative Officer, the Military Support Officer (Code 810) is responsible for ensuring the security of the ammunition storage areas and compliance with directives of higher authority. He will designate a qualified Petty Officer as Magazine Supervisor who will have the following duties:

a. Take magazine temperatures as required.

b. Take action when temperatures exceed prescribed limits.

c. Maintain the ammunition storage area in accordance with directions of higher authority.

d. Receive, store and issue ammunition in the ammunition storage area as authorized or directed.

e. Maintain custody of all records pertaining to ammunition receipts and transfers.

f. Maintain records on storage facilities.

g. Maintain custody of the magazine keys during normal working hours, relinquishing the custody of magazine keys to the Shipyard Watch Officer by 1630 each working day.

h. Supervise maintenance of Shipyard ordnance equipment and small arms including spare parts.

2. Ammunition Storage Area. The Jamaica Island magazine area is designated as the location for the storage of ammunition. It is suitable for the stowage of the Shipyard allowance of small arms ammunition and saluting charges and limited amounts of small arms and pyrotechnics for submarines. or other vessels which may have requirements for training and sea trials. It will also be used for the storage of gas generators for further transfer to a submarine. Gas generators must be stored in accordance with the requirements of Sections 11 and 12 of reference (e).

3. Security and Access. The magazine area is to remain locked at all times unless work is in progress within this area, in which case the Magazine Supervisor will be in attendance. Shipyard Security Forces will periodically check to ensure that the security of the magazine area is maintained and take necessary action in the event that unauthorized access has been gained to the area. Keys will be maintained by the Magazine Supervisor during normal working hours and by the Shipyard Watch Officer at all other times.

PREREQUISITE LIST
FOR
LOADING OR OFF-LOADING AMMUNITION OR PYROTECHNICS
ABOARD SHIPS OR CRAFT
AT
PORTSMOUTH NAVAL SHIPYARD

		Responsible Code
1.	Review explosive safety directives, procedures and requirements in effect.	810 _____
2.	Brief shipyard explosives handling party on the safety precautions required by NAVSHIPYD PTSMHINST 8023.1 (series).	810 _____
3.	Ensure that no other high risk evolutions are being simultaneously conducted aboard ship.	SSO _____ S/F _____
4.	Ensure that no hot work (welding, burning, etc.) is being done within 100 ft of the explosive handling evolution--including the path of movement.	SSO _____ S/F _____
5.	Ensure that the smoking lamp is out within 100 ft of the explosive handling evolution--including the path of movement--and that the Bravo flag is displayed topside close to the brow.	S/F _____ 810 _____
6.	Ensure that the shipyard explosives handling party is ready in all respects to receive/deliver the explosives with transportation available pierside.	810 _____
7.	Ensure that ships force is ready in all respects to deliver/receive the explosives.	S/F _____
8.	For Gas Generator handling evolutions, ensure personnel assignments are proper and personnel qualified and certified in accordance with NAVSEAINST 8020.9 of 16 Dec 1976.	190 _____

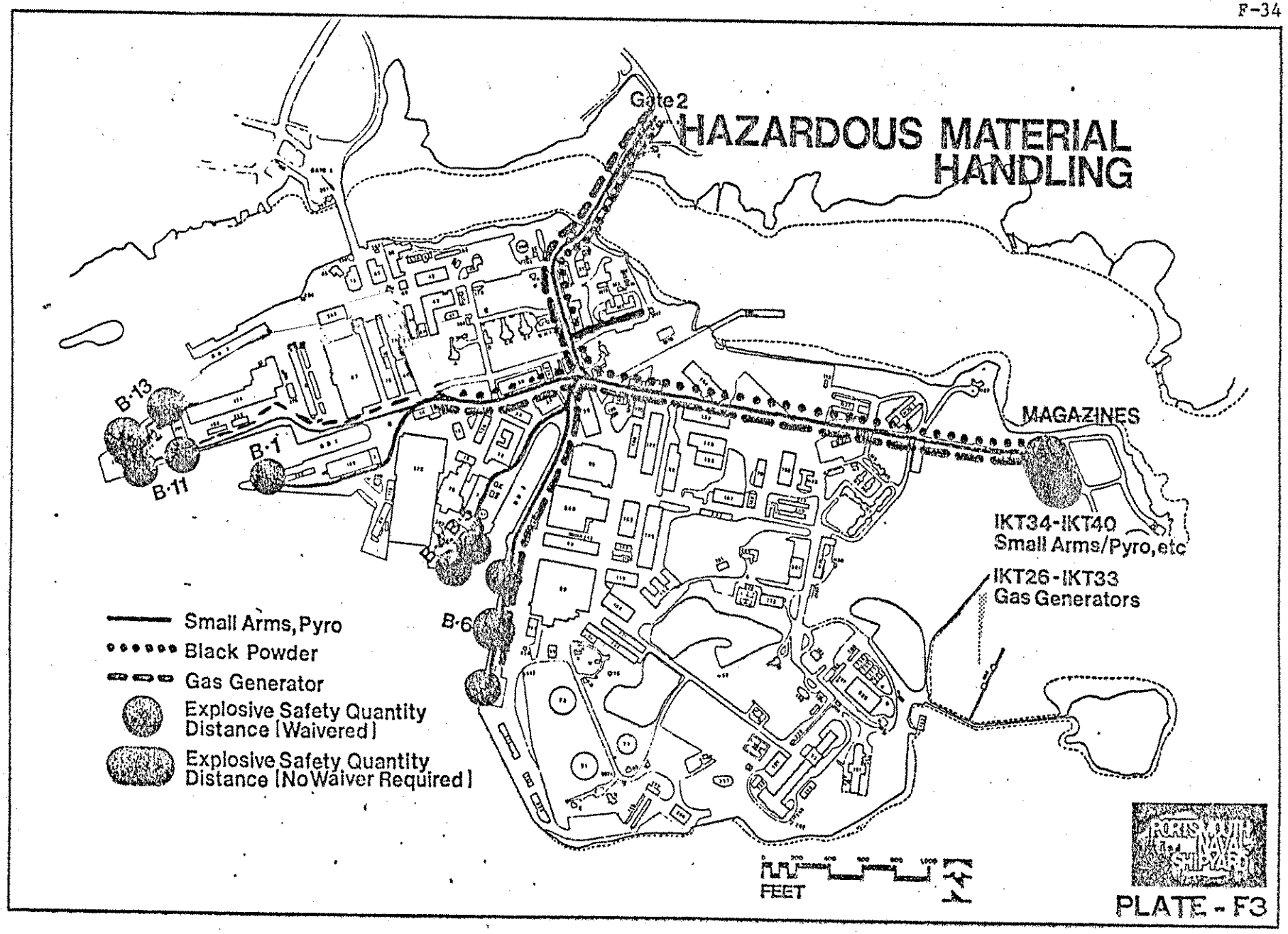

HAZARDOUS MATERIAL HANDLING
Gate 2
B-13
B-11
B-1
B-3
B-6
MAGAZINES
IKT34-IKT40
Small Arms/Pyro,etc
IKT26-IKT33
Gas Generators
Small Arms, Pyro
Black Powder
Gas Generator
Explosive Safety Quantity Distance (Waivered)
Explosive Safety Quantity Distance (No Waiver Required)
FEET
PORTSMOUTH NAVAL SHIPYARD

PLATE - F3

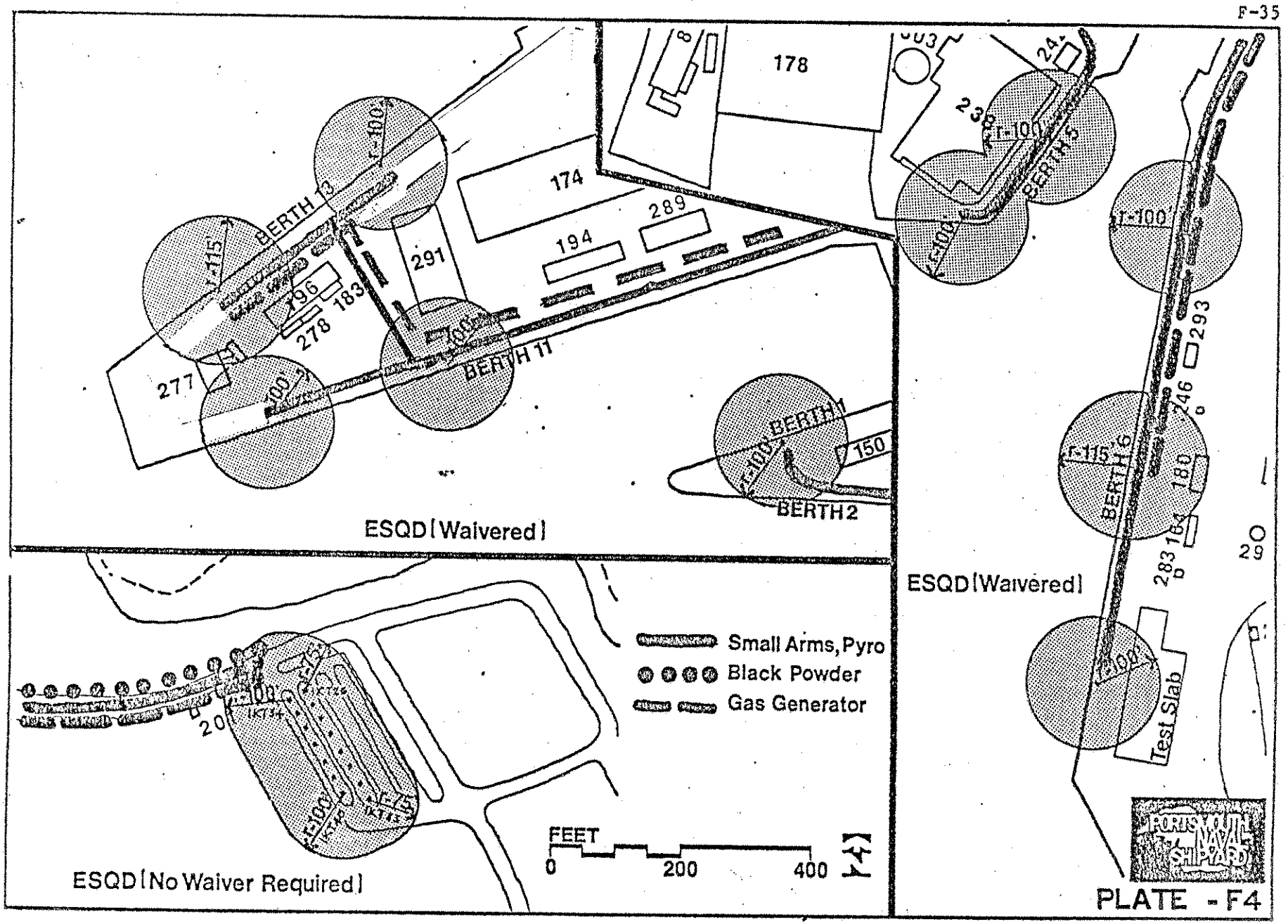
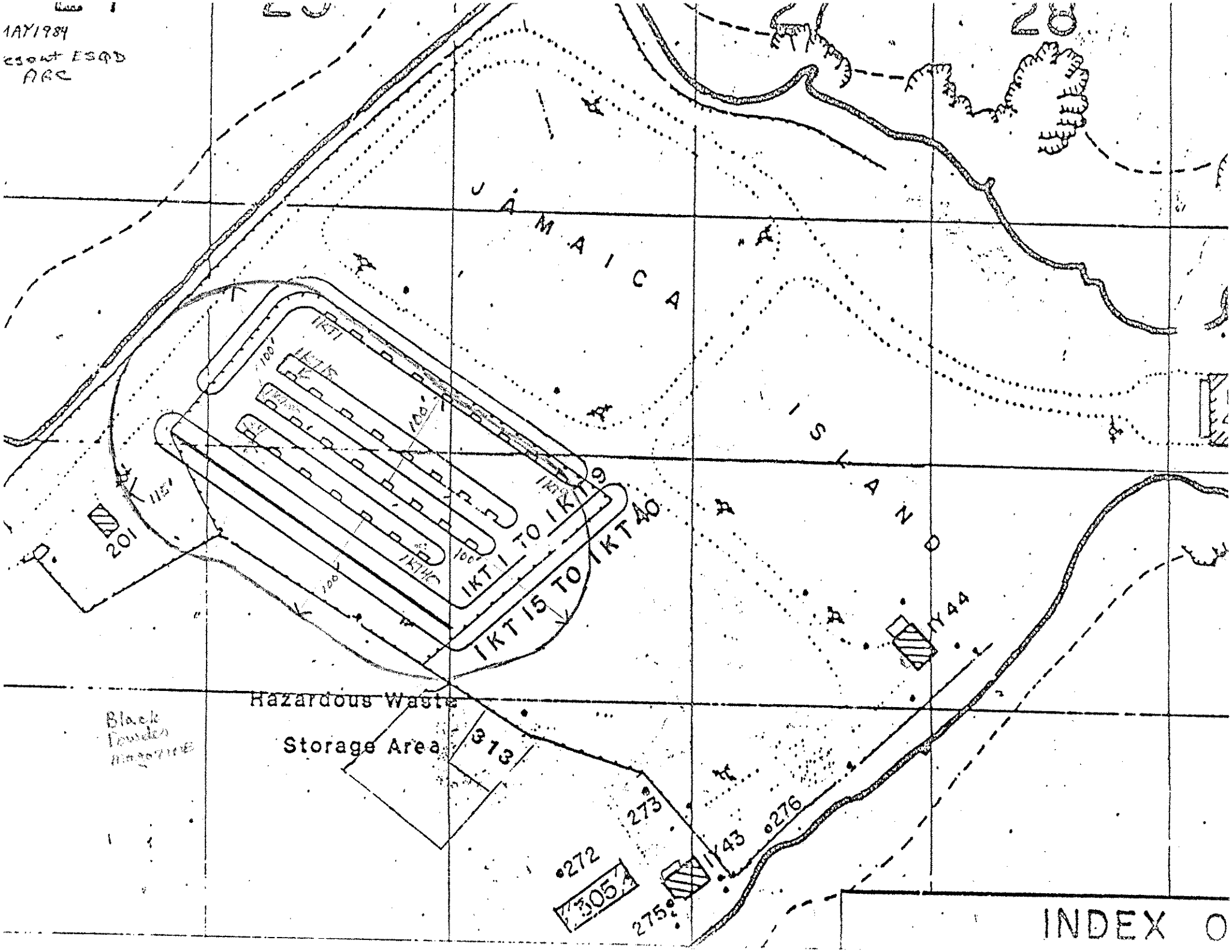
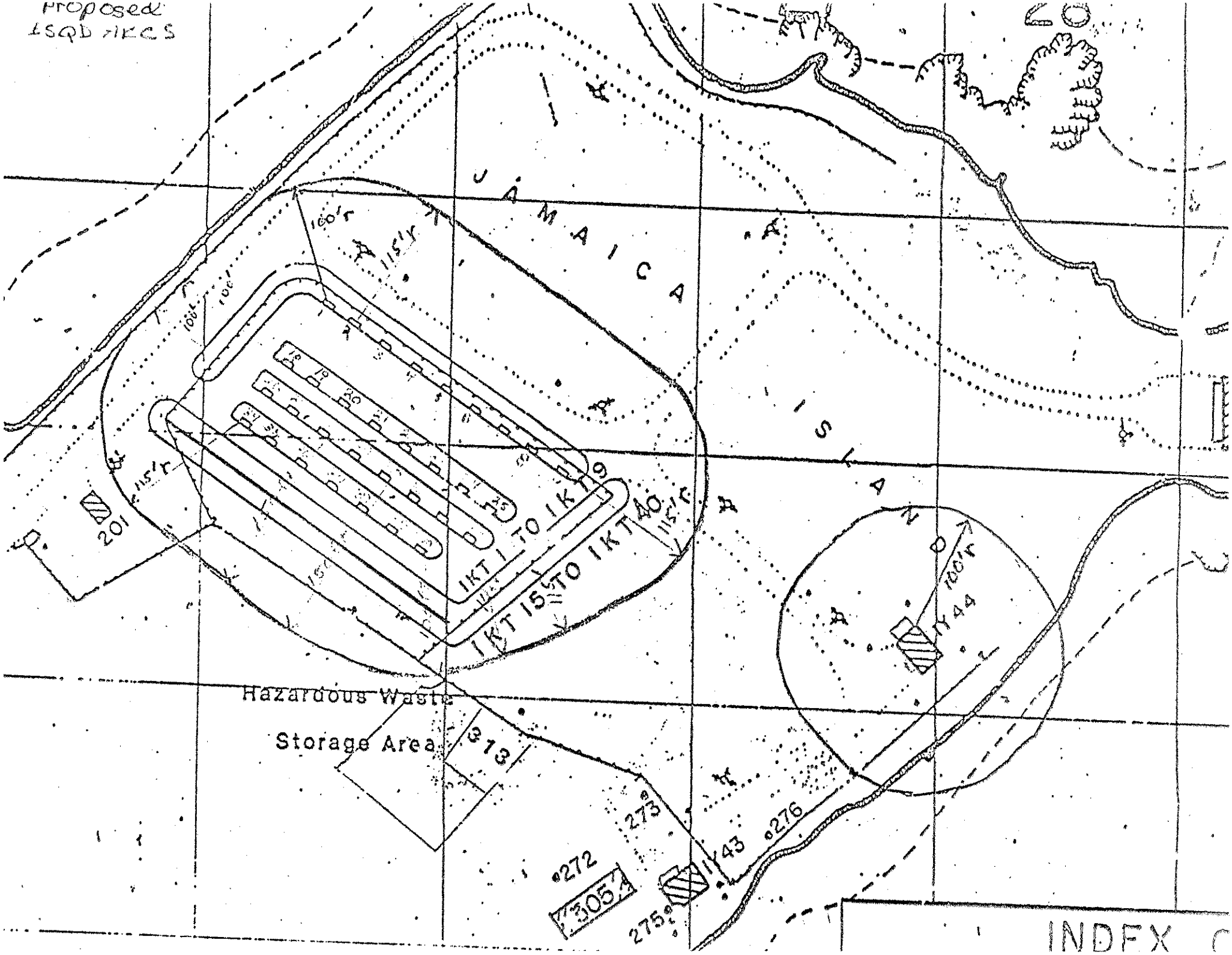

BERTH 13
BERTH 11
BERTH 1
BERTH 2
BERTH 5
BERTH 6
Test Slab
ESQD (Waivered)
ESQD (Waivered)
ESQD (No Waiver Required)
Small Arms, Pyro
Black Powder
Gas Generator
FEET
0
200
400
PORTSMOUTH NAVAL SHIPYARD

PLATE - F4

1AY1989
CSOWT ESQD
ARC




Proposed
LSQD PKCS
JAMAICA
ISLAND
160'r
115'r
100'r
IKT 1 TO IKT 9
IKT 15 TO IKT 40
201
IY44
Hazardous Waste
Storage Area
213
273
272
3054
275
IY43
276
INDEX

SITE APPROVAL JUSTIFICATION AND RATIONALE

1. Project Identification:

Naval Shipyard, Portsmouth, New Hampshire 03801
Project RC 50-84, Repairs and Modifications to the Ammunition Storage Area

2. Explosives Associated with the Project:

a.

ITEM DESCRIPTION	CLASS/DIV EA.	NEW EA.
40mm Saluting Charges	Black Powder 1.3	.08
Caps and Fuzes	Compatibility Group B	Varied
Grenades, Offensive	TNT Compatibility Group D	.5
TNT, Block	TNT	.5
Rocket, Law	HE Compatibility Group E	1.0

b.

MAG NO.	TYPE	CLASS/DIV	MAX NEW
1KT1	Riot Control (CS, CN)	1.4	4,000
1KT2-1KT9	C3, C4 Gas Generators	1.3	4,000
1KT10-1KT17	Demolished		
1KT18	Small Arms	1.4	4,000
1KT19	Caps and Fuzes	1.4	4,000
1KT20	TNT, Block, C4	1.1	20
1KT21	Rockets, Law	1.1	20
1KT22	Rockets, Law	1.1	20
1KT23	Other HE	1.1	20
1KT24	Pyrotechnics	1.3	4,000
1KT25	Pyrotechnics	1.3	4,000
1KT26	Small Arms	1.4	4,000
1KT27	Pyrotechnics	1.3	4,000
1KT28	Grenades, Offensive	1.1	20
1KT29	Grenades, Offensive	1.1	20
1KT30	Grenades, Offensive	1.1	20
1KT31	Pyrotechnics	1.3	4,000
1KT32	Pyrotechnics	1.3	4,000
1KT33	Pyrotechnics	1.3	4,000
1KT34	Black Powder	1.3	4,000
1KT35	Small Arms	1.4	4,000
1KT36	Small Arms	1.4	4,000
1KT37	Small Arms	1.4	4,000
1KT38	Small Arms	1.4	4,000
1KT39	Small Arms	1.4	4,000
1KT40	Small Arms	1.4	4,000

3. Explosives Located Within Inhabited Building Distance:

No explosives are contained within the inhabited building distance not

indicated herein, i. e., not outside the Storage Area.

4. Existing CNO Waivers:

There are no existing CNO Waivers pertaining to the Ammunition Storage Area.

5. Operational Necessities of the Location:

a. The present mission of the Portsmouth Naval Shipyard Ammunition Storage Area is to provide safe custody of Ordnance and Explosives required by the following activities:

(1) In support of ships undergoing overhaul at Portsmouth Naval Shipyard.

(a) Small arms and pyrotechnics necessary for the security and safety of these ships while at sea and in port.

(b) Gas generators required for the testing of the missile systems of SSBN Class Submarines.

(2) Storage of security and contingency ammunition for Portsmouth Naval Shipyard and tenant commands.

(3) Storage of Training Allocations

(a) Portsmouth Naval Shipyard

(b) Marine Barracks

(c) Reserve Center

(d) Ships afloat homeported in the area

(4) Storage in support of ships transient in the area.

(5) Storage of fleet turn-in material from forces afloat.

(6) Temporary stowage as requested by forces afloat.

b. The ordnance discussed in paragraph 5 (a), because of operational time considerations and security reasons, must be stored locally. Portsmouth Naval Shipyard lacks the advantage of a nearby naval base for this type of support. Missile gas generators and other items stored on a transient basis need temporary storage due to unknown and variable delivery dates and shifty operational schedule of ships afloat and those undergoing overhaul. Items of this nature are also loaded and off-loaded on a contingency basis.

c. This project is time sensitive due to projected shipyard work load. Missile gas generators must be on-board in support of submarine overhauls by the winter of 1985-1986. Therefore it is imperative that work be commenced by that fall.

6. Economic Factors:

With a readily available storage site, items that are normally consumed over a length of time may be ordered in larger quantities thereby consolidating shipments. Ships may also pick-up their replenishment needs from Portsmouth Naval Shipyard in a timely manner vice at a later date which enhances their safety at sea and may avoid a separate port call.

7. Degree and Type of Hazard:

a. The most limiting item is the proposed storage of DOD Class 1.1 Type Material in magazines 1KT20-1KT23, and 1KT28-1KT30. Using table 5-4 of NAVSEA OP 5 these items would produce and ESQD Arc of 150 feet. As this Arc is contained within other Arcs for Class Sensitive items this would not be considered an significant increase in explosive hazard than if DOD 1.3 Class Material were stored in these magazines. The above can be considered valid if additional precautions are taken to contain all debris and fire brands within the magazine or at least within the intraline distance to prevent propagations in the event the maximum credible to be the instantaneous detonation of all material contained in a single bunker.

We proprose to limit the net explosive weight in 1KT20-1KT23, and 1KT28-1KT30, to twenty pounds NEW each of DOD Class 1.1 material with suitable barricades. The main purpose of these barricades would be to prevent the weakest part of the magazine, the doors, from becoming a missile hazard. Barricades would be constructed as to direct an explosive impulse upward thereby forcing the door in a downward direction into the large external earth burm if necessary.

b. There will be no active duty or non-active duty personnel within the current or proposed ESDQ Arc on a permanent basis.

(1) Personnel would be in the ESQD Arc for normal magazine operations (i.e. inspections, handling, etc) only on an as needed basis (normally two active duty personnel).

(2) The maximum number of personnel in the ESQD Arc would be during a gas generator handling operation involving two active duty and ten non-active duty personnel.

(3) Both active duty and civil Federal employees would travel through the proposed ESQD Arc on their way to Jamaica Island as they now do with the present ard.

8. Alternative Methods:

The following Alternative methods of accomplishing the indicated function without expanding the explosive hazard have been considered and the reason for rejecting these alternatives is indicated:

a. Store ammunition at an alternative site.

(1) Nearby Air Force Base. Laizon with the Air Force Base has indicated that their present situation would not allow them to increase their storage commitment due to space considerations. Storage at the base would also necessitate the frequent movement of explosive material off a military installation over public highways through urban areas. This site would also preclude the use of contingency ammunition in an emergency.

SITI PROVAL JUSTIFICATION AND RAT LE

1. Project Identification:

Naval Shipyard, Portsmouth, New Hampshire 03801 Project , Repairs and Modifications to Magazine 1Y44.

2. Explosives Associated with Project:

Item Description	Class/Div Ea	New Ea
Cartridge, 12 Gage Shotgun, #00 Buckshot	1.4	0.0236
Cartridge, 12 Gage Shotgun, #9 Shot	1.4	0.0236
Cartridge, 7.62mm. Glank, M82, Single Round	1.4	0.0028
Cartridge, 7.62mm, Ball M59 or M80, 5 Rd Cl.	1.4	0.0068
Cartridge, 7.62mm, Ball and Tracer Linked	1.4	0.00701
Cartridge, 9mm, Ball, Paragellum	1.4	0.0009
Cartridge, Cal. 38 Special, Ball M41	1.4	0.00073
Cartridge, Cal. 45, Ball, M1911, Grade 1	1.4	0.00078
Cartridge, 40mm Blank Saluting	1.3	0.08
Cartridge, Grenade, M64, Rifle, 7.62mm	1.4	0.0059
Grenade, Hand, Smoke	1.4	0.719
Grenade, Hand,Smoke	1.4	0.719
Grenade, Hand, Smoke	1.4	0.719
Pot, Smoke, MK6, Ground w/fuze	1.4	0.09172
Signal, Kit, Pers Distress, MK79 Mod 0	1.3	2.640
Signal, Illum, A/C Dbl. Star	1.3	0.26911
Signal, Illum, A/C Dbl. Star	1.3	0.26911
Signal, Illum, A/C Dbl. Star	1.3	0.26911
Signal, Smoke and Illum Marine MK 13-0	1.4	0.2125
Signal, Smoke and Illum, A/C Mk6	1.3	4.078
Signal, Illum, MK 2 Mod 0, Very Green	1.3	0.033
Signal, Illum, MK2 Mod 0, Very Red	1.3	0.033
Signal, Illum, MK2 Mod 0, Very White	1.3	0.033
Marker, Location, Marine, A/C, MK 58	1.3	4.8438
Cartridge, 12 Gage #4B	1.4	0.0236
Cartridge, 5.56mm Ball, 10 Round Clip	1.4	0.00369
Cartridge, .22 Cal. Gall LR	1.4	0.00024
Cartridge, .45 Cal. BLK, L/T	1.4	0.0010
Grenade, Hand Incendiary	1.3	1.6281
Rocket, 2.75 in, L/T	1.3	5.980
Pot, Smoke M6, Ground	1.4	0.5129
Marker, Location, Sub, MK21-0	1.3	0.605
Signal, Smoke & Ill. Sub, MK66-0	1.3	0.960
Riot Control (CS,CN)	1.4	
C3, C4, Gas Generators	1.3	

3. Explosives Located Within Inhabited Building Distance:

No explosives are contained within the inhabited building distance not indicated herein, i.e., not outside Magazine 1Y44.

4. Existing CNO Waivers:

There are no existing CNO Waivers pertaining to the Ammunition Magazine 1Y44.

5. Operational Neces[illegible]ies of the Location:

a. The present mission of the Portsmouth Naval Shipyard Ammunition Storage Area is to provide safe custody of Ordance and Explosives required by the following activities:

(1) In support of ships undergoing overhaul at Portsmouth Naval Shipyard.

(a) Small arms and pyrotechnics necessary for the security and safety of these ships while at sea and in port.

(b) Gas generators required for the testing of the missile systems on SSBN Class Submarines.

(2) Storage of security and contingency ammunition for Portsmouth Naval Shipyard and tenant commands.

(3) Storage of Training Allocations

(a) Portsmouth Naval Shipyard

(b) Marine Barracks

(c) Reserve Center

(d) Ships afloat homeported in the area

(4) Storage in support of ships trasient in the area.

(5) Storage of fleet turn-in material from forces afloat.

(6) Temporary stowage as requested by forces afloat.

b. The ordnance discussed in paragraph 2 [illegible], because of operational time considerations and security reasons, must be stored locally. Portsmouth Naval Shipyard lacks the advantage of a nearby naval base for this type of support. It therefore becomes necessary to provide facilities to recieve, ship, issue and perform preventive and corrective maintenance incurred due to the presence of afore said items.

c. NAVSEA OP5 paragraph 2-1.18 prohibits opening or repairing containers in magazines and also states "this type of activity should be accomplished in a building or area specifically approved by NAVSEASYSCOM for the purpose." An explosives safety survey of Portsmouth Naval Shipyard was conducted on 21 December 1983 (Naval Sea Support Center, Atlantic ltr 230:JOD:vlg 8020 Ser 3506 dtd 30 December 1983). In paragraph 3.d of the above report the recommendation was made that "the station consider the feasibility of utilizing Magazine 1Y44 as an ammunition and explosives transfer facility under the guidelines of paragraph 6-5.1 of(NAVSEA OP5)." In response and in light of the requirements of NAVSEA OP5 and NAVSEA OP 2165 this project is being developed and proposed.

d. NAVSEA OP 2165 paragraph 4-3 states "Any conveyance being used for the transport of HM shall be loaded or unloaded only at authorized locations; such locations shall be cleared of all debris and/or other combustible vegetation and materials for a distance of 50 feet beyond the designated area."

[illegible] as noted in paragraph 5.c above. Portsmouth Naval Shipyard recieves explosive items of one type or another about 80 times per year in support of th [illegible]ove mission. The Shipyard S[illegible]s explosive items about 15 times per year.

e. This project is time sensitive due to the extensive back log of items that cannot be shipped and therefore must be stored in the magazine area. Portsmouth Naval Shipyard Special Project RC 50-84 Repairs and Modification to the Ammunition Storage Area (addressed seperatly) must be completed by the winter of 1985-1986 to support the projected shipyard work load. This project must be completed before construction can start on Special Project RC 50-84 since all explosives must be removed from the magazine area during work. This project sould support the shipping of explosive items now being stored in the magazines and the temporary storage of a limited amount small arms and pyrotechnics necessary for the continued functioning of ships afloat and Shipyard security. 1Y44 would then be used as a transfer facility as recommended by the Explosive Survey Board.

6. Economic Factors:

1Y44 is an existing building originally built as an above ground magazine. The building is already equipped with lightening protection equipment and fencing on two sides. This lowers the costs of upgrading to a useful facility greatly. 1Y44 would provide a centralized safe area for those operations that are time critical, i.e. common carrier holds, inspections, issue, transfer, recieving, shipping etc. Therefore manpower is not lost in waiting and research for who or were the operations are to take place.

7. Degree and Type of Hazard:

a. The hazard is minimal due to the remoteness of 1Y44. The required 100 ft ESQD arc can be easily established within available real estate. The water boundry on the south side of 1Y44 is already designated as restricted waters. A playground will have to be removed from the east side of the building.

b. There will be no active duty or non-active duty personnel within the proposed ESQD Arc on a permanent basis.

(1) Personnel would be in the ESQD Arc for normal operations only on an as needed basis (normally two active duty and two non-active duty personnel).

8. Alternative Methods:

The following alternative methods of accomplishing the indicated function without expanding the explosive hazard have been considered and the reason for rejecting these alternatives is indicated:

a. Perform the operations indicated in the open as paragraph 2-1.18 of NAVSEA OP 5 suggests as an alternative. The only open area at least 100 feet away from any building or conveyance containing ammunition or explisives and also not in an industralized area and example is the area of Jamaica Island were Magazine 1Y44 is located. 1Y44 meets these requirements and also has the minimum impact on present space usage. 1Y44 also has the advantage of not being limited to only clear weather. Trucks and conveyance do not have to wait until the weather clears before they can load or unload.

LOC

26-1-754

22 July 1921.

From: Commandant.
To: Chief of Bureau of Ordnance.

Subject: Guns removed from ex-German Submarine U-111.

Reference: (a) Bureau of Ordnance letter No. 30326/92(I-3)7/30 dated July 14, 1921.

1. The two 4" guns removed from the ex-German Submarine U-111, which were stored at this Yard, were taken to sea and thrown overboard on the morning of 22 July 1921.

N.E. Irwin.

603 433 3354 p.2
C H C I corp

CHRONOLOGICAL HISTORY OF BUILDING 31 (AMMUNITION MAGAZINE)

Date	Description	Reference
c1860	Ammunition Magazine constructed	N.Y.D. Form 115
1945	Commissary Store	Map of "*U.S. navy yard Portsmouth, NH.*", *June 30, 1945*
1962	Navy Exchange	Portsmouth Naval Shipyard, Portsmouth NH. "*Index of structures*", *1 July 1962*
1979	Navy Exchange	U.S. Naval Activities Seavey island, ME., "*Existing Conditions*", *NOV 1979*
1999	Shipyard Museum and Visitor Center	Interview with James Dolph, Code 100H, 15 Jan 1999

CHRONOLOGICAL HISTORY OF BUILDING 32 (AMMUNITION MAGAZINE)

Date	Description	Reference
c1860	Ammunition Magazine constructed	N.Y.D. Form 115
1945	Store House	Map of "*U.S. Navy Yard Portsmouth, NH.*", June 30, 1945
1962	Gammagraph Building	Portsmouth Naval Shipyard, Portsmouth, NH. "*Index of Structures*", 1 July 1962
1976	Radiographic Building	U.S. Naval Activities Seavey Island, Kittery, ME. "*Index of Structures*"
1979	Radiographic Building	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1996	Storage	Interview with James Dolph, Code 100H, 15 Jan 1999
1999	Storage	Interview with James Dolph, Code 100H, 15 Jan 1999

(10)

CHRONOLOGICAL HISTORY OF BUILDING 33 (AMMUNITION MAGAZINE)

Date	Description	Reference
c1856	Shell house constructed	N.Y.D. form 115
1947	Store House	Map of ,"*U.S. Navy Yard Portsmouth, NH.*", June 30, 1947
1962	Production Storage	Portsmouth Naval Shipyard, Portsmouth, NH. *"Index of Structures"*, 1 July 1962
1971	Inactive	Map of, "*US Naval Activities Seavey Island, Kittery, ME.*", July 1971
1976	Storage	Map of, "*US Naval Activities Seavey Island, Kittery, ME.*", July 1971
1979	Storage	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1998	Storage	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*, October 1998

(18)

CHRONOLOGICAL HISTORY OF BUILDING 34 (AMMUNITION MAGAZINE)

Date	Description	Reference
c1858	Shell house constructed	N.Y.D. form 115
c1945	Cold Storage	Map of "*U.S. Navy Yard Portsmouth, NH.*", June 30, 1945
1976	Cold Storage	U.S. Naval Activities Seavey Island, Kittery, ME., "*Index of Structures*", NOV 1976 NAVFAC DWG 692162
1979	Cold Storage	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1998	Cold Storage	U.S. Naval Activities Seavey Island; Kittery ME, "*Existing Conditions*", October 1998

CHRONOLOGICAL HISTORY
HIGH EXPLOSIVE MAGAZINES, (IGLOOS), IKT-1 TO IKT-40
(US NAVAL MAGAZINE, JAMAICA ISLAND)

Date	Description	Reference
1942	Storage, Ammo, Igloo Constructed	NAVCOMPT FORM 267
1947	Transferred from US Naval Magazine to Portsmouth Naval Shipyard	ComOne ltr ND/N1-13 (445) NMJ:MW of 22 October 1947
1976	40 High Explosive Magazines	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162
1979	35 High Explosive Magazines	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
c1996	Demolished to Construct Building 357	Interview with James Dolph, Code 100H, 15 Jan 1999

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CHRONOLOGICAL HISTORY
FUSE & DETONATOR MAGAZINE, IHTX -41
(US NAVAL MAGAZINE, JAMAICA ISLAND)

Date	Description	Reference
1942	Fuse & Detonator Magazine underground	NAVCOMPT FORM 267
1947	Transferred from US Naval Magazine to Portsmouth Naval Shipyard	ComOne ltr ND/N1-13 (445) NMJ:MW of 22 October 1947
1962	Fuse & Detonator Magazine	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1967	Vacant	Map of U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, Jan 1, 1967
1976	Not listed	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162

CHRONOLOGICAL HISTORY
FUSE & DETONATOR MAGAZINE, IHTX -42
(US NAVAL MAGAZINE, JAMAICA ISLAND)

Date	Description	Reference
		NAVCOMPT FORM 267
1947	Transferred from US Naval Magazine to Portsmouth Naval Shipyard	ComOne ltr ND/N1-13 (445) NMJ:MW of 22 October 1947
1962	Fuse & Detonator Magazine	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1967	Vacant	Map of U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, Jan 1, 1967
1976	Not Listed	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162

CHRONOLOGICAL HISTORY
PYROTECHNICS MAGAZINE, IY-43
(US NAVAL MAGAZINE, JAMAICA ISLAND)

Date	Description	Reference
		NAVCOMPT FORM 267
1947	Transferred from US Naval Magazine to Portsmouth Naval Shipyard	ComOne ltr ND/N1-13 (445) NMJ:MW of 22 October 1947
1953	RADIC Repair	Master Shore Station Development Plan, *"Index of Structures"*, 31 Dec 1953
1958	Pyrotechnics Magazine	Master Shore Station Development Plan, *"Index of Structures"*, 31 Dec 1958
1962	Radio Receiving Building	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1976	Radio Receiving Building	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162
1979	Radio Receiving Building	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1998	Not listed	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*, October 1998

CHRONOLOGICAL HISTORY
SMALL ARMS AMMUNITION MAGAZINE, IY-44
(US NAVAL MAGAZINE, JAMAICA ISLAND)

Date	Description	Reference
		NAVCOMPT FORM 267
1947	Transferred from US Naval Magazine to Portsmouth Naval Shipyard	ComOne ltr ND/N1-13 (445) NMJ:MW of 22 October 1947
1962	Small Ammunition Magazine	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1976	Passive Defense Storage	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162
1979	Recreation Grounds Building	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1998	Small Arms Magazine	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*, October 1998

CHRONOLOGICAL HISTORY
FIXED AMMUNITION MAGAZINE, IZ-45
(US NAVAL MAGAZINE, JAMAICA ISLAND)

Date	Description	Reference
		NAVCOMPT FORM 267
1947	Transferred from US Naval Magazine to Portsmouth Naval Shipyard	ComOne ltr ND/N1-13 (445) NMJ:MW of 22 October 1947
1962	Storage (prod)	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1967	Storage Disaster control	Portsmouth naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*,
1976	Passive Defense Storage	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162
1979	Recreation Grounds Building	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1998	Not Listed	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*, October 1998
1999	Demolished 1998	Interview With James Dolph, Code 100H, 15 Jan 1999

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CHRONOLOGICAL HISTORY
ARMORY, BUILDING M-4
US MARINE BARRACKS

Date	Description	Reference
1904	Constructed as Bake Shop	N.Y.D Form 115
1923	Store House	Map of the U.S. Navy Yard Portsmouth NH., "*Showing Improvements*" July 1, 1923 YM-19-58A
1923	Police Shed and Storage	Map of the U.S. Navy Yard Portsmouth NH., "*Showing Improvements*" June 1945 YM-45-124
1958	Armory and Storage	Master Shore Station Development Plan, "*Index of Structures*", 31 Dec 1958 Y&D DWG 3 572817
1962	Armory and Gymnasium	Portsmouth Naval Shipyard Portsmouth. NH., "*General Development Map Existing Conditions 1 July 1962 Index of Structures*"
1976	Armory and Gymnasium	U.S. Naval Activities Seavey Island, Kittery, ME., "*Index of Structures*", NOV 1976 NAVFAC DWG 692162
1979	Armory and Gymnasium	U.S. Naval Activities Seavey island, ME., "*Existing Conditions*", *NOV 1979*
1998	Armory and Gymnasium	U.S. Naval Activities Seavey Island; Kittery ME, "*Existing Conditions*", October 1998

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CHRONOLOGICAL HISTORY
ARMORY, BUILDING M-10
US MARINE BARRACKS

Date	Description	Reference
1913	Constructed as Coal Shed	N.Y.D. Form 115
1936	Coal Shed	Map of U.S. Navy Yard Portsmouth, NH. *"Showing Conditions on"* June 30, 1936
1942	Change to Cold Storage	NAVDOCKS Form 115
1945	Cold Storage	Map of U.S. Navy Yard Portsmouth, NH. *"Showing Conditions on"* June 30, 1945
1958	Cold Storage	Master Shore Station Development Plan, *"Index of Structures"*, 31 Dec 1958 Y&D DWG 3 572817
1962	Cold Storage	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1976	Cold Storage	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162
1979	Cold Storage	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1998	Cold Storage	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*, October 1998

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CHRONOLOGICAL HISTORY
ARMORY, BUILDING M-11
US MARINE BARRACKS

Date	Description	Reference
1911	Constructed as Coal Shed	N.Y.D. FORM 115
1936	Coal Shed	Map of U.S. Navy Yard Portsmouth, NH. *"Showing Conditions on"* June 30, 1936
1945	Storage	Map of U.S. Navy Yard Portsmouth, NH. *"Showing Conditions on"* June 30, 1945
1958	Storage	Master Shore Station Development Plan, *"Index of Structures"*, 31 Dec 1958 Y&D DWG 3 572817
1962	Storage	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1976	Storage	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162
1979	Storage	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1998	Storage	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*, October 1998

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CHRONOLOGICAL HISTORY
ARMORY, BUILDING M-12
US MARINE BARRACKS

Date	Description	Reference
1890	Constructed as Shooting Gallery	N.Y.D. Form 115
1919	Removed to make room for Laundry	N.Y.D. Form 115

(19)

CHRONOLOGICAL HISTORY
ARMORY, BUILDING 191
US NAVAL PRISON

Date	Description	Reference
1945	Constructed as Supply & Disbursing Offices, Storage, Classrooms	N.Y.D Form 115
1958	Branch Exchange, Barracks, EM Club, Classrooms, Armory, Admin	Master Shore Station Development Plan, *"Index of Structures"*, 31 Dec 1958 Y&D DWG 3 572817
1962	Barracks	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1976	Bachelors Enlisted Quarters	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162
1979	Unaccompanied Enlisted Qtrs	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*
1998	Unaccompanied Enlisted Qtrs	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*, October 1998

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#15

(80)

H. O. Pub. No. 908

FLEET GUIDE

BOSTON

First Edition
1952

Published by the U. S. Navy Hydrographic Office under
the authority of the Secretary of the Navy

United States
Government Printing Office
Washington : 1952

(Chg 4)

Sep 28 04 10:29a C R C I corp 603 433 3354 p.81

be accomplished. Remove all ammunition from the magazine which is adjacent to any compartment in which welding or burning is to be done. Adjacent compartments include those above, below, at corners, and on each side of the magazine in question. Remove all ammunition from magazines which are not equipped with a sprinkler system or which cannot be flooded in the event of a fire or other emergency. Ships being drydocked will generally be required to remove below deck ammunition. Specific exception to this may be made by the Shipyard Commander in those cases where shipyard work is localized and the drydocking period is short.

Since it may be desirable during a restricted availability to accomplish additional work items which involve welding or burning and which can be easily accomplished during the time allocated for the primary or controlling job, it is advisable whenever possible to remove all types of ammunition from the ship, except small arms ammunition required for security purposes.

The Commander, Boston Naval Shipyard (Planning Officer) prior to the arrival of a ship will notify the ship, by message, the amount and type of ammunition to be off-loaded.

Prior to arrival, naval ships should advise the Commanding Officer, U. S. Naval Ammunition Depot, Hingham, with copies to Commander, U. S. Naval Base, Boston, and Commander, Boston Naval Shipyard, as to quantity and type of ammunition to be off-loaded and estimated time of arrival. The Commanding Officer, U. S. Naval Ammunition Depot, Hingham, will make arrangements to furnish an ammunition lighter and transfer the ammunition to magazines for temporary storage.

Refer to *current OPNAV INSTRUCTION* for duties and responsibilities of commanding officers of ships in connection with the transportation of fleet-returned ammunition in lighters.

5-8 DEGAUSSING FACILITIES—Boston Area.—Currently no active degaussing or deperming facilities are found in the Boston Area. Arrangements to run the degaussing range may be made directly with the Officer in Charge, U. S. Naval Degaussing Station, Newport, R. I., by the commanding officers of ships desiring or requiring a complete check of the ship's degaussing condition.

The Chief, Bureau of Ordnance prescribes a degaussing check following any repair or modification of the ship's degaussing installation, a major alteration to a ship's structure, following a normal overhaul period, and at periodic intervals as specified in Degaussing Instructions.

On arrival of ships of the active fleet for regular overhauls, the Boston Naval Shipyard will automatically conduct a complete inspection of the degaussing systems on ships so fitted to determine the condition of the system and any necessary repairs. No work request is required for this inspection, but work found necessary as a result of inspection should be included in the supplementary work list. Repairs, including calibration of meters, should be completed before ranging or deperming.

5-9 GENERAL ORDNANCE INFORMATION—Dumping of Explosives, Ammunition, and Chemicals (*C.&G.S. Chart 70*).—The disposition of obsolete and unserviceable ammunition is to be performed in accordance with the instructions of the Chief, Bureau of Ordnance. In all instances, where disposition BY DUMPING is specified, the approved dumping area assigned to the First Naval District is an area 10 miles square with center located *41°33′ N., 65°33′ W.* Commanding officers of ships shall insure that items to be dumped will readily sink when dumped overboard.

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(8)

U. S. NAVY YARD
PORTSMOUTH, N.H.

July 7, 1942.

ORDER NO. 23-42

SUBJECT: Ordnance Storage and Other Facilities, Navy Yard, Portsmouth, N.H. - Organization of.

Reference: (a) Bu.Ord. letter NY1/A1-1(Ad3b) of July 2, 1942.

1. In accordance with reference (a), there is hereby established under the Officer-in-Charge an organization comprised of

(a) U. S. Naval Magazine, Jamaica Island,
(b) U. S. Naval Net Depot, Seavey Island.

2. Old buildings, Nos. 31,32,33, and 34, no longer to be used as magazines, will be continued in use as storehouses assigned to the Supply Department. The ammunition now stored in these buildings will be transferred to Jamaica Island magazines as soon as practicable.

3. The Torpedo Storage and Workshop, Building No. 176, will, when completed, be assigned to the Industrial Department as a shop in the Production Division under a Torpedo Repair Officer who will be specially trained in this work.

T. WITHERS
Rear Admiral, U. S. N.,
Commandant.

DISTRIBUTION
A - F - D

Sep 28 04 10:30a C R C I corp 603 433 3354 p.83

(83)

SOURCE: NATIONAL ARCHIVES
NEW ENGLAND REGION
380 TRAPELO ROAD
WALTHAM, MA 02154

RECORD GROUP #181
PORTSMOUTH NAVAL SHIPYARD

Portsmouth Naval Shipyard
General Correspondence (Central Files) 1925-50
Includes Industrial Dept. 1925-50
AND SHIPYARD COMMANDER 1945-50

IN REPLY ADDRESS
THE BUREAU OF YARDS AND DOCKS
AND REFER TO No.

A1-1

NAVY DEPARTMENT

BUREAU OF YARDS AND DOCKS

WASHINGTON, D. C.

SEP 13 1941

From: Chief of Bureau of Yards and Docks.
To: Commandant, Navy Yard, Portsmouth, N. H.

SUBJECT: Ordnance Storage Facilities, including acquisition of Jamaica Island.

Reference: (a) Comdt's. ltr. A1-1(25946-4) of 7 Aug. 1941.
(b) Bu.Y&D. dispatch 131733, Aug. 1941. 26827

Inclosure: (herewith) (A) Two copies of standard specification for "Precast Concrete High Explosive Magazines".
" (B) Copy of Bu.Y&D. Circular Letter, N6-62 of 2 Aug. 1941.
(sep.cover) (C) Blueprint, Bu.Y&D. Sketch O.E.D.-139.
" (D) One vandyke each, Bu.Y&D. drawings Nos. 119721, 119723, 119724, 163582 and 163583.

1. By reference (a) the Commandant recommended that construction of the subject project be accomplished by yard labor and as an addition to Contract NOy-4236. This recommendation was approved by reference (b).

2. The requirements for ammunition storage facilities, as approved by the Bureau of Ordnance together with the locations for the several types of magazines, are indicated on Inclosure (C). Minor modifications of the indicated locations of the magazines are permissible, provided the indicated safety distances are not reduced. In this connection, attention is invited to Inclosure (B).

3. The detail requirements for the several types of buildings are as follows:

40 Precast High Explosive Magazines:

These magazines shall be in accordance with Bu.Y&D. drawings Nos. 163582 and 163583 and the standard specifications, Inclosure (A).

The plan of a 9-magazine unit shown on drawing No. 163582 should be disregarded as this unit plan is intended for use in level areas where

Sep 28 04 10:31a C R C I corp 603 433 3354 p.85

ample land is available. The general arrangement shown on Inclosure (C) should be followed, with the rows of magazines following the contours of the topography and resulting in four different levels.

2 Fuse and Detonator Magazines, 10' x 14' (inside dimensions).

These shall be constructed in accordance with the detonator magazines shown on Bu.Y&D. drawing No. 119721.

1 Fixed Ammunition Magazine, 50' x 60'.

This magazine shall be constructed in accordance with the plans, elevations and details of the smokeless powder bag charges building shown on Bu.Y&D. drawings Nos. 119723 and 119724 except that two 20' bays shall be omitted, thus providing a building approximately 60' in length.

1 Small Arms Ammunition Magazine, 27' x 34', and 1 Pyrotechnics.

These magazines shall be in accordance with similar magazines shown on Bu.Y&D. drawing No. 119721, except that the length of each shall be reduced by 16'-8", thus providing buildings approximately 34' long. The details shown on Y&D. drawing No. 119724 also apply to these magazines.

4. The fixed ammunition, small arms ammunition and pyrotechnics magazines require primary and secondary lightning protection and fire protection. The high explosives magazines and the fuse and detonator magazines require secondary lightning protection only. Data for design of the lightning protection systems will be found in Chapter "O" of the Bureau of Yards and Docks Design Manual.

5. The total amount available for this project, including the acquisition of land, is $220,000. Two percent of this amount, or $4,400, is being retained for the pay of Bureau and Group IV(b) field employees. There is, therefore,

Sep 28 04 10:31a C R C I corp 603 433 3354 p.86

available for the purchase of land, contract construction work, and yard labor work, a total of $215,600. Pending the issuance of a formal change order under Contract NOy-4236, the contractor should be directed to proceed with the contract construction work at the earliest practicable date. A formal change order and allotments will be issued as soon as recommendation is received as to the estimated amount of the proposed change order and the amounts required for the purchase of land and for yard labor work.

C E Gullman

CC-Bureau of Ordnance
(with copy of Incl.(C))

Appro. — 220,000
45,000

Bureau 2% — $4,400
Land 30,000
Prior Yard Work 10,600
45,000

& Nb

$175,000 — NOy 4236

A1-1

28882

Sep 28 04 10:32a C R C I corp 603 433 3354 p.87

(87)

DOCUMENTS COPIED AT NATIONAL ARCHIVES, REGIONAL BRANCH, TRAPELO ROAD, WALTHAM, MASSACHUSETTS, BY JAMES DOLPH, NOVEMBER, 1994

COLLECTION: CORRESPONDENCE, PORTSMOUTH NAVAL SHIPYARD AND NAVAL BASE, BOX 2, A1-1 - A1-3, 1925-50

FILE

Checked by

A1-1 (28882-4) EMC

27 SEP 1941

From: Commandant.
To: Bureau of Yards and Docks.

Subject: Ordnance Storage Facilities - Jamaica Island.

Reference: (a) Comdt., Ports., Let. S78/NY1 (0-4) of Jan. 30, 1941, to Ch. Nav. Op., Via Bu. Ord. and Bu. Y&D.
(b) Bu. Y&D Let. A1-1 of Sept. 13, 1941.

1. Reference (a) recommended the acquisition of Jamaica Island east of the Navy Yard and the construction thereon of ammunition storage facilities for the submarines under overhaul and repair at this Yard. It was estimated that the cost to purchase the Island, provide the necessary access roads and railroad tracks, and to construct three magazines would be $220,000. Reference (b) gives the latest requirements for ammunition storage facilities proposed for Jamaica Island, as approved by the Bureau of Ordnance, together with the locations of the several types of magazines. These requirements call for the construction of 40 precast high explosive magazines, two fuse and detonator magazines, one fixed ammunition magazine, one small arms ammunition magazine and one pyrotechnics magazine.

2. It will not be possible to construct the 45 magazines which are now requested for the $220,000 which have been made available. The plans as outlined by Reference (b) with the purchase of the land, and the provision of all necessary facilities, will involve a total expenditure of $327,000. As only $220,000 have been appropriated, it will be necessary to obtain additional funds to complete the project as now outlined, or to reduce the scope of the work. The Bureau's instructions are requested.

JOHN D. WAINWRIGHT.

MAILED
Let.
Incls. 4

FILED

(89)

DOCUMENTS COPIED AT NATIONAL ARCHIVES, REGIONAL BRANCH, TRAPELO ROAD, WALTHAM, MASSACHUSETTS, BY JAMES DOLPH, NOVEMBER, 1994

COLLECTION: CORRESPONDENCE, PORTSMOUTH NAVAL SHIPYARD AND NAVAL BASE, BOX 2, A1-1 - A1-3, 1925-50

In reply address
Supply Officer,
U. S. Naval Shipyard,
Portsmouth, N. H.

U. S. NAVAL SHIPYARD
SUPPLY DEPARTMENT
Portsmouth, N. H.

BuOrd/S.O.260028/
(NY1-573)(EEC)(ST)

16 April 1946

From: Supply Officer - Code 573.
To: Bureau of Ordnance, Navy Department, Washington 25, D.C.

Subj: Bureau of Ordnance Shipment Order 260028, dated 4/9/46 - Information regarding.

1. Subject shipment order directs the shipment of 160 Warheads to NAD, Hingham, Mass. 162 Warheads were removed from the USS PROTEUS and disposed of as follows:

Shipped to NAD, Hingham, Mass. - 56 No. on 4/12/46, Invoice 23584-1X, Blading 14500159. 46 No. shipped 4/15/46, Invoice 23584-2X, Blading 14500192.

2. Sixty (60) Warheads are being retained in the magazine at this Yard pending such time as desired turned over to the PROTEUS.

Fred M. Rosseland, Jr.,
By direction.

CC: SO, Naval Ammunition Depot,
Hingham, Mass.

Folder 3 of 3
74
BY 428
Rec. + Const.

Sep 28 04 10:34a C R C I corp 603 433 3354 p.91

20

In reply address not the signer of this letter, but Commandant, U. S. Naval Base, Portsmouth, N. H.
REFER TO NO.
S78-1/NY1

FILE

NY1
S75-1

U. S. NAVAL BASE
Portsmouth, N. H.

19 February 1946. AS/S75
mm3
LS

From: Commandant.
To: Chief of the Bureau of Ordnance.

Subj: Storage Plan for Modern Torpedoes - Information concerning date of arrival.

Ref: (a) BuOrd Conf. ltr S75-1 (Mn 3a) of 21 November 1945.
(b) Comsublant Spdltr S70/S75/S78/(971) of 13 February 1946.

1. In order to properly reply to reference (b), information is requested concerning the expected arrival date of the material listed in reference (a).

2. The U.S.S. PROTEUS (AS19) is expected to overhaul at this Shipyard from 15 March to 7 June. If the material listed in reference (a) arrives during that period it will be impossible to store the warheads and torpedoes as requested.

3. By copy of this letter, Comsublant is advised that he will be informed concerning the storage of warheads and torpedoes when the above-requested information is received from the Bureau of Ordnance. If the material listed in reference (a) does not arrive during PROTEUS' overhaul it will be possible to store 35 warheads (plus exploders, boosters and detonators) and 150 (MK 14) torpedoes. The following material can be stored and is not affected by reference (a):

(a) Ammunition
1. 5"/38 cal. (Propellant charges only) - 780
2. 5"/25 cal. - 1277 rounds
3. 40 MM - 7000 rounds
4. 20 MM - 14,700 rounds
5. 50 cal. - 22,000 rounds
6. 30 cal. - 45,000 rounds

(b) Pyrotechnics - about 150 Cu. ft.

J. H. Brown, Jr.
J. H. BROWN, Jr.

Encl. (Hw)
1. Copy of ref. (b).

Copy: Comsublant (without encl.)

022546 0170

21

(92)

In reply address
Supply Officer,
U. S. Naval Shipyard,
Portsmouth, N. H.

BuOrd/S.O.260028/
(NY1-573)(EEC)(ST)

U. S. NAVAL SHIPYARD
SUPPLY DEPARTMENT
Portsmouth, N. H.

FILE

NY1
NT1-1
Ad 7
19C

16 April 1946

From: Supply Officer - Code 573.
To: Bureau of Ordnance, Navy Department, Washington 25, D.C.

Subj: Bureau of Ordnance Shipment Order 260028, dated 4/9/46 - Information regarding.

Adv-k

1. Subject shipment order directs the shipment of 160 Warheads to NAD, Hingham, Mass. 162 Warheads were removed from the USS PROTEUS and disposed of as follows:

Shipped to NAD, Hingham, Mass. - 56 No. on 4/12/46, Invoice 23584-1X, Blading 14500159. 46 No. shipped 4/15/46, Invoice 23584-2X, Blading 14500192.

2. Sixty (60) Warheads are being retained in the magazine at this Yard pending such time as desired turned over to the PROTEUS.

042246 0446

Fred M. Rosseland Jr
Fred M. Rosseland, Jr.,
By direction.

CC: SO, Naval Ammunition Depot,
Hingham, Mass.

A86-102-31
A86-102-32
A86-102-33
A86-102-34

Doc #2

Memorandum for the Commandant. 14 April 1923.

Subject: Bldgs. Nos. 31, 32, 33 and 34.

1. The approximate floor areas of the buildings are 3936 sq. ft., 1276 sq. ft., 570 sq. ft., and 784 sq. ft. respectively.

2. Building No. 31 is stored to about seventy-five per cent of its capacity with general ordnance stores. This building was assigned to this department about one year ago in lieu of the space occupied by these stores in building No. 22. This department has not any other available space for storage of these stores.

3. Building No. 32 has three small and one large room. One of these small rooms contains powder for the yard saluting battery; one small arms ammunition, and one is empty. The large room is empty. It has been used for temporary storage of fixed ammunition from vessels decommissioned or under going repairs.

4. Building No. 33 contains several tools for loading ammunition, two flat cars, one gun limber, two supply charts, etc.

5. Building No. 34 contains a few empty ammunition boxes. It is understood that this building is reserved for the storage, should an occasion arise, of torpedo war heads.

6. As there has not been any occasion during the last year to use buildings No. 33 and 34, it seems that they may be considered as being available for temporary assignment for other uses. The floor areas of these buildings approximates 1400 sq. ft., and it is believed that these floor loads are not limited.

T.S. Jewett.

Co.

Bldgs 33 and 34 are hereby temporarily assigned for use by Marine Guard as Store Rooms. This to continue until old barracks are repaired.

D. Colimmukes

603 433 3354 P.6

NAVY YARD, PORTSMOUTH, N. H.

PUBLIC WORKS DEPARTMENT.

29-R

Doc #3

November 20, 1913.

To: Commandant.

Subject: Floors in Buildings Nos.31, 32, 33, and 34, Powder Magazines and Shell Houses.

Reference: (a) Acting Public Works Officer's 1st indorsement No.29-R, Nov. 20, 1913.

1. Complying with the Commandant's verbal instructions of even date, I have made a careful examination of the floors in Buildings 31 and 32, Powder Magazines, and in Buildings 33 and 34, Shell Houses. I find as follows:

(a) Building 31: The floor is constructed of 1-3/4" x 6" matched yellow pine, laid on wood screeds 18" centers. These screeds are bedded full depth in lime concrete. The upper surface of this concrete is moist. In the south two bays of this building, this has resulted in dry rot, to such an extent that the flooring is, in places, practically gone. As the concrete comes up to the underside of the flooring, the safe storage capacity of this floor is practically unlimited. This floor is, therefore, well adapted for the storage of shell, provided, of course, they are properly greased to resist the slight amount of moisture rising from the floor.

(b) Building 32 was constructed as a powder magazine about 1849. The floors are constructed of 2" pine, laid on 3" x 12" pine joists 20" centers, the floor being about 3 ft. above the ground. Apparently this flooring has not been renewed since the construction of the building. In view of the present aged and brittle condition of the timbering, it is recommended that the storage of material on this floor be not allowed to exceed 100 lbs. per sq.ft. In the room of this building at the main entrance, the floor joists are only 3" x 6", but are of comparatively recent construction. It is recommended that the load in this enclosure be limited to 40 lbs. per sq.ft. In view of the limiting loads for these floors, it would seem that this building is not well adapted to the storage of shell. Shell and other materials are now stored in the rooms immediately to the right and left of the main entrance to weights reaching 120 lbs. per sq.ft., and it is recommended that these loads be immediately decreased to the figure given above. Owing to the intensity of the load in these wings, I consider it unsafe to

603 433 3354 C R C I corp p.4

send a man under the same to make an inspection of the floor joists.

(c) Building 33 was constructed for the storage of unloaded shells. The floor of this building is of 1" white pine, laid on screeds about 18" centers. The screeds are bedded in concrete, the upper surface of which is about 1" below the underside of the flooring. This concrete is supported by solid earth fill. It is estimated that the safe load for these floor boards is 600 lbs. per sq.ft. Owing to the small clearance between the flooring and the concrete, the breaking of these boards would not be a serious matter. This building is well adapted to the storage of shell up to the limit stated. The floor is dry and in good condition.

(d) Building 34 was built as a storehouse for loaded shell about 1857. The floor of this building is of 1" yellow pine hard down on concrete supported by solid fill. The storage capacity of this floor is practically unlimited. It is well adapted for the storage of shell. The floor shows no signs of moisture.

- -

G B Bunnell
Acting.

1st endorsement. No. 1-1-172

Navy Yard, Portsmouth, N.H.,
November 21, 1913.

To: Captain of the Yard.

1. Forwarded.

2. The magazines are about to be placed under the cognizance of the Captain of the Yard. Please note the contents of this letter. The Public Works Officer has been directed to repair the flooring of Building 32.

3. Inform the Gunner also of the contents of this letter.

Rogers.

Doc. 4

Navy Yard, Portsmouth, N.H.
October 30, 1917.

From: Ensign (T) Noel Chatillon.

To: Commandant: Via Industrial Manager.

SUBJECT: Alteration of building and railroad at Magazine #31.

1. To facilitate the handling of mines, taken from ships for temporary stowage while the ships undergo repairs the following changes would be advisable: Cut doorway in north end of building #31. Alter the present small railroad track, so that mines can be run on their own flanged wheels from the pier, through the door and distributed on portable rails to different parts of building.

2. The facilities at present require the loading of the mines on a small car, too weak for the purpose, then unloaded at the present door on west side of building, and run across the floor the flanged wheels damaging the floor very much. The work is also very slow, requiring a large number of men.

N. Chatillon

26405-5231-0711174

1st Indorsement,
Navy Yard, Portsmouth, N. H., EWR.
Industrial Department.

From: Industrial Manager,
To: Commandant.

DEC 24 1917

1. The following estimate for this work is submitted:

L. $425. M. $390. T. $815.

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1-1-393

26405-5231-0711174. 1st Indorsement.
(Cont'd.)

Subject: Alteration of building and railroad at Magazine #31. RAB.

2. This is considered to be a proper charge under Appropriation "Repairs and Preservation" and can be done by Yard labor, but there are no funds available for this work.

3. It is recommended that the matter be referred to the Bureau of Yards and Docks.

Acting.

No. 1-1-393

2nd Indorsement,
Navy Yard, Portsmouth, N.H., Dec. 27, 1917.

From: Commandant,
To: Bureau of Yards and Docks.

1. Forwarded; approved.

C. J. Boush

Sep 28 04 09:58a C R C I corp 603 433 3354 p.8

NAVY YARD NO.

(8)

Date, 3-1-15

Location	Bldg 71	Description	Planer
Group No.	00	and Size	10 x 10 x 8 (1 Belt) 4900 28 x 28
Unit No.		Make	
First cost	26,000	Drive	Ref. No.
Year installed	1860	Power consumed, H. P. per hour (estimated)	(If motor driven) Rated H. P.
Estimated life	120	Area obstructed, sq. ft.	Floor 4000
Appraised value, 1915	13,500	Number in operating gang and hourly wage	
1916			
1917			

Building factor		Interest and depreciation		
Power: Electric, air, steam, hydraulic		Maintenance and repairs		
Light, heat, and ventilation		Operating supplies		
Stores-transport factor		Tool room charges		
Organization		Jigs, dies, templates		
Supervision				
Sum No. 1		Sum No. 2		Total.
		Sum No. 1		
		Hourly rate,		

42

S. and A. Form No. 38. 4—2480

6

BUILDING 3I (CONT'D)

3I-63-27	Addition for navy exchange service station
28	" " " " " "
3I-65-29	Storm entrance
3I-66-30	Repairs to building 3I flooring & painting
3I-70-3I	Expansion of navy exchange retail sales & storage areas
32	" " " " " " " "
33	" " " " " " " "
3I-73-34	Lead free gas dispensing facility site plan
35	" " " " " Mrchanical & electrical
3I-74-36	" " " " " Alteration to navfac DWG. 2008I85

(10)

BUILDING 3I CONVERSION TO COMMIDDARY

3I-42-5	First floor & section
7	Refrigerator & toilet details
8	Heating & plumbing
9	Electrical work
9 rev.	" "
I0	
II	
I2	
I3	
I4	Cashiers desk
I5	
I6	
I7	Toilet for office personnel
I8	
I9	
20	
2I	
3I-55-22	Alliminum entrance for retail store
3I-57-23	Additional storage area
3I-63-24	Addition for navy exchange service station
25	" " " " " "
26	" " " " " "

4b

(11)

BUILDING 32

Facility: Powder Magazine

Designed By: Alexander Parris

Built: 1848-1849

BILDING 31

Facility: Shell House

Designed By: Alexander Parris, completed by Benjamin F. Chandler

Built : 1854-1855

1848 - In 1848, Alexander Parris, esg., received the appointment of civil engineer, retaining Mr. Calvin Brown as his assistant.

1853 - Alexander Parris, having died, after a long sickness, Benjamin F. Chandler was appointed civil engineer of the yard, an office he has continued to hold until the present time (1877) with great benefit to the public interests.

Extracted from: History of the United States Navy Yard, Portsmouth, NH
Geo. Henry Preble, Rear Admiral, USN, Washington 1892

3509 COPIES

(12)

NAVDOCKS FORM 115 REV.

PUBLIC WORKS DATA -- BUILDINGS

U. S. Navy Yard
Portsmouth, N. H.

Designation of Building: Commissary

~~Temporary~~ or Permanent (check one)

No. of Building: 31

Material: Foundation Stone, Granite Superstructure Granite, Wood Roof Ready Roofing, Slate

Length 103 ft. Width 62 ft. Stories 1 Height to Eaves 22 ft.

Floor Space 5400 sq. ft. Cubic Space ~~76,700~~ 143,920 cu. ft.

Built - date 1859 Cost $25,318 Additions $24,643 - 1942

For Buildings under Construction

Estimated Cost Anticipated date of Completion

Remarks:

30 Sept. 1944

Note: Submit separate card for each building under construction in addition to card for each completed building.

1-14525

(Over)

NAVDOCKS FORM 115 REV.

PUBLIC WORKS DATA -- BUILDINGS

U. S. Navy Yard
Portsmouth, N. H.

Designation of Building: Storehouse

~~Temporary~~ or Permanent (check one)

No. of Building: 32

Material: Foundation Stone, Granite Superstructure Granite Roof Slate

Length 50 ft. Width 35 ft. Stories 1 Height to Eaves 11 ft.

Floor Space 1,270 sq. ft. Cubic Space ~~11,430~~ 29,210 cu. ft.

Built - date 1869 Cost $ 10,000 Additions $

For Buildings under Construction

Estimated Cost Anticipated date of Completion

Remarks:

30 Sept. 1944

Note: Submit separate card for each building under construction in addition to card for each completed building.

Sep 28 04 10:00a C R C I corp 603 433 3354 p.13

(004) UIC..N00102
NSY PORTSMOUTH NH

CLASS 2 PROPERTY RECORD

(001) PR NO.....2-00122
(005) FACILITY NO..32
(106) SPEC AREA....

13

LOCATION

(101) COUNTRY..US UNITED STATES
(102) STATE....23 MAINE
(103) COUNTY...031 YORK
(104) CITY.....4250 KITTERY
(105) ND.....04
(107) MAP GRID.H4

GENERAL INFORMATION

(007) ACTION.....CORRECTION
(008) FAM HOUSING....NO
(009) EE DATE.....15 JUL 83
(011) PR REVIEW DATE.
(010) FACILITY NAME..
RADIOGRAPHIC BLDG

ACQUISITION

(201) ESTATE.....13 OTHER MIL FUND
(202) ACQ CONTRACT...
(203) ACQ DATE.....01 JUN 48
(204) GOVT COST..... $16,016
(207) LAND CCN.....91110

MEASUREMENTS

(301) LENGTH.... 50 FT
(302) WIDTH..... 35 FT
(303) HEIGHT.... 16 FT
(304) AREA..... 1,808 SF
(305) STORIES... 01
(307) IRREGULAR. NO

CONSTRUCTION

(401) YEAR BUILT.....1848
(402) CONSTRUCTION TYPE..PERMANENT
(403) YEAR IMPROVED.....
(404) ABMP CODE.....
(409) PROJECT NO.....
+(410) HISTORIC IND...R REGST

MAINTENANCE

(701) MAINT UIC..N00102
(702) PRIME USE....21348
(703) MFC...K NIF

STATUS / UTILIZATION

(502) CATEGORY CODE...21348
(501) USE..QUALITY ASSUR OFF-(V) (W)

(510) USER UIC.....N00102.....NSY PORTSMOUTH NH

	AREA/SF*	OTHER/	ALT/	DEF CODES
ADEQ (515)	1,808.00 (516)	(517)		(524)
SBST (518)	(519)	(520)		(525)
INAD (521)	(522)	(523)		(526)
TOTAL	1,808.00			

84JAN28 EFD.N62472 MC.N00037 *ACTIVITY.N00102 PR.2-00122

1. ACTIVITY	2. CITY	3. COUNTY	4. STATE/COUNTRY	5. COMPONENT
YORK SATELLITE	KITTERY	YORK	MAINE	4C

6. ACCTG. NO.	7. MGMT. BUREAU (Code)	8. FIN. BUREAU (Code)	9. STATE	10. CO.	11. CITY	12. DATE PREPARED	13. DIST.	14. ACTIVITY CODE	15. CARD NO.
102	BUSHIPS 5	BUSHIPS 5	018	031	4250	2/58	01	5867-650	2-00593

16. BUILT ON LAND (Type of ownership)	(Land category code)	17. YEAR BUILT	18. EST. LIFE	19. TYPE OF CONSTRUCTION	20. CONDITION
1 [X] OWNED 2 [ ] IN-LEASED OR OTHER	911-10	1942	20	PERM. [ ] SEMI. [X] TEMP. [ ]	USABLE U [X] T [ ] R [ ] C [ ] UNUSABLE N [ ]

21. BUILDING NUMBER	22. ELEVATION (1st floor)	23. MAP GRID NO.	24. VOL. CU. FT.	25. COST PER CU. FT.	26. TOTAL COST
31	114.8	H-8	139,520	0.4943	68,967.86

27. DESCRIPTION	28. NAVY CODE	29. AREA MEASURE QUANTITY	(Sym)	30. SQ. FT. NOT IN USE	31. OTHER MEASURE QUANTITY	(Sym)	32. CAPACITY QUANTITY	(Sym)
(a) PRI. USE Navy Exchange	74014	6489	SF					
(b) SEC. USE								
(c) TER. USE								
(d) OTHER USE								

34. DIMENSIONS

LINE	(a) LENGTH (ft.)	(b) WIDTH (ft.)	(c) HEIGHT (ft.)	(d) NO. OF STORIES
1.	103.7648.53		25.0	1
2.	102.6814.16		14.0	1
3.				
4.				
5.				

33. TOTAL AREA 6489

TOTAL SQ. FT. NOT IN USE

35. ROOF TYPE: Hip & Shed

36. MATERIAL CODES

(a) FOUNDATIONS	(b) EXTERIOR WALLS	(c) ROOF
6-J-JIP	6-99	59-P9

37. IN PROCESS OF DISPOSAL DATE	38. DATE REPORTED TO GSA	39. DATE DETERMINED SURPLUS	40. SURVEY OR DISPOSAL DATE

41. TYPE OF ACTION

[ ] 1. ACQUISITION [ ] 3. CANCELLATION

[ ] 2. CORRECTION [ ] 4. DISPOSITION

REMARKS:

Monthly Depreciation 174.47
Year Fully Depreciated 1962
Expense Group 121
Estimated Life 20
Undepreciated Value as of June 1957 $ 10468.66

BUILDING CARD — NAVCOMPT FORM 277 (5 PT) (REV. 8-57) — COMPLETE REVERSE SIDE AS NECESSARY

MAJOR CONSTRUCTION BY

CONTRACT NO.	TYPE OF CONTRACT	YARD LABOR J.O. NO.
SPECIFICATION NO.	YARDS & DOCKS DRAWING NOS. Pla Dwg 31-X-1, 2 - 31-42-5; 31-46-6, 7.	
CONTRACTOR (Name)	(City and State)	

METHOD (if other than Contract): PURCHASED ____ TRANSFERRED ____ LEASED ____

ESTIMATED LIFE: A. 20 yrs B.

A. SPRINKLER SYSTEM [ ] YES [X] NO

B. TELEPHONE SYSTEM [X] YES [ ] NO

MISCELLANEOUS

HEATING SYSTEM		ELECTRICAL CURRENT			HOT WATER	
FUEL	TYPE	VOLTS	PHASES	CYCLES	FUEL	STORAGE CAPACITY (Gals)
Oil	Steam	120-220	3	60	Steam	60

CRANES			ELEVATORS		
NUMBER OF CRANES	IDENTIFICATION NO.	CAPACITY (Tons)	NUMBER OF ELEV.	IDENTIFICATION NO.	CAPACITY (Tons)

REMARKS
PROD STORAGE
3201-E-0417/0763
3201-E-0419/0763
[illegible]

[redacted]

Monthly Depreciation 96.47
Year Fully Depreciated 1962
Expense Group 400
Estimated Life 20
Undepreciated Value as of June 1953 $8,123.48

NAVCOMPT FORM 277 (4-54)

CATEGORY
CATEGORY
CATEGORY
CONTROLLING CAPACITY
WIDTH (Feet)
SYMBOL
LENGTH (Feet)
VOLUME (Cu. Ft.)
OUT-GRANTED TO
OTHER GOVT. AGENCY
GOV. LOC.
STD. OR ENG.
PRIVATE ENT.
4530
103-76
102-68
1-39-520

...n Naval Shipyard, Portsmouth, Rockingham, N. H. BuShips

(City) (County) (State or Territory) (Country) (Bureau)

CATEGORY	CODE
Storage, Covered	74-31-00

TYPE OF CONSTRUCTION: [ ] PERM. [X] SEMI-PERM. [ ] TEMP.

CARD NO. 2-00593

BUILDING CAPACITY	CATEGORY UNIT SYMBOL	CATEGORY UNIT QUANTITY
4530		

PART	LENGTH (Feet)	WIDTH (Feet)	HEIGHT (Feet)	NUMBER OF STORIES
1	103.76	48.53	35.00	1
2	102.68	14.16	16.00	1
3				
4				
5				

VOLUME (Cu. Ft.)	COST PER CU. FT.	ANNUAL RENTAL PAID
139,520	0.460	

UTILIZATION

OUT-GRANTED TO	SQUARE FEET	ANNUAL RENTAL REC'D
OTHER GOV/AGCY'S (1)		
ST. OR LOC. GOV'T (2)		
PRIVATE ENT. (3)		

STATUS: OWNED 1 [X]; IN-LEASED 2 [ ]; OTHER 3 [ ]

BUILDING: IN USE 1 [X]; VACANT 2 [ ]

CONDITION: USABLE U [X]; UNUSABLE N [ ]

BUILT ON LAND: GOV/OWNED 1 [X]; IN-LEASED 2 [ ]; OTHER 3 [ ]

LAND CATEGORY CODE: 95-11-00

MATERIAL CODE		
FOUNDATION	EXT. WALLS	ROOF
J-C	J-W	L-OW

LIVE LOAD (Lbs. per sq. ft.)	BASEMENT	FIRST	SECOND	THIRD	FOURTH	FIFTH
		200				
MATERIAL CODE		C-W				
SQ. FT. FLOOR		6489				

SQ. FT. FLOOR AREA: 6489

EST. REPLACEMENT COST:

BUREAU CODE: 5	DISTRICT: 01
FOREIGN COUNTRY, STATE OR TERR. CODE: 18	
COUNTY CODE (U.S. only): 031	
ACTIVITY CODE: 5867.650	ACCOUNTING NO.: 102

TYPE OF ACTIVITY

IND. ACTIVE: Gov't Op. 1 [X]; Cont. Op. 2 [ ]; INACTIVE 3 [ ]

NON-IND. ACTIVE 4 [ ]; INACTIVE 5 [ ]

YEAR BUILT: 1859-1942

TOTAL COST (or appraised value if in-leased or other): 64,287.00

BUILDING NO.: 31

DATE OF CARD: Aug. 54

DATE LAST INV.: 2/28/50

SURVEY DATE:

☆ U.S. Government Printing Office: 1954 - 294936

MAJOR CONSTRUCTION BY

CONTRACT NO.	TYPE OF CONTRACT	YARD LABOR J.O. NO.	METHOD AND DATE OF ACQUISITION (If other than by construction)
SPECIFICATION NO.	YARDS & DOCKS DRAWING NOS. PW Dwg. 31-X-1,2;31-42-5;31-46-6,7		PURCHASED
CONTRACTOR (Name)	(City and State)		TRANSFERRED
			LEASED
A. SPRINKLER SYSTEM [ ] YES [X] NO	B. TELEPHONE SYSTEM [X] YES [ ] NO		ESTIMATED LIFE A. 20 Yrs. B.

19

MISCELLANEOUS

HEATING SYSTEM		ELECTRICAL CURRENT			HOT WATER	
FUEL	TYPE	VOLTS	PHASES	CYCLES	FUEL	STORAGE CAPACITY (Gals)
Oil	Central	110-220	3	60	Steam	60

CRANES			ELEVATORS		
NUMBER OF CRANES	IDENTIFICATION NO.	CAPACITY (Tons)	NUMBER OF ELEV.	IDENTIFICATION NO.	CAPACITY (Tons)

REMARKS

Prod. Storage

3201-E-0417/0763
3201-E-0419/0763
42729 9200

NAVCOMPT FORM 277 (4-54)

4e (20)

Place: Portsmouth N.H. Navy Yard.

Structure: Magazine

No. 31

Material: Foundation Stone Superstructure Stone Roof Slate on wood

Length 108'2" Width 48' Stories 1 Height eaves 15'5"

Floor space 4074 sq. ft.; Cubic space 68,305 cu. ft.

Built 1860 Cost, $ 25,318 Additions, $

Cost to duplicate, $ 52000.0 Deterioration, $ 14,600.0

Present value, $ 22,400

Notes:

~~Nov. 1, 1919~~

(Corrected to ~~June 15, 1920~~) Aug. 15, 1940

(Continue on other side)

N. Y. D. Form 115 (Revised)

Sep 28 04 10:05a C R C I corp 603 433 3354 p.21

NAVDOCKS FORM 115 REV.

PUBLIC WORKS DATA -- BUILDINGS

U. S. Navy Yard
Portsmouth, N. H.

(21)

Designation of Building: Commissary

4-6

~~Temporary~~ or Permanent (check one)

No. of Building: 32

Material: Foundation Stone, Granite Superstructure Granite, Wood Roof Ready Roofing, Slate

Length 103 ft. Width 62 ft. Stories 1 Height to Eaves 22 ft.

Floor Space 5400 sq. ft. Cubic Space ~~76,732~~ 143,920 cu. ft.

Built - date 1859 Cost $25,328 Additions $24,643 - 1942

For Buildings under Construction

Estimated Cost Anticipated date of Completion

Remarks:

30 Sept. 1944

Note: Submit separate card for each building under construction in addition to card for each completed building.

1-14525

(Over)

Loc #5 (32)

Place: Portsmouth, N.H. Navy Yard

Structure: Magazine

No. 32

Material: Foundation Stone Superstructure Stone Roof Slate on wood

Length 50'0" Width 35'0" Stories 1 Height eaves 10'

Floor space 1300 sq. ft.; Cubic space 18200 cu. ft.

Built ~~1861~~ 1848 Cost, $ 10,000 Additions, $

Cost to duplicate, $ 9300 Deterioration, $2,930.00

Present value, $ 6370

Notes:

~~Nov. 1, 1919~~

(Correction to ~~June 17, 1921~~) Aug. 15, 1940

(Continue on other side)

N. Y. D. Form 115 (REVISED)

PORTSMOUTH NAVAL SHIPYARD CAPABILITY

Facilities

385
1 June 1962

Description	Capacity	Location	Comments
700 PSIG - Steam Facility The steam facility occupies 1900 square feet of area within the same building housing the Pure Water Facility. The facility consists of a 60,000 lbs. per hour, 700 PSIG, 600° F. package type oil fired steam boiler feed directly from 10,000 gallon capacity railroad tank car on a siding and a 500 gallon capacity emergency storage tank.	Steam can be provided to Berths 11B, 11C, 13B, and 13C at a rate of 48,000 lbs. per hour at 700 PSI. Only one ship can be serviced at one time from this facility.	Building 277	The package steam plant is designed for 60,000 lbs. per hour but only 48,000 lbs. per hour can be delivered to the pier site because of the steam required in the facility to operate the steam driven auxiliary equipment.
Gammagraphing Facilities at this Shipyard consist of motar filled concrete block wall cubicles upwards to 48" thick and built to a height of 10'. The facilities are constructed in various locations throughout the Shipyard adjacent to work in process which require X-ray as a method of inspection.	Phys. size - 35' x 50' area 1750 sq. ft. Shielding capacity - 260 KVP X-ray, 100 curies of Iridium 192, 50 curies of Cobalt 60. Material handling - 1 truck jack-stacker, electric, 4000 lbs. load. Facility can handle mat. which will fit through door 3'6" x 6'9" high.	Bldg. 32	Granite block building formerly used as an ammunition storage space. Outside walls are approximately 40" thick. This is the first Shipyard gammagraph facility. Its primary purpose is to X-ray lead slabs used for shielding on nuclear powered submarines.
	Phys. size - 16'8" x 29'4" area approximately 489 sq. ft. Shielding capacity - 260 KVP X-ray, 100 curies of Iridium 192, 50 curies of Cobalt 60. Crane Services - 1 monorail, 2000 lbs. capacity, hand operated hoist and trolley. Can handle mat. up to 4'0" wide and ht. of 6'0", limited by capacity of hoist.	Bldg. 96	X-ray of castings produced in the foundry.

(58)

PORTSMOUTH NAVAL SHIPYARD CAPABILITY

Principal Shops and Buildings

386A
1 Jun 1962

Name of Shop or Building	Dimensions of Shop or Building	Material Processed	Largest Exit Width	Largest Exit Height	Weight of Material or No. & Size of Units Produced per 8 Hours	Comments
Shop 56, Pipefitter Shop, Bldg. 2	100'-0" long x 50'-0" wide x 56'-0" high 3 story, 6,770 sq. ft.	Pipe insulating covering on 2nd floor	5' - 3"	10'-0"	Insulating covering of 14" IPS pipe	1st floor has test equipment storage and locker room; 2nd floor, pipe insulators workshop; 3rd floor, light storage- 10 lb. sq. ft. loading capacity. Largest exit is on 2nd floor
Shop 72, Riggers and Laborers Shop, Bldg. 7	250'-0" long x 70'-0" wide x 50'-0" high 3 story, 48,660 sq. ft.	Canvas and plastic coated tarpaulins	11'-9"	10'-2"	100' x 50' Largest tarpaulin	1st floor- office, small machine shop, shop store, equipment storage; 2nd floor- office, sailmakers room; 3rd floor- sail loft (used for making wire rope pendants and safety lines)
Field Office for Bldg. 178 Supervisor Bldg. 10	121'-0" long x 60'-0" wide x 42'0" high 2 story, 9830 sq. ft.	None	9'-10"	9'-11"	None	1st floor- offices and welding issue; 2nd floor- light temporary equipment storage, 100 lb. sq. ft. loading.
Safety, Industrial Hygiene and Electronics School, Bldg. 14	120'-0" long x 50'-0" wide x 55'-0" high 3 story 15,990 sq. ft.	None	8'-0"	9'-0"	None	1st floor- Bank, Safety Equipment issue, and time clocks; 2nd floor- Safety Div. Office, Industrial Hygiene Office; 3rd floor- Electronics Training School.
Shop 71, Paint Shop, Mock-up, Restaurant and Design Office Bldg. 18	287'0" long x 160'-0" wide x 40'0" high 2 story 42,840 sq. ft.	None	7'-0"	11'-6"	None	1st floor- paint shop office, shop store and equipment storage, 1/4 scale mock-up, restaurant; 2nd floor- Design office and Executive dining room.
Material Test Lab, Print Shop and Training School, Bldg. 20	171'-0" long x 65'-0" wide x 40'-0" high 3 story 30,375 sq. ft.	Destructive and non-destructive testing- including complete chemical analysis in M.T.L.	5'-10"	9'-0"	Print Shop- 320,000 8" x 10-1/2" paper printed in 8 hr. shift.	1st floor- Print Shop, Field Office, Blueprint Issue, Rubber Test Lab and latrine; 2nd floor- Material Test Lab; 3rd floor- training school.
Lead Casting Immagraph, Bldg. 32	50'-0" long x 36'-0" wide x 22'-0" high 1 story 5,290 sq. ft.	Leading castings X-Rayed	3'-6"	6'-10"	32-1/2" length 52-1/2" width 8" thick lead slabs	50 Curie Cobalt 60 Source used in this building

1 JUNE 1962

SUBMARINE
CONSTRUCTION AND REPAIR CAPABILITY

PORTSMOUTH NAVAL SHIPYARD
PORTSMOUTH, NEW HAMPSHIRE

PREPARED BY PLANT EQUIPMENT AND
FACILITIES BRANCH, PRODUCTION
ENGINEERING DIVISION, PRODUCTION
DEPARTMENT

ACTIVITY Portsmouth Naval Shipyard, ~~Portsmouth,~~ Kittery, ~~Rockingham,~~ York, ~~N.H.~~ Maine | Bu Ships

(Name) (City) (County) (State or Territory) (Country) (Bureau)

CATEGORY

DESCRIPTION Gammagraph (SSN'S) ~~Storage~~ Bldg

CODE 223-01

BUILDING CAPACITY: 76

CATEGORY UNIT — SYMBOL: — QUANTITY: —

PART	LENGTH (Feet)	WIDTH (Feet)	HEIGHT (Feet)	NUMBER OF STORIES
1	50.44	35.85	21.30	1
2				
3				
4				
5				

VOLUME (Cu. Ft.): 27,500

COST PER CU. FT.: .572

ANNUAL RENTAL PAID:

UTILIZATION

OUT-GRANTED TO	SQUARE FEET	ANNUAL RENTAL REC'D
OTHER GOV/AGCY'S (1)		
ST. OR LOC. GOV'T (2)		
PRIVATE ENT. (3)		

TYPE OF CONSTRUCTION: [x] PERM. [ ] SEMI-PERM. [ ] TEMP.

STATUS: OWNED 1 [x] IN-LEASED 2 [ ] OTHER 3 [ ]

BUILDING: IN USE 1 [x] VACANT 2 [ ]

CONDITION: USABLE U [x] UNUSABLE N [ ]

BUILT ON LAND: GOV/OWNED 1 [x] IN-LEASED 2 [ ] OTHER 3 [ ]

LAND CATEGORY CODE: 911-01

MATERIAL CODE

FOUNDATION	EXT. WALLS	ROOF
		L

CARD NO. 2-09 122

BUREAU CODE: 5 — DISTRICT: 01

FOREIGN COUNTRY, STATE OR TERR. CODE: 18

COUNTY CODE (U.S. only): 031

ACTIVITY CODE: 5867-650 — ACCOUNTING NO.: 102

TYPE OF ACTIVITY

IND. — ACTIVE: Gov't Op. 1 [x] Cont. Op. 2 [ ] — INACTIVE 3 [ ]

NON-IND. — ACTIVE 4 [ ] INACTIVE 5 [ ]

YEAR BUILT: 1848

TOTAL COST (or appraised value if in-leased or other): 15728. ~~[illegible]~~

	BASEMENT	FIRST	SECOND	THIRD	FOURTH	FIFTH
LIVE LOAD (Lbs. per sq. ft.)						
MATERIAL CODE		W				
SQ. FT. FLOOR		1808				

SQ. FT. FLOOR AREA: 1808

EST. REPLACEMENT COST:

BUILDING NO.: 22 — DATE OF CARD: 7/56

DATE LAST INV.: 8/54 — SURVEY DATE:

☆ U.S. Government Printing Office: 1954 - 294936

Corrected Card & Acquisition

MAJOR CONSTRUCTION BY

CONTRACT NO.	TYPE OF CONTRACT	YARD LABOR J.O. NO. Unavailable
SPECIFICATION NO.	YARDS & DOCKS DRAWING NOS. PW dwg 32-48-1, 32 49-3	
CONTRACTOR (Name)	(City and State)	

METHOD AND DATE OF ACQUISITION (If other than by construction)

PURCHASED

TRANSFERRED

LEASED

ESTIMATED LIFE A. 80 yrs B.

A. SPRINKLER SYSTEM [ ] YES [X] NO

B. TELEPHONE SYSTEM [ ] YES [ ] NO

MISCELLANEOUS

HEATING SYSTEM		ELECTRICAL CURRENT			HOT WATER	
FUEL	TYPE	VOLTS	PHASES	CYCLES	FUEL	STORAGE CAPACITY (Gals)

CRANES			ELEVATORS		
NUMBER OF CRANES	IDENTIFICATION NO.	CAPACITY (Tons)	NUMBER OF ELEV.	IDENTIFICATION NO.	CAPACITY (Tons)

REMARKS

Prod - storage

alterations J.O. 85102-0401 - 739.20
85102-0402 - 569.76
01400-0-3F2.4420.00
5728.96

Monthly Depreciation 25.87
Year Fully Depreciated 1977
Expense Group 300
Estimated Life 80
Undepreciated Value as of June 1958
$ 5728.96

NAVCOMPT FORM 277 (4-54)

PORTSMOUTH (Name) CATEGORY CODE

DESCRIPTION Gas Station

BUILDING CAPACITY 760

SYMBOL	WIDTH (Feet)	HEIGHT (Feet)
	35.5	

LENGTH (Feet)	VOLUME (Cu. Ft.)
50.44	27,500

FLOOR 1 2 3 4 5

OUT-GRANT

OTHER

METHOD AND DATE OF ACQUISITION (If other than by construction)

ITY Portsmouth Naval Shipyard, ~~Portsmouth~~, ~~Rockingham~~, ~~N.H.~~ Kittery, York, Maine
(Name) (City) (County) (State or Territory) (Country) (Bureau) Bu Ships

CATEGORY

DESCRIPTION Garrison House (Sons) 81 Bldg. CODE 223-01

BUILDING CAPACITY	CATEGORY UNIT SYMBOL	CATEGORY UNIT QUANTITY
760		

PART	LENGTH (Feet)	WIDTH (Feet)	HEIGHT (Feet)	NUMBER OF STORIES
1	50.44	35.85	21.50	1
2				
3				
4				
5				

VOLUME (Cu. Ft.)	COST PER CU. FT.	ANNUAL RENTAL PAID
27,500	~~0.384~~ 0.574	

UTILIZATION

OUT-GRANTED TO	SQUARE FEET	ANNUAL RENTAL REC'D
OTHER GOV/AGCY'S (1)		
ST. OR LOC. GOV'T (2)		
PRIVATE ENT. (3)		

TYPE OF CONSTRUCTION: [X] PERM. [ ] SEMI-PERM. [ ] TEMP.

STATUS: OWNED 1 [X] IN-LEASED 2 [ ] OTHER 3 [ ]

BUILDING: IN USE 1 [X] VACANT 2 [ ]

CONDITION: USABLE U [X] UNUSABLE N [ ]

BUILT ON LAND: GOV/OWNED 1 [X] IN-LEASED 2 [ ] OTHER 3 [ ]

LAND CATEGORY CODE: ~~[illegible]~~

MATERIAL CODE: FOUNDATION J EXT. WALLS S ROOF L

CARD NO. 2-00122

BUREAU CODE 5 DISTRICT 01

FOREIGN COUNTRY, STATE OR TERR. CODE 18

COUNTY CODE (U.S. only) 031

ACTIVITY CODE 5867-650 ACCOUNTING NO. 102

TYPE OF ACTIVITY

	ACTIVE		
IND.	Gov't Op. 1 [X]	Cont. Op. 2 [ ]	INACTIVE 3 [ ]
NON-IND.	ACTIVE 4 [ ]		INACTIVE 5 [ ]

YEAR BUILT 1848

TOTAL COST (or appraised value if in-leased or other) 15728.96

LIVE LOAD (Lbs. per sq. ft.)	BASEMENT	FIRST	SECOND	THIRD	FOURTH	FIFTH
MATERIAL CODE		W				
SQ. FT. FLOOR		1808				

SQ. FT. FLOOR AREA 1808

EST. REPLACEMENT COST

BUILDING NO. 32

DATE OF CARD 8/15/46

DATE LAST INV. 4/30/47

SURVEY DATE

(8c)

Corrected Card + Acquisition

☆ U.S. Government Printing Office: 1954 - 294936

MAJOR CONSTRUCTION BY			METHOD AND DATE OF ACQUISITION (If other than by construction)
CONTRACT NO.	TYPE OF CONTRACT	YARD LABOR J.O. NO.	
SPECIFICATION NO.	YARDS & DOCKS DRAWING NOS.		PURCHASED
CONTRACTOR (Name)	(City and State)		TRANSFERRED
			LEASED
A. SPRINKLER SYSTEM ☐ YES ☒ NO	B. TELEPHONE SYSTEM ☐ YES ☒ NO		ESTIMATED LIFE A. 80 YRS B.

MISCELLANEOUS

HEATING SYSTEM		ELECTRICAL CURRENT			HOT WATER	
FUEL	TYPE	VOLTS	PHASES	CYCLES	FUEL	STORAGE CAPACITY (Gals)

CRANES			ELEVATORS		
NUMBER OF CRANES	IDENTIFICATION NO.	CAPACITY (Tons)	NUMBER OF ELEV.	IDENTIFICATION NO.	CAPACITY (Tons)

REMARKS
FEED STORAGE

J.O 85102-0401
85102-0402
01400-0382
@ 5728.96

Monthly Depr.
Yrly Fully Depr.
Exp Group

Monthly Depreciation ~~[illegible]~~ 25.87
Year Fully Depreciated 1978
Expense Group 300
Estimated Life 80
Undepreciated Value as of June 1958
$ ~~[illegible]~~ 5728.96

NAVCOMPT FORM 277 (4-54)

[redacted] | [redacted] | YORK | [redacted]

1. ACTIVITY | 2. CITY | 3. COUNTY | 4. STATE/COUNTRY | 5. COMPONENT

5C (30 3)

6. ACCTG. NO.	7. MGMT. BUREAU (Code)	8. FIN. BUREAU (Code)	9. STATE	10. CO.	11. CITY	12. DATE PREPARED	13. DIST.	14. ACTIVITY CODE	15. CARD NO.
102	[redacted] 5	[redacted] 5	018	031	4250	2/58	01	5967-650	2-00122

16. BUILT ON LAND (Type of ownership)	(Land category code)	17. YEAR BUILT	18. EST. LIFE	19. TYPE OF CONSTRUCTION	20. CONDITION
1 [X] OWNED 2 [ ] IN-LEASED OR OTHER	911-10	1848	50	PERM. P[X] SEMI. S[ ] TEMP. T[ ]	USABLE U[X] T[ ] R[ ] C[ ] UNUSABLE N[ ]

21. BUILDING NUMBER	22. ELEVATION (1st floor)	23. MAP GRID NO.	24. VOL. CU. FT.	25. COST PER CU. FT.	26. TOTAL COST
32	110.1	H-8	27,500	0.5824	16,016.96

27. DESCRIPTION	28. NAVY CODE	29. AREA MEASURE QUANTITY	(Sym)	30. SQ. FT. NOT IN USE	31. OTHER MEASURE QUANTITY	(Sym)	32. CAPACITY QUANTITY	(Sym)
(a) PRI. USE Prod. Gammagraph Rm	4330	1808	SF					
(b) SEC. USE								
(c) TER. USE								
(d) OTHER USE								

34. DIMENSIONS

LINE	(a) LENGTH (ft.)	(b) WIDTH (ft.)	(c) HEIGHT (ft.)	(d) NO. OF STORIES
1.	50.44	35.85	16.5	1
2.				
3.				
4.				
5.				

33. TOTAL AREA 1808 SF

TOTAL SQ. FT. NOT IN USE

35. ROOF TYPE [redacted]

36. MATERIAL CODES

(a) FOUNDATIONS	(b) EXTERIOR WALLS	(c) ROOF
6	6	59

37. IN PROCESS OF DISPOSAL DATE	38. DATE REPORTED TO GSA	39. DATE DETERMINED SURPLUS	40. SURVEY OR DISPOSAL DATE

41. TYPE OF ACTION

[ ] 1. ACQUISITION [ ] 3. CANCELLATION

[ ] 2. CORRECTION [ ] 4. DISPOSITION

REMARKS:

BUILDING CARD — NAVCOMPT FORM 277 (5 PT) (REV. 8-57) — COMPLETE REVERSE SIDE AS NECESSARY

NAVCOMPT FORM 277 (5 FT) (REV. 8-57)

FLOORS →	42. BASEMENT	43. FIRST FLOOR	44. SECOND FLOOR	45. THIRD FLOOR	46. FOURTH FLOOR	47. FIFTH FLOOR
(a) LIVE LOAD (Lbs. per sq. ft.)		not lim				
(b) MATERIAL CODE		JJ				
(c) SQ. FT. FLOOR		1893				

48. MAJOR CONSTRUCTION BY

(a) CONTRACT NO.	(b) TYPE OF CONTRACT	(c) YARD LABOR J. O. NO.	(d) SPECIFICATION NO.	(e) YARDS AND DOCKS DRAWING NO. (S)
-	-	NA	-	-

(f) CONTRACTOR (Name)	(City)	(State)
-	-	-

49. MISCELLANEOUS

(a) HEATING SYSTEM FUEL	TYPE	(b) ELECTRICAL CURRENT VOLTS	PHASES	CYCLES	(c) HOT WATER FUEL	STORAGE CAP. (Gals.)	(d) CRANES NO. OF	IDENTIFICATION NO.	TON CAPACITY	(e) ELEVATORS NO. OF	IDENTIFICATION NO.	TON CAPACITY
Gas	Hot water	120/208	1	60	-	-	-	-	-	-	-	-

(f) SPRINKLER SYSTEM		(g) TELEPHONE SYSTEM		50. DESIGN	(a) COST	(b) CONTRACT NO.
YES	NO X	YES	NO X		-	-

51. ACQUISITION INFORMATION

(a) DATE	(b) METHOD	(Code)	(c) APPROPRIATION	(d) PROJECT NUMBER
1948				

52. DISPOSITION INFORMATION

(a) DISPOSED OF TO:	(b) DISPOSAL NO.	(c) METHOD	(Code)	(d) DATE DISPOSED OF	(e) CONSIDERATION

53. NET CHANGE ON CANCELLED CARDS

(a) REASON FOR CANCELLATION	(b) CODE	(c) NEW CARD NO.	(e) NET CHANGE	(f) APPROPRIATION AND PROJECT NUMBER
	☐ CORR. ☐ CAP. IMPR.	(d) FORM NO.	☐ INCR. ☐ DECR. $ _____ COST TO GOVERNMENT	Month, Depreciation 25.07 Year Fully Depreciated 1977 ~~Expense Group~~ 300 Estimated Life 20 Undepreciated Value as of June 1957 606.36

54. BUILDING TITLE PROD[redacted] Room

(4)

NAVDOCKS FORM 115 REV.

PUBLIC WORKS DATA -- BUILDINGS

U. S. Navy Yard
Portsmouth, N. H.

5d

(32)

Designation of Building: Storehouse

~~Temporary~~ or Permanent (check one)

No. of Building: 32

Material: Foundation Stone, Granite Superstructure Granite Roof Slate

Length 50 ft. Width 35 ft. Stories 1 Height to Eaves 14 ft.

Floor Space 1,270 sq. ft. Cubic Space ~~[illegible]~~ 24,210 cu. ft.

Built - date 1888 Cost $ 10,000 Additions $

For Buildings under Construction

Estimated Cost Anticipated date of Completion

Remarks:

30 Sept. 1944

Note: Submit separate card for each building under construction in addition to card for each completed building.

1-14525

(Over)

NAVY YARD NO. 2 3

Date, 3-1-15 5e

Location	Bldg 38	Description	Planer gang Steel (63)
Group No.	4 00	and Size	50 x 50 x 5 (136 ft) 1770 lbs
Unit No.		Make	
First cost	10,000	Drive	Ref. No.
Year installed	1861	Power consumed, H. P. per hour (estimated)	(If motor driven) Rated H. P.
Estimated life	20% 120	Area obstructed, sq. ft.	floor 1300
Appraised value, 1915	40,000	Number in operating gang and hourly wage	
1916			
1917			

Building factor		Interest and depreciation		
Power: Electric, air, steam, hydraulic		Maintenance and repairs		
Light, heat, and ventilation		Operating supplies		
Stores-transport factor		Tool room charges		
Organization		Jigs, dies, templates		
Supervision				
Sum No. 1		Sum No. 2		Total.
		Sum No. 1		

S. and A. Form No. 38. 4—2186

Hourly rate,

Sep 28 04 10:10a C R C I corp 603 433 3354 p.34

BUILDING # 32 (PRESENT MAGAZINE

32-42-5	
32-49-6	Heat
32-56-7	Modification of gammagraph room
8	Gammagraph - Electrial room

#6 (33)

GOVERNMENT OWNED STORAGE, NAVAL DISTRICT

LOCATION in Navy Yard or Dist. (No. of bldg.)	Area in sq. ft.	Condition of building.	Type of Bldg. (Dimensions & No. stories). Adjoining open storage space, if any.
33	560	Good	1 story, ~~stone~~ 30' x 22'

Is bldg. heated?	Character material stored, (brief description.)	No. and size of elevators
No	Ordnance stores	
Approx. per cent filled as of 1 January 1919		No. and capacity of overhead cranes
1		

(over)

Sep 28 04 10:11a C R C I corp 603 433 3354 p.36

In reply address not the signer of this letter, but Commandant, Navy Yard, Portsmouth, N. H.

Refer to No. NT1/NY1-(2)

U. S. NAVY YARD

Portsmouth, N. H.

11 June 1937

From: Commandant
To: Bureau of Ordnance

SUBJECT: Storage of ammunition and explosives from ships under repair at Navy Yard, Portsmouth, N. H.

Reference: (a) Naval Operations letter Op-23C-KAH 4/4/30 NY1/S78-3(300331), 5 April 1930, to Commander, Control Force.
(b) Bu. Ordnance Manual, Art. 1409.

Enclosure: (A) Copy of reference (a).

1. It is routine practice for submarines undergoing overhaul at this Yard to store, temporarily, their ammunition and explosives in the Yard Magazines. This consists usually of 3" fixed ammunition, small arms and pyrotechnics. Occasionally, torpedo war heads and torpedo detonators are placed in temporary storage. The last instance of the storage of these latter explosives was in the case of the PORPOISE when ten war heads and twelve detonators remained in storage from 1 June to 11 August 1936.

2. In view of the instructions, reference (a), information is requested as to the Bureau's policy with relation to taking ships' ammunition at this Yard for temporary storage.

3. Reference (b) directs that war heads be stored in bomb-type ammunition magazines with bases resting in stowage rings provided by the Bureau of Ordnance. The magazines at this Yard are not of bomb-type and are not equipped with stowage rings, nor has hoisting equipment for handling war heads been installed.

4. Instructions are requested.

C. W. COLE.

REPRODUCED AT THE NATIONAL ARCHIVES

(34)
10

NYL/S78(18) (F12)

JUN 23 1937

From: The Chief of the Bureau of Ordnance.
To: Commandant, Navy Yard,
Portsmouth, N.H.

Subject: Storage of ammunition and explosives from submarines undergoing overhaul at Navy Yard, Portsmouth, N.H.

Reference: (a) Commandant, Navy Yard, Portsmouth, N.H., Ltr. NYL/S78-3 (300331) of 11 June 1937.
(b) CNO Ltr. File SP-23CKAH 4/4/30 NYL/S78-3 (300331) of April 5, 1930.
(c) House Document No. 199 - 70th Congress.

1. So far as the records of this Bureau show, reference (b) contains the latest instructions for handling ammunition of submarines undergoing overhaul at the Navy Yard, Portsmouth, N.H.

2. In view of the current practice as set forth by the Commandant in paragraph one of reference (a), the Bureau has examined the latest map of the Navy Yard, Portsmouth, N.H., available in this Bureau. It is noted that Buildings Nos. 31 and 32 are classified as magazines and that Buildings 33 and 34 are classified as small houses, temporarily used as store houses by the U.S. Marine Corps. Information is requested as to whether it would be practicable for the Marines to utilize either Buildings 31 or 32 for the storage of material now stored in Buildings 33 and 34. If such exchange of facilities be practicable, the Bureau would recommend to the Chief of Naval Operations that reference (b) be modified to permit the Commandant to utilize Buildings 31 and 32, one for the storage of fixed ammunition and the other for the storage of small arms ammunition and pyrotechnics temporarily turned in by submarines undergoing overhaul at the Navy Yard, Portsmouth.

3. The requirements of reference (c) which set forth the standards for ammunition storage, provide that storage for approximately 4,000 pounds of high explosives must be generated by at least 800' from any inhabited building and at least 2201 from a highway or navigable channel. It is not apparent from the map that such distance can be obtained at any point within the limit of the Navy Yard, Portsmouth. It is requested that the Commandant advise the Bureau whether such safety distances could be obtained. In the event that such distances are

NYI/S78(18) (F12)

practicable, the Bureau would recommend the construction of a small igloo type magazine capable of holding the warheads from one or two submarines.

4. In the event that safety distances as described above cannot be met at the Navy Yard, Portsmouth, the Bureau is prepared to recommend to the Chief of Naval Operations that submarines proceeding to Portsmouth for overhaul, involving the necessity of work in the vicinity of the warhead storage, proceed via Boston for the purpose of turning in warheads for temporary storage at the Naval Ammunition Depot, Hingham.

IMS

H. R. Stark.

Sep 28 04 10:14a C R C I corp 603 433 3354 p.39

(39)

7b

In reply address not the signer of this letter, but Commandant, Navy Yard, Portsmouth, N. H.

Refer to No. NT1/NY1-(2)

U. S. NAVY YARD
Portsmouth, N. H.

29 June 1937

From: Commandant
To: Bureau of Ordnance

SUBJECT: Storage of ammunition and explosives from ships under repair at Navy Yard, Portsmouth, N.H.

Reference: Bu.Ord. letter NY1/S78(18) (F12), 23 June.

1. Replying to paragraph 2 of reference, shell houses, Buildings 33 and 34, are old buildings and not as well suited for ammunition and explosives as are Buildings 31 and 32. Building 33 is, however, now being used as a detonator storage, exclusively.

2. Unless otherwise directed, the Yard will continue to receive 3" fixed ammunition, small arms ammunition and pyrotechnics for temporary storage.

3. Inasmuch as prescribed clearances for high explosives cannot be had at this Yard, it is recommended that submarines proceeding to Portsmouth for overhaul be directed to leave war heads in suitable storage before coming to the Yard.

4. In this connection, however, the Bureau's attention in invited to the fact that there were received in the magazine storage at this Yard, July 1936, 8 depth charges, Mk 11-2, loaded with Grade "B" TNT, for experimental submarine tests. Two of these charges remain in storage at the present time, but will be used in tests to be completed in July. These are stored separately from ammunition and other explosives.

C. W. COLE.

REPRODUCED AT THE NATIONAL ARCHIVES

REPRODUCED AT THE NATIONAL

/878(21)(F12)

From: The Chief of the Bureau of Ordnance.
To: Commandant, Navy Yard,
Portsmouth, N. H.

Subject: Storage of ammunition and explosives from ships under repair at Navy Yard, Portsmouth, N. H.

References: (a) BuOrd Ltr. NY1/878(18)(F12) of 23 June, 1937.
(b) Comdt. Ports. Ltr. NT1/NY1-(2) of 29 June, 1937.

1. It is satisfactory to the Bureau of Ordnance for the Commandant to receive from ships undergoing overhaul 3" fixed ammunition, small arms ammunition and pyrotechnics for temporary storage, continuing the current practice of storing such material in Buildings 31 and 32. In separate correspondence the Bureau is recommending to the Chief of Naval Operations that submarines proceeding to Portsmouth for overhaul be directed to turn in war heads and detonators to the Naval Ammunition Depot, Hingham, for storage before proceeding to the yard.

2. The action of the Commandant in retaining at the yard temporarily until used in tests , 8 depth charges loaded with Grade B TNT, is approved.

H. R. Stark.

IMS

C: Chief of Nav. Op.

Sep 28 04 10:15a C R C I corp 603 433 3354 p.41

(4)

7d

Op-23C-RSM
NY1/S78-3(370709)

NAVY DEPARTMENT
Office of Chief of Naval Operations
WASHINGTON

21 July, 1937.

From: Chief of Naval Operations.
To : Commanding Officer, U.S.S. _____
Prospective Commanding Officer, U.S.S. _____

SUBJECT: War Heads - Temporary storage from vessels undergoing overhaul at Navy Yard, Portsmouth.

Reference:
(a) CNO ltr. Op-23C-KAH, NY1/S78-3(300331) of 5 April, 1930.
(b) Comdt. Navy Yard, Portsmouth ltr. NT1/NY1-(2) of 11 June, 1937. ny1/s78 (12)
(c) BuOrd ltr. NY1/S78(18)(F12) of 23 June, 1937.
(d) Comdt. Portsmouth Navy Yard, ltr. NT1/NY1-(2) of 29 June, 1937. ny1/s78 (21)
(e) BuOrd ltr. NY1/S78(21)(F12) of 9 July, 1937.
(f) BuOrd ltr. NY1/S78(18)(F12) of 9 July, 1937.

1. Hereafter, submarines proceeding to Navy Yard, Portsmouth, N.H., for overhaul, involving the necessity of work in the vicinity of the war head storage, proceed via Boston for the purpose of turning in war heads and detonators for temporary storage at the Naval Ammunition Depot, Hingham, Mass.

2. In reference (e), the Bureau of Ordnance authorized Commandant, Navy Yard, Portsmouth, to receive from ships undergoing overhaul, 3" fixed ammunition, small arms ammunition and pyrotechnics for temporary storage.

J.O. RICHARDSON,
Acting.

Copy to: Commandant, 1st Naval District,
Commandant, Navy Yard, Portsmouth, N.H.,
Naval Ammunition Depot, Hingham, Mass.
Bu. Ordnance.
Commander Submarine Base, New London,
Naval Torpedo Station, Newport, R.I.,
Commander Submarine Force,
Commanding Officers and Prospective Commanding Officers of Submarines Operating under Chief of Naval Operations on East Coast.
Naval Inspector Machinery, Electric Boat Company, New London Ship and Engine Works, Groton, Conn.

REPRODUCED AT THE NATIONAL ARCHIVES

Sep 28 04 10:16a C R C I corp 603 433 3354 p.42

XMS75-1(42)

1e

NY1/S78(18)(F12)

JUL 9 - 1937

From: The Chief of the Bureau of Ordnance.
To: The Chief of Naval Operations.

Subject: War Heads - temporary storage from vessels undergoing overhaul at Navy Yard, Portsmouth.

References: (a) BuOrd Ltr. S78-1(51)(/L5-2(605)(F7) of 31 March 1930.
(b) CNO Ltr. OP-23C-KAH 4/4/30, NY1/S78-3 (300331) of 8 April 1930.
(c) Comdt. Ports. Ltr. NT1/NY1-(2) of 11 June 1937.
(d) BuOrd. Ltr. NY1 S78(18)(F12) of 23 June 1937.
(e) Comdt.Ports. Ltr. NT1/NY1-(2) of 29 June 1937.
(f) BuOrd Ltr. NY1/S78(21) of even date to Comdt. Ports.

Enclosure: (Herewith) (A) Copies of references (c), (d), (e) and (f).

1. It appears from reference (c) that the procedure recommended in reference (a) and established by reference (b) has fallen into disuse, possibly in view of the change in organization from the Control Force to the Submarine Force. Whatever the reason, the Bureau considers that high explosives should be stored at a Naval Ammunition Depot and accordingly recommends that submarines, regardless of the force to which attached, proceeding to the Navy Yard, Portsmouth, N.H. for overhaul, which makes removal of war heads desirable, be directed to proceed to Boston and to transfer to the Naval Ammunition Depot, Hingham, their war heads and detonators before prodeeding to the yard for overhaul.

- 2 -

Sep 28 04 10:16a C R C I corp 603 433 3354 p.43

NY1/S78(18)(F12)

2. In reference (f) the Bureau approved the Commandant's proposal to receive for temporary storage 3" fixed ammunition, small arms ammunition and pyrotechnics.

H. R. Stark.

IMS

C: Comdt. NYd.,Portsmouth.

NY1/578
B4 1062

REPRODUCED AT THE NATIONAL ARCHIVES

Sep 28 04 10:17a C R C I corp 603 433 3354 p.44

REPRODUCED AT THE NATIONAL N

COPY

(44)

1F

Op-23C-KAH 4/4/30
NY1/S78-3(300331)

Apr. 5 - 1930

From: The Chief of Naval Operations
To: Commander Control Force.

SUBJECT: Storage of ammunition and explosives from ships under repair at Navy Yard, Portsmouth, N. H.

Reference: (a) BuOrd.letter S78-1(51)/L5-2 (603)(F7) of 31 March, 1930.

1. Hereafter, vessels of the Control Force ordered to the Navy Yard, Portsmouth, N.H., for overhaul and repairs which will necessitate removal of their explosives and ammunitions, shall be directed to land their explosives and ammunition at the Naval Ammunition Depot, at Hingham, Mass., in accordance with the recommendation contained in reference letter, where the explosives and ammunition can be stored in compliance with safety requirements and where examination and tests may be made as prescribed in standard practice instructions during the overhaul period.

2. If the schedule of operations and space permit, the Commander Control Force is authorized at his discretion to permit stowing the ammunition and explosives of the vessels concerned on board the tender in lieu of landing the ammunition at Hingham, Mass.

W. H. Standley
Acting.

- -

Copies to: Commandant 1st Naval District
Commandant Navy Yard Division Portsmouth
Naval Ammunition Depot Hingham, Mass.
Bureau of Ordnance
Commander Submarine Base, New London.

Comdt's Office.
Copy to:
Captain of the Yard
Manager
Supply Officer
8 April 1930

Sep 28 04 10:17a C R C I corp 603 433 3354 p.45

REPRODUCED AT THE NATIONAL

(4)

IN REPLY ADDRESS
BUREAU OF YARDS AND DOCKS
AND REFER TO No.
NY1/N19-11

NAVY DEPARTMENT

BUREAU OF YARDS AND DOCKS

WASHINGTON, D. C.

AUG 28 1937

From: Chief of Bureau of Yards and Docks.
To: Commandant, Navy Yard, Portsmouth, N. H.

SUBJECT: Lightning Protection for Magazines, Buildings Nos. 31 and 32, Navy Yard, Portsmouth, N. H.

Reference: Comdt's. letter NY1/N19(31 & 32) (0-4M) of 13 August 1937.

1. It is noted from the reference that the Bureau of Ordnance has authorized the use of Yard magazine buildings Nos. 31 and 32 for the storage of 3-inch fixed ammunition, small arms ammunition and pyrotechnics from ships undergoing overhaul at the Yard. It is also noted that the primary lightning protection system is in poor condition, three of the poles having fallen down.

2. In view of the character of the material to be stored in these buildings and their close proximity to personnel buildings, it is deemed necessary that the pole system of lightning protection be restored to good condition.

3. If this restoration, estimated to cost $750.00, cannot be performed under the Yard's regular allotment from "Maintenance, Bureau of Yards and Docks, 1938", it is suggested that the item be submitted in the Yard's quarterly budget for special allotment.

G. A. Duncan
Assistant to Chief of Bureau
By direction

CC-Bureau of Ordnance.

74
Bx 1062
25-A-2
Field NY1/N19-11

Sep 28 04 10:17a C R C I corp 603 433 3354 p.46

REPRODUCED AT THE NATIONAL

X in NT1-1/S7

(46)

NY1/L11-2(7-9/5)
~~NY1/L11-2(5)~~(P7)

FEB 21 1929

To: Commandant Navy Yard,
Portsmouth, New Hampshire.

Subject: Fuzes - disposition of.

Reference: (a) Commandant's Ltr EN6/L11-3/NY1-20-X) of 15 February 1929.

1. It is requested that the 35 fuzes reported in reference (a) be shipped to the Naval Ammunition Depot, Hingham, Mass. by government conveyance.

2. The Naval Ammunition Depot, Hingham, on receipt on these fuzes, is directed to take them up in stock or survey them as may be determined from examination.

MC

William D. Leahy,
Chief of Bureau.

A.C. Pickens
Acting

Copy to:
NAD Hingham, Mass.

74
B 1062 1936-90
NY1/L11-2 (7-9)

Sep 28 04 10:18a C R C I corp 603 433 3354 p.47

(47)

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PORTSMOUTH

NAVAL BASE MANUAL

Portsmouth Naval Base

15 MAY

—1947—

CHAPTER I

GENERAL

Authority

0101. The U. S. Naval Base, Portsmouth, N. H. is a Naval Shore establishment functioning under the provisions of General Order 245 dated 27 November 1946. It is an activity of the First Naval District and as such is under the (1) military command and (2) coordination control of the Commandant of the First Naval District.

Mission

0102. The mission of the Naval Base is to furnish local logistic services direct to the Operating Forces.

Composition

0103. The Naval Base Portsmouth includes and integrates the naval shore activities in the Portsmouth area as prescribed by the Chief of Naval Operations. These activities are as follows:

(a) Portsmouth Naval Shipyard, Portsmouth, N. H.

(b) U. S. Navy Accounts Disbursing Office, Portsmouth, N. H.

(c) U. S. Naval Hospital, Portsmouth, N. H.

(d) U. S. Naval Magazine, Jamaica Island, Portsmouth, N. H.

(e) U. S. Naval Radio Station, Portsmouth, N. H.

(f) U. S. Marine Barracks, Naval Base Portsmouth, N. H.

(g) Commissary Store, Naval Base, Portsmouth, N. H.

(h) U. S. Naval Disciplinary Barracks, Portsmouth, N. H.

Officer IN Command

0104. The Naval Base is commanded by a line officer eligible for the exercise of command at sea. The title of the Commander of the Naval Base is Commander, U. S. Naval Base Portsmouth, N. H.

Succession In Command

0105. Succession to Command at Naval Base, Portsmouth, N. H. will be as follows:

(a) In the event that the Commander is absent from the limits of his command, is on leave, or is disabled, the command of the Naval Base shall devolve upon the officer designated by the Commander with the approval of the District Commandant.

(b) Officers designated for succession to command shall be line officers eligible for the exercise of command at sea.

(c) The Commander will publish in a Base Order a list of officers in the order of succession to command after approval by the District Commandant.

(d) The foregoing departure from Art. 1487 (1), U. S. Navy Regulations, 1920, is prescribed by CNO ltr Op24/mac serial 1849 P24 dated 22 November 1946.

(e) For the purposes of this article, the commander is considered as being within the limits of his command while in the Portsmouth area.

Sep 28 04 10:19a C R C I corp 603 433 3354 p.49

Duty Officer

0106. Naval Base (Watch) Duty Officer: An officer of the Watch will be on duty in the Duty Office, Administration Building, Bldg. No. 13, Tel. 106, at all times, and will carry out the duties of Officer of the Watch for both the Commander, Naval Base and the Commander, U. S. Naval Shipyard. The Officer of the Watch is the representative of the Commander and shall carry out the policies and directives of the Naval Base Commander in a manner simular to the Officer of the Deck of a ship. Specific instructions to the Officer of the Watch, and the watch bill will be prepared by the Administrative Officer of the U. S. Naval Shipyard, subject to approval by the Chief of Staff.

The Shipyard Duty Officer will advise and assist the Officer of the Watch in matters pertaining to the Naval Base and particularly those matters which involve coordination between activities of the Shipyard and other components.

Sep 28 04 10:19a C R C I corp 603 433 3354 p.50

military and veterans inclusive. In the event of a serious epidemic or local catastrophe the bed capacity can be increased to 420 immediately.

The Veterans' Administration has been allocated 25 beds. There are four ambulances with a total stretcher capacity of 13.

The Hospital mans and maintains its own transportation department and operates its own laundry.

0406 U. S. Naval Magazine, Jamaica Island, Portsmouth, N. H.

(a) Management and Technical Control - Bureau of Ordnance

Naval Magazine

(b) Tasks:

(1) Provide temporary storage for the ammunition allowance of vessels under repair at the Shipyard.

(2) Provide storage for torpedo war heads.

(3) Provide storage for pyrotechnical material pending its issuance to naval vessels for tests or other purposes.

(c) Facilities

Storage facilities consist of 40 igloos and five storage houses, which are fully utilized when a submarine tender visits the Shipyard. Other facilities such as trucks, barges, handling gear, etc., are borrowed from other Base components as necessary.

(d) Location: On eastern extremity of Naval Reservation, and connected with remainder of Base with causeway.

0407 Naval Radio Station, Portsmouth, N. H.

(a) Management Control - Commandant, First Naval District

(b) Technical Control - Chief of Naval Operations

Naval Radio Station

(c) Tasks:

(1) Provide communication facilities for Naval Base activities; other Naval activities in the vicinity as designated; ships present and operating in the vicinity.

(d) Facilities

The equipment assigned to the station consists of the following:

(1) Transmiters

		Use	
TAB-5	2KW	106 Kcs Emergency Freq.	(A1)
	100-555 kcs	450 Kcs ship to shore.	(A1)
	A1 & A2 Emission	450 Kcs Submarine freq.	(A1)
TDF	125 watts	2716 kcs ship to shore	(A3)
	2-9.4 mcs	2150 kcs district freq.	(A3)

Sep 28 04 10:19a C R C I corp 603 433 3354 p.51

Master Plan Pattern Development Plan
Final Naval District, U.S. Naval Base, Portsmouth, VA
Feb. 1957

(5)

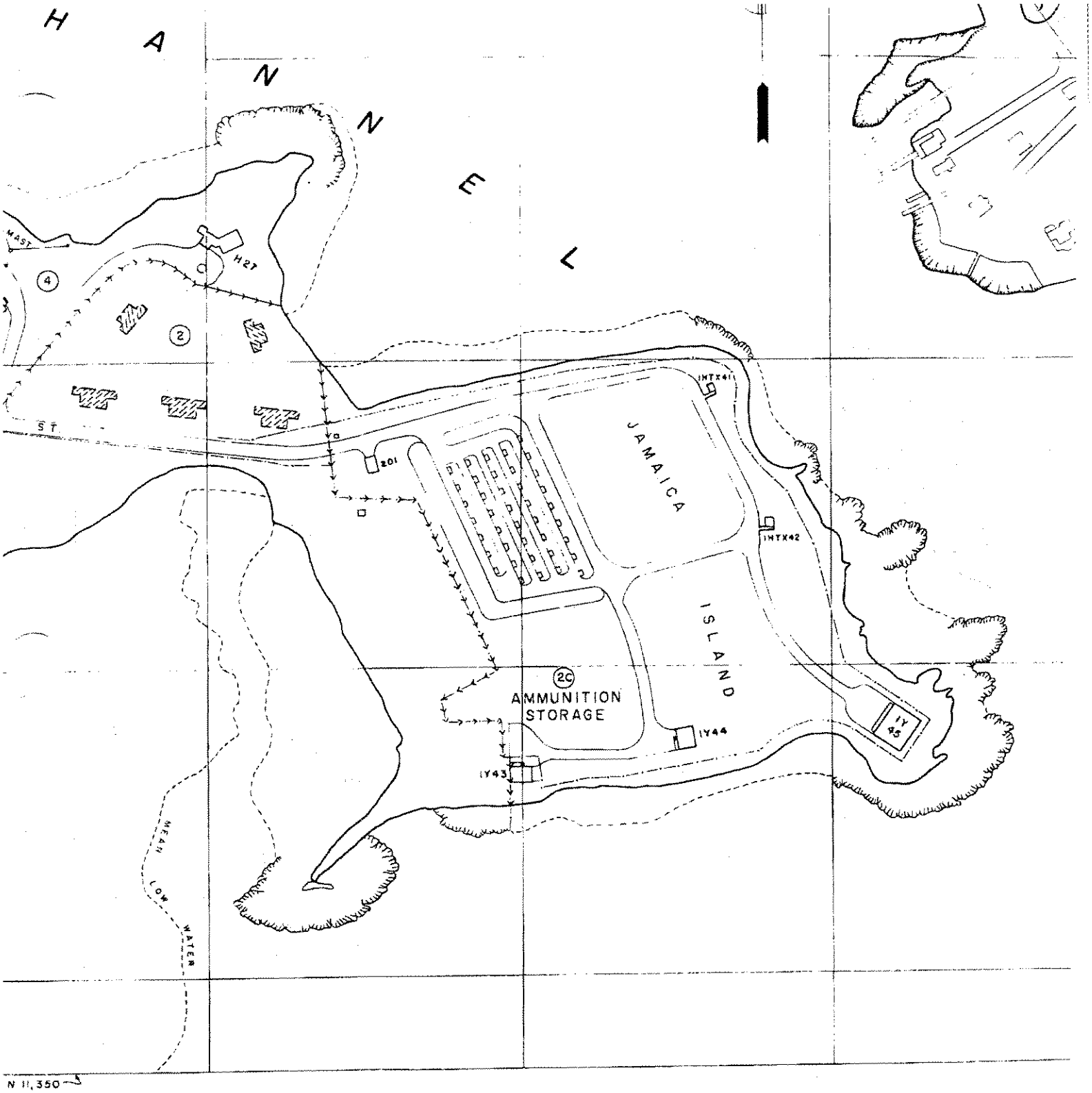
Sheet Metal Shop & Dry Kiln	43	2	Brick	22,029	
Boat Shop	59	2A	Brick	10,521	
Varnish Shop	60	2	Brick	35,134	
Plumbing Shop (Public Works)	64	1	Brick	4,135	
Sheet Metal Shop	65	2A	Brick	5,700	
Sheet Metal Shop	74	2	Brick	19,224	
Forge Shop	75	2	Brick	34,432	
Electrical Manufacturing Shop	76	2	Brick	37,960	
Machine Shop (Inside)	79	3M	Brick	64,796	
Central Tool Shop	80	1M	Brick	136,335	
Shipfitters Shop	89	2M	Brick	23,616	
Pattern, Rubber & Torpedo Room Shop	92	2	Brick	154,433	
Foundry	95	3	Brick	67,311	
Metal X-Ray Laboratory	96	2	Brick	63,663	
Saw Mill	128	1	Corr.Metal	1,170	
Field Shops	129	1	Wood	9,216	
Transportation Shop (Public Works)	150	2	Brick	13,196	
Pipe & Copper Shop	154	2	Brick	30,521	
Plate Yard Office	155	1M	Brick	36,625	
Transportation Shop (Public Works)	157	1	Corr.Metal	642	
Battery Charging & Garage (Supply)	158	1M	Corr.Metal	17,700	
Field Shop	160	1M	Metal Clad	6,080	
Outside Machine Shop & Field Shops	165	1	Brick	705	
Submarine Assembly Shop	174	2	Corr.Metal	97,950	
Clean Assembly Shop	178	1M	Corr.Metal	66,393	
Field Shops	184	1	Brick	9,832	
Field Shops	196	1	Wood	4,911	
Sound Survey Office	198	1	Quonset	4,109	
Concrete Batch Plant	202	1	Wood	464	
Paint Locker	204	2	Wood	1,795	
Decontamination Building	208	1	Wood	618	
Storage Battery Building	233	1	Corr.Metal	4,152	
Electrical Test Laboratory, Electronics & Electrical Shop	238	2M	Brick	77,043	
Sandblast Building	240	4	Brick	111,682	
(B) Weight Handling, Shipways & Bldg. 178 1ND-P-910	244	1	Corr.Metal	2,708	
(B) Sprinkler System Building 80 1ND-P-756	178				
(B) Addition to Machine Shop 1ND-P-707	80				
(B) Modernisation of Foundry P-2 1ND-P-45	80			310,000	300,0
(B) Garage P-15 1ND-P-709	96				
		1	Brick	12,000	10,0

MAGAZINES

(A) 40 HE Magazines	IKT-1 to IKT-40	1	Conc.	2,360	
Fuse & Detonator Magazine	IHTX-41	1	Conc.	207	
Fuse & Detonator Magazine	IHTX-42	1	Conc.	207	
Pyrotechnics Magazine	IX43	1	Conc.	927	
Small Arms Ammunition Magazine	IX44	1	Conc.	927	
Fixed Ammunition Magazine	1245	1	Conc.	3,111	

MEDICAL FACILITIES

(A) Industrial Hygiene					
Ambulance Station	14	3A	Granite	4,666	
Dispensary Annex	25	1	Brick	480	2 Ambu
Dispensary	27	2M	Brick	3,756	



SYMBOL	DESCRIPTION	DATE
	REVISIONS	

Master Shore Station Development Plan
U.S. Naval Base
Portsmouth, NH Feb 1957

Sep 28 04 10:21a C R C I corp 603 433 3354 p.53

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HISTORY OF WORLD WAR II

NAVY YARD

PORTSMOUTH, N. H.

Sep 28 04 10:22a C R C I corp 603 433 3354 p.54

Building 160, 43 feet by 110 feet, wooden framing on structural steel with asphalt impregnated celotex siding. These two buildings provided additional storage space for increased supply of materials. Work was started in January, 1941, and completed in May, 1941.

Construction of Naval Net Depot, Building 158, 82 feet by 198 feet, structural steel frame with corrugated galvanized metal siding and roofing, complete with paving, grading and railroad tracks around entire area of building. This building provides space required for storage of floats and nets used for harbor obstructions. Work was started in January, 1941, and completed in April, 1941.

Construction of 40 concrete igloos, two one-story concrete magazines, 34 feet by 27 feet, with earth embankments, roads and approaches, protective fence and lighting installed around the entire area. The above facilities were constructed on Jamaica Island, an island adjacent to the Navy Yard and which was purchased for storage of ordnance facilities. An earth causeway with granite sidewalls was built from the Navy Yard to the island. Work was started in October, 1941, and had reached a stage of usable completion by May, 1942.

Smaller projects under this contract included new foundation and moving of Building 115, concrete building for new sub-station one story extension to garage (Building 154), toilet facilities at Berth 6, and installation of wood cribs in outer harbor for use as a harbor protection measure.

Item 5.

Contract NOy-4474 (lump sum) (J. Slotnik Company) provided for the construction of 600 housing units, consisting of 225 double houses and 150 single uni s of frame construction with concrete block foundations, shingle sidings and asphalt shingles. Each unit included a living room, two bedrooms, kitchen and bath, with hot air heat furnished by oil-fired furnaces, domestic hot water and electric ranges. These houses are located on a plot of land of approximately 100 acres in the Town of Kittery, Maine, approximately one mile from the Navy Yard. Work was started in November, 1940, and completed in November, 1941, at a cost of $1,862,833.32.

In conjunction with above work, Contracts NOy-4431, 4734, 4918, and 4964 for clearing the site for housing units, installation of water and sewer systems, and paving of walks and roads at a cost of $324,123.37.

Item 6.

Contract NOy-4761 (CPFF) (Aberthaw Company) at a total cost of $8,539,841.63, provided for the construction of a new dry dock, quay walls, field office, storehouses, hospital buildings,

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In 1798, the Navy was separated from the War Department and a Department of the Navy was created. At that time, the new Secretary of the Navy instituted proceedings to obtain land for the use of the Navy Yard. To this end, in June 1800, Dennett's Island was purchased for the Government by Jacob Sheafe, who was Navy Agent.[1]

The term "Navy Yard" was synonomous with the activity from purchase of the island in 1800 to the issuance of General Order No. 223 dated 14 September 1945 which stated:

> "The Navy Yards located at Portsmouth, N. H., ... shall henceforth be known as U. S. Naval Bases."
>
> "All of the component activities of the .....Naval Bases, including each shipyard as one component activity, shall be under the military command and coordination control of an officer designated Commandant of the Naval Base ....."

Effective 30 November 1945, the Secretary of the Navy set up the organization of the U. S. Naval Base, Portsmouth, New Hampshire, with the following components:

U. S. Naval Shipyard, Portsmouth, N. H.

Marine Barracks (Shipyard), Portsmouth, N. H.

U. S. Naval Hospital, Portsmouth, N. H.

U. S. Naval Magazine, Jamaica Island, Portsmouth, N. H.

U. S. Naval Net Depot, Portsmouth, N. H.

U. S. Naval Radio Station, Portsmouth, N. H.

U. S. Naval Registered Publications Issuing Office, Portsmouth, N. H.

The Secretary of the Navy at this time directed the Bureau of Naval Personnel to order a line officer of Flag rank to duty as Commandant of the U. S. Naval Base, Portsmouth, N. H.

1. History of the Portsmouth Naval Shipyard 1800-1958.

and it was felt that it could be readily absorbed by the Registered Publications Issuing Office, Boston. By order of the Secretary of the Navy, the Registered Publications Issuing Office, Naval Base, Portsmouth, N. H., was disestablished on 31 March 1947.

By July 1947, there was such limited use of the Naval Magazine, Jamaica Islant, that it was recommended that the activity be disestablished. However, it was also recommended that the physical facilities be integrated into the Portsmouth Naval Shipyard. Thus, it would continue to be used for ammunition storage for vessels under overhaul. Due to these circumstances, it was disestablished by order of the Secretary of the Navy on 17 September 1947; and cognizance was transferred from the Bureau of Ordnance to the Portsmouth Naval Shipyard.

On 7 October 1947, the Secretary of the Navy ordered the U. S. Naval Radio Station, Naval Base, Portsmouth, N.H., disestablished and included under the U. S. Naval Base. This was further changed when the Chief of Naval Operations by letter of 15 September 1950, transferred Communication billets (1 LTJG and 4 RM enlisted) from the Naval Base to the Shipyard allowance. Effective 1 January 1951, the communication facilities for the Naval Base and components were transferred to the Portsmouth Naval Shipyard. However, the physical location of the communication facilities remained in Building 13.

At this time, the Staff of Commander, U. S. Naval Base, included a Controlled Mines Officer, and a recommendation was made to the Chief of Naval Operations to establish a Harbor Defense Facility as a component of the Naval Base; The allowance for this activity to consist of one Officer-in-Charge and twelve enlisted personnel. The Harbor Defense Unit was established under an Officer-in-Charge effective 15 March 1951 and by CINCLANTFLT NOTICE 05440.3A of 2 January 1952 was assigned as a component of the U. S. Naval Base.

Sep 28 04 10:24a C R C I corp 603 433 3354 p.57

General Order No. 19 of 21 May 1959 states: The mission of the shore activities of the Department of the Navy is to support the operating forces. The total effort in support of this mission requires direction from command and business administration authorities. This direction will be exercised through the channels of military command and management control.

There is now no currently approved allowance for military or civilian personnel for the U. S. Naval Base, Portsmouth, N. H. The military on board are 2 officers: Captain James B. Grady, USN and Commander Alfred J. Thomas, [illegible] These two officers are included on COMONE's allowance. The four enlisted are 1 JO3, 1 SO2, steward at Quarters "A" who are on COMONE's allowance; 1 Watch Captain and a driver for the Commander, Naval Base. These are included on the Portsmouth Naval Shipyard Manpower Authorization. The three civilians at Portsmouth are also included under COMONE's allowance.

In accordance with CNO letter of 29 June 1962, the Chief of Naval Operations approved in principle the disestablishment of the U. S. Naval Base, Portsmouth, and by letter of 22 August 1962 set the date as 31 December 1962. SECNAV Notice of 2 October 1962 formally announced the disestablishment of the U. S. Naval Base, Portsmouth, N. H. effective 31 December 1962.

18 October 1962

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DRAFT

JAMAICA ISLAND
NAVAL AMMUNITION DEPOT
PORTSMOUTH NAVAL SHIPYARD

BRIEF CHRONOLOGICAL HISTORY
COMPILED BY: JAMES DOLPH
CULTURAL RESOURCE SPECIALIST
4 MAY 1994

DRAFT

21 Feb 41 -- Congress authorized acquisition of land to construct an ordinance facility.
(Source #1: Department of Navy letter, 21 Feb 1942, Real Estate Files, Naval Engineering Facility Command, Lancaster, Pennsylvania)

Oct 41 -- Construction of 40 concrete igloos began.
(Source #2: Official History of the Portsmouth Naval Shipyard during World War II, unpublished typescript, National Archives, Waltham, Massachusetts)

May 42 -- Igloos are at a stage of usable completion.
(Source #2)

3 Aug 42 -- United States Navy acquires Jamaica Island.
(Source #1: Deed, Real Estate files, Naval Engineering Facility Command, Lancaster, Pennsylvania)

30 Nov 45 -- U.S. Naval Magazine, Jamaica Island, is established as a component of the newly established U.S. Naval Base, Portsmouth, N.H.
(Source #3: History of the U.S. Naval Base, Portsmouth, N.H., unpublished typescript, PNS Museum)

31 Dec 62 -- U.S. Naval Base, Portsmouth, N.H., is disestablished, reorganizing the Portsmouth Naval Shipyard.
(Source #3)

1972 -- Miscellaneous correspondence pertaining to other issues indicates that ammunition was only stored in the ammunition bunkers while vessels were at the shipyard undergoing overhaul or repair. Upon completion, the ammunition was re-issued to the vessel.
(Source #4: Miscellaneous correspondence file, PNS Museum)

5 Feb 74 -- In response to an official inquiry by Naval Sea Systems Command, the Shipyard determines that no ammunition has ever been buried aboard the facility. In addition, there are no future plans to do so.
(Source #5: Letter from Commander, Portsmouth Naval Shipyard to Commander, Naval Sea Systems Command, 440:JK.mep.11011, 5 Feb 74)

1978 -- It is presumed, by preliminary research, that the 40 concrete igloos were no longer being used.

1987 -- Concrete igloos were demolished.
(Source #6: Public Works Contract #87-C-2199,
Demolition of Various Buildings)

Chronological History of the Ammunition and Dynamite Magazines Portsmouth Naval Shipyard

Researched and Prepared By:
James E. Dolph
Environmental Research Specialist
&
LCDR James Melfi, USNR

Portsmouth Naval Shipyard
Portsmouth, New Hampshire
03804-5000

January 1999

Sep 28 04 10:25a C R C I corp 603 433 3354 p.62

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US Naval Magazine, Jamaica Island

High Explosive Magazines, (Igloos), IKT-1 to IKT-40

Fuse & Detonator Magazine, IHTX-41

Fuse & Detonator Magazine, IHTX-41

Pyrotechnics Magazine, IY-43

Small Arms Ammunition Magazine, IY-44

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Armory, Building M-11

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US Naval Prison

Armory, Building 191

CHRONOLOGICAL HISTORY OF STRUCTURE 250 (DYNAMITE MAGAZINE)

Date	Description	Reference
c1905	Dynamite Magazine was constructed on Seavey Island	Drawing No: YM-99-5, *"Plan of US Navy Yard, Portsmouth, NH and Part of Seaveys Island."*, September 1899 Drawing No: YM-08-29, *"Map of navy Yard, Portsmouth, NH., showing Improvements."*, July 1, 1908
1947	Structure listed as a Dynamite magazine	Drawing No: YM-47-127, *"Map of Naval Base, Portsmouth, NH., Showing Condition."*, *June 30, 1947*
1962	Structure is listed as a Magazine under the control of the US Naval Disciplinary Command	*"Portsmouth Naval shipyard, Portsmouth, NH., General Development Map, Existing Conditions."*, *July 1, 1962*
1971	Structure use is listed as Storage under the control of the US Naval Disciplinary Command	Drawing No: YM-67-145 *"Map of US Naval Activity, Seavey Island, Kittery, Maine."*, *July 1, 1971*
1976	Structure is listed as vacant	NAVFAC Drawing No: 692162, *"US Naval Activity, Seavey Island, Kittery, Maine, Index of Structures, Existing Conditions."*, November 1976
1981	Structure is listed as vacant	Drawing No: YM-71-145, *" Portsmouth Naval Shipyard, Map showing Conditions."*, December 1981
1997	Structure is listed as abandoned	*"US Naval Activity, Seavey Island, Kittery, Maine."* September 1997,

CHRONOLOGICAL HISTORY OF BUILDING 31 (AMMUNITION MAGAZINE)

Date	Description	Reference
c1860	Ammunition Magazine constructed	N.Y.D. Form 115
1945	Commissary Store	Map of "*U.S. navy yard Portsmouth, NH.*", *June 30, 1945*
1962	Navy Exchange	Portsmouth Naval Shipyard, Portsmouth NH. "*Index of structures*", *1 July 1962*
1979	Navy Exchange	U.S. Naval Activities Seavey island, ME., "*Existing Conditions*", *NOV 1979*
1999	Shipyard Museum and Visitor Center	Interview with James Dolph, Code 100H, 15 Jan 1999

CHRONOLOGICAL HISTORY OF BUILDING 32 (AMMUNITION MAGAZINE)

Date	Description	Reference
c1860	Ammunition Magazine constructed	N.Y.D. Form 115
1945	Store House	Map of "*U.S. Navy Yard Portsmouth, NH.*", June 30, 1945
1962	Gammagraph Building	Portsmouth Naval Shipyard, Portsmouth, NH. "*Index of Structures*", 1 July 1962
1976	Radiographic Building	U.S. Naval Activities Seavey Island, Kittery, ME. "*Index of Structures*"
1979	Radiographic Building	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1996	Storage	Interview with James Dolph, Code 100H, 15 Jan 1999
1999	Storage	Interview with James Dolph, Code 100H, 15 Jan 1999

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CHRONOLOGICAL HISTORY OF BUILDING 33 (AMMUNITION MAGAZINE)

Date	Description	Reference
c1856	Shell house constructed	N.Y.D. form 115
1947	Store House	Map of ,"*U.S. Navy Yard Portsmouth, NH.*", June 30, 1947
1962	Production Storage	Portsmouth Naval Shipyard, Portsmouth, NH. *"Index of Structures"*, 1 July 1962
1971	Inactive	Map of, "*US Naval Activities Seavey Island, Kittery, ME.*", July 1971
1976	Storage	Map of, "*US Naval Activities Seavey Island, Kittery, ME.*", July 1971
1979	Storage	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1998	Storage	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*, October 1998

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CHRONOLOGICAL HISTORY OF BUILDING 34 (AMMUNITION MAGAZINE)

Date	Description	Reference
c1858	Shell house constructed	N.Y.D. form 115
c1945	Cold Storage	Map of "*U.S. Navy Yard Portsmouth, NH.*", June 30, 1945
1976	Cold Storage	U.S. Naval Activities Seavey Island, Kittery, ME., "*Index of Structures*", NOV 1976 NAVFAC DWG 692162
1979	Cold Storage	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1998	Cold Storage	U.S. Naval Activities Seavey Island; Kittery ME, "*Existing Conditions*", October 1998

CHRONOLOGICAL HISTORY
HIGH EXPLOSIVE MAGAZINES, (IGLOOS), IKT-1 TO IKT-40
(US NAVAL MAGAZINE, JAMAICA ISLAND)

Date	Description	Reference
1942	Storage, Ammo, Igloo Constructed	NAVCOMPT FORM 267
1947	Transferred from US Naval Magazine to Portsmouth Naval Shipyard	ComOne ltr ND/N1-13 (445) NMJ:MW of 22 October 1947
1976	40 High Explosive Magazines	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162
1979	35 High Explosive Magazines	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
c1996	Demolished to Construct Building 357	Interview with James Dolph, Code 100H, 15 Jan 1999

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CHRONOLOGICAL HISTORY
FUSE & DETONATOR MAGAZINE, IHTX -41
(US NAVAL MAGAZINE, JAMAICA ISLAND)

Date	Description	Reference
1942	Fuse & Detonator Magazine underground	NAVCOMPT FORM 267
1947	Transferred from US Naval Magazine to Portsmouth Naval Shipyard	ComOne ltr ND/N1-13 (445) NMJ:MW of 22 October 1947
1962	Fuse & Detonator Magazine	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1967	Vacant	Map of U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, Jan 1, 1967
1976	Not listed	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162

CHRONOLOGICAL HISTORY
FUSE & DETONATOR MAGAZINE, IHTX -42
(US NAVAL MAGAZINE, JAMAICA ISLAND)

Date	Description	Reference
		NAVCOMPT FORM 267
1947	Transferred from US Naval Magazine to Portsmouth Naval Shipyard	ComOne ltr ND/N1-13 (445) NMJ:MW of 22 October 1947
1962	Fuse & Detonator Magazine	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1967	Vacant	Map of U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, Jan 1, 1967
1976	Not Listed	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162

CHRONOLOGICAL HISTORY
PYROTECHNICS MAGAZINE, IY-43
(US NAVAL MAGAZINE, JAMAICA ISLAND)

Date	Description	Reference
		NAVCOMPT FORM 267
1947	Transferred from US Naval Magazine to Portsmouth Naval Shipyard	ComOne ltr ND/N1-13 (445) NMJ:MW of 22 October 1947
1953	RADIC Repair	Master Shore Station Development Plan, *"Index of Structures"*, 31 Dec 1953
1958	Pyrotechnics Magazine	Master Shore Station Development Plan, *"Index of Structures"*, 31 Dec 1958
1962	Radio Receiving Building	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1976	Radio Receiving Building	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162
1979	Radio Receiving Building	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1998	Not listed	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*, October 1998

CHRONOLOGICAL HISTORY
SMALL ARMS AMMUNITION MAGAZINE, IY-44
(US NAVAL MAGAZINE, JAMAICA ISLAND)

Date	Description	Reference
		NAVCOMPT FORM 267
1947	Transferred from US Naval Magazine to Portsmouth Naval Shipyard	ComOne ltr ND/N1-13 (445) NMJ:MW of 22 October 1947
1962	Small Ammunition Magazine	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1976	Passive Defense Storage	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162
1979	Recreation Grounds Building	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1998	Small Arms Magazine	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*, October 1998

CHRONOLOGICAL HISTORY
FIXED AMMUNITION MAGAZINE, IZ-45
(US NAVAL MAGAZINE, JAMAICA ISLAND)

Date	Description	Reference
		NAVCOMPT FORM 267
1947	Transferred from US Naval Magazine to Portsmouth Naval Shipyard	ComOne ltr ND/N1-13 (445) NMJ:MW of 22 October 1947
1962	Storage (prod)	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1967	Storage Disaster control	Portsmouth naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*,
1976	Passive Defense Storage	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162
1979	Recreation Grounds Building	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1998	Not Listed	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*, October 1998
1999	Demolished 1998	Interview With James Dolph, Code 100H, 15 Jan 1999

(7)

CHRONOLOGICAL HISTORY
ARMORY, BUILDING M-4
US MARINE BARRACKS

Date	Description	Reference
1904	Constructed as Bake Shop	N.Y.D Form 115
1923	Store House	Map of the U.S. Navy Yard Portsmouth NH., "*Showing Improvements*" July 1, 1923 YM-19-58A
1923	Police Shed and Storage	Map of the U.S. Navy Yard Portsmouth NH., "*Showing Improvements*" June 1945 YM-45-124
1958	Armory and Storage	Master Shore Station Development Plan, "*Index of Structures*", 31 Dec 1958 Y&D DWG 3 572817
1962	Armory and Gymnasium	Portsmouth Naval Shipyard Portsmouth. NH., "*General Development Map Existing Conditions 1 July 1962 Index of Structures*"
1976	Armory and Gymnasium	U.S. Naval Activities Seavey Island, Kittery, ME., "*Index of Structures*", NOV 1976 NAVFAC DWG 692162
1979	Armory and Gymnasium	U.S. Naval Activities Seavey island, ME., "*Existing Conditions*", *NOV 1979*
1998	Armory and Gymnasium	U.S. Naval Activities Seavey Island; Kittery ME, "*Existing Conditions*", October 1998

Sep 28 04 10:28a C R C I corp 603 433 3354 p.76

CHRONOLOGICAL HISTORY
ARMORY, BUILDING M-10
US MARINE BARRACKS

Date	Description	Reference
1913	Constructed as Coal Shed	N.Y.D. Form 115
1936	Coal Shed	Map of U.S. Navy Yard Portsmouth, NH. *"Showing Conditions on"* June 30, 1936
1942	Change to Cold Storage	NAVDOCKS Form 115
1945	Cold Storage	Map of U.S. Navy Yard Portsmouth, NH. *"Showing Conditions on"* June 30, 1945
1958	Cold Storage	Master Shore Station Development Plan, *"Index of Structures"*, 31 Dec 1958 Y&D DWG 3 572817
1962	Cold Storage	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1976	Cold Storage	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162
1979	Cold Storage	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1998	Cold Storage	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*, October 1998

(4)

CHRONOLOGICAL HISTORY
ARMORY, BUILDING M-11
US MARINE BARRACKS

Date	Description	Reference
1911	Constructed as Coal Shed	N.Y.D. FORM 115
1936	Coal Shed	Map of U.S. Navy Yard Portsmouth, NH. *"Showing Conditions on"* June 30, 1936
1945	Storage	Map of U.S. Navy Yard Portsmouth, NH. *"Showing Conditions on"* June 30, 1945
1958	Storage	Master Shore Station Development Plan, *"Index of Structures"*, 31 Dec 1958 Y&D DWG 3 572817
1962	Storage	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1976	Storage	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162
1979	Storage	U.S. Naval Activities Seavey island, ME., *"Existing Conditions", NOV 1979*
1998	Storage	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*, October 1998

(18)

CHRONOLOGICAL HISTORY
ARMORY, BUILDING M-12
US MARINE BARRACKS

Date	Description	Reference
1890	Constructed as Shooting Gallery	N.Y.D. Form 115
1919	Removed to make room for Laundry	N.Y.D. Form 115

(19)

CHRONOLOGICAL HISTORY
ARMORY, BUILDING 191
US NAVAL PRISON

Date	Description	Reference
1945	Constructed as Supply & Disbursing Offices, Storage, Classrooms	N.Y.D Form 115
1958	Branch Exchange, Barracks, EM Club, Classrooms, Armory, Admin	Master Shore Station Development Plan, *"Index of Structures"*, 31 Dec 1958 Y&D DWG 3 572817
1962	Barracks	Portsmouth Naval Shipyard Portsmouth. NH., *"General Development Map Existing Conditions 1 July 1962 Index of Structures"*
1976	Bachelors Enlisted Quarters	U.S. Naval Activities Seavey Island, Kittery, ME., *"Index of Structures"*, NOV 1976 NAVFAC DWG 692162
1979	Unaccompanied Enlisted Qtrs	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*
1998	Unaccompanied Enlisted Qtrs	U.S. Naval Activities Seavey Island; Kittery ME, *"Existing Conditions"*, October 1998

Sep 28 04 10:29a C R C I corp 603 433 3354 p.80

#15

(80)

H. O. Pub. No. 908

FLEET GUIDE

BOSTON

First Edition
1952

Published by the U. S. Navy Hydrographic Office under
the authority of the Secretary of the Navy

United States
Government Printing Office
Washington : 1952

(Chg 4)

Sep 28 04 10:29a C R C I corp 603 433 3354 p.81

be accomplished. Remove all ammunition from the magazine which is adjacent to any compartment in which welding or burning is to be done. Adjacent compartments include those above, below, at corners, and on each side of the magazine in question. Remove all ammunition from magazines which are not equipped with a sprinkler system or which cannot be flooded in the event of a fire or other emergency. Ships being drydocked will generally be required to remove below deck ammunition. Specific exception to this may be made by the Shipyard Commander in those cases where shipyard work is localized and the drydocking period is short.

Since it may be desirable during a restricted availability to accomplish additional work items which involve welding or burning and which can be easily accomplished during the time allocated for the primary or controlling job, it is advisable whenever possible to remove all types of ammunition from the ship, except small arms ammunition required for security purposes.

The Commander, Boston Naval Shipyard (Planning Officer) prior to the arrival of a ship will notify the ship, by message, the amount and type of ammunition to be off-loaded.

Prior to arrival, naval ships should advise the Commanding Officer, U. S. Naval Ammunition Depot, Hingham, with copies to Commander, U. S. Naval Base, Boston, and Commander, Boston Naval Shipyard, as to quantity and type of ammunition to be off-loaded and estimated time of arrival. The Commanding Officer, U. S. Naval Ammunition Depot, Hingham, will make arrangements to furnish an ammunition lighter and transfer the ammunition to magazines for temporary storage.

Refer to *current OPNAV INSTRUCTION* for duties and responsibilities of commanding officers of ships in connection with the transportation of fleet-returned ammunition in lighters.

5-8 DEGAUSSING FACILITIES—Boston Area.—Currently no active degaussing or deperming facilities are found in the Boston Area. Arrangements to run the degaussing range may be made directly with the Officer in Charge, U. S. Naval Degaussing Station, Newport, R. I., by the commanding officers of ships desiring or requiring a complete check of the ship's degaussing condition.

The Chief, Bureau of Ordnance prescribes a degaussing check following any repair or modification of the ship's degaussing installation, a major alteration to a ship's structure, following a normal overhaul period, and at periodic intervals as specified in Degaussing Instructions.

On arrival of ships of the active fleet for regular overhauls, the Boston Naval Shipyard will automatically conduct a complete inspection of the degaussing systems on ships so fitted to determine the condition of the system and any necessary repairs. No work request is required for this inspection, but work found necessary as a result of inspection should be included in the supplementary work list. Repairs, including calibration of meters, should be completed before ranging or deperming.

5-9 GENERAL ORDNANCE INFORMATION—Dumping of Explosives, Ammunition, and Chemicals (*C.&G.S. Chart 70*).—The disposition of obsolete and unserviceable ammunition is to be performed in accordance with the instructions of the Chief, Bureau of Ordnance. In all instances, where disposition BY DUMPING is specified, the approved dumping area assigned to the First Naval District is an area 10 miles square with center located *41°33′ N., 65°33′ W.* Commanding officers of ships shall insure that items to be dumped will readily sink when dumped overboard.

Sep 28 04 10:30a C R C I corp 603 433 3354 p.82

(8)

U. S. NAVY YARD
PORTSMOUTH, N.H.

July 7, 1942.

ORDER NO. 23-42

SUBJECT: Ordnance Storage and Other Facilities, Navy Yard, Portsmouth, N.H. - Organization of.

Reference: (a) Bu.Ord. letter NY1/A1-1(Ad3b) of July 2, 1942.

1. In accordance with reference (a), there is hereby established under the Officer-in-Charge an organization comprised of

(a) U. S. Naval Magazine, Jamaica Island,
(b) U. S. Naval Net Depot, Seavey Island.

2. Old buildings, Nos. 31,32,33, and 34, no longer to be used as magazines, will be continued in use as storehouses assigned to the Supply Department. The ammunition now stored in these buildings will be transferred to Jamaica Island magazines as soon as practicable.

3. The Torpedo Storage and Workshop, Building No. 176, will, when completed, be assigned to the Industrial Department as a shop in the Production Division under a Torpedo Repair Officer who will be specially trained in this work.

T. WITHERS
Rear Admiral, U. S. N.,
Commandant.

DISTRIBUTION
A - F - D

Sep 28 04 10:30a C R C I corp 603 433 3354 p.83

(83)

SOURCE: NATIONAL ARCHIVES
NEW ENGLAND REGION
380 TRAPELO ROAD
WALTHAM, MA 02154

RECORD GROUP #181
PORTSMOUTH NAVAL SHIPYARD

Portsmouth Naval Shipyard
General Correspondence (Central Files) 1925-50
Includes Industrial Dept. 1925-50
AND SHIPYARD COMMANDER 1945-50

IN REPLY ADDRESS
THE BUREAU OF YARDS AND DOCKS
AND REFER TO No.

A1-1

NAVY DEPARTMENT

BUREAU OF YARDS AND DOCKS

WASHINGTON, D. C.

SEP 13 1941

From: Chief of Bureau of Yards and Docks.
To: Commandant, Navy Yard, Portsmouth, N. H.

SUBJECT: Ordnance Storage Facilities, including acquisition of Jamaica Island.

Reference: (a) Comdt's. ltr. A1-1(25946-4) of 7 Aug. 1941.
(b) Bu.Y&D. dispatch 131733, Aug. 1941. 26827

Inclosure: (herewith) (A) Two copies of standard specification for "Precast Concrete High Explosive Magazines".
" (B) Copy of Bu.Y&D. Circular Letter, N6-62 of 2 Aug. 1941.
(sep.cover) (C) Blueprint, Bu.Y&D. Sketch O.E.D.-139.
" (D) One vandyke each, Bu.Y&D. drawings Nos. 119721, 119723, 119724, 163582 and 163583.

1. By reference (a) the Commandant recommended that construction of the subject project be accomplished by yard labor and as an addition to Contract NOy-4236. This recommendation was approved by reference (b).

2. The requirements for ammunition storage facilities, as approved by the Bureau of Ordnance together with the locations for the several types of magazines, are indicated on Inclosure (C). Minor modifications of the indicated locations of the magazines are permissible, provided the indicated safety distances are not reduced. In this connection, attention is invited to Inclosure (B).

3. The detail requirements for the several types of buildings are as follows:

40 Precast High Explosive Magazines:

These magazines shall be in accordance with Bu.Y&D. drawings Nos. 163582 and 163583 and the standard specifications, Inclosure (A).

The plan of a 9-magazine unit shown on drawing No. 163582 should be disregarded as this unit plan is intended for use in level areas where

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ample land is available. The general arrangement shown on Inclosure (C) should be followed, with the rows of magazines following the contours of the topography and resulting in four different levels.

2 Fuse and Detonator Magazines, 10' x 14' (inside dimensions).

These shall be constructed in accordance with the detonator magazines shown on Bu.Y&D. drawing No. 119721.

1 Fixed Ammunition Magazine, 50' x 60'.

This magazine shall be constructed in accordance with the plans, elevations and details of the smokeless powder bag charges building shown on Bu.Y&D. drawings Nos. 119723 and 119724 except that two 20' bays shall be omitted, thus providing a building approximately 60' in length.

1 Small Arms Ammunition Magazine, 27' x 34', and 1 Pyrotechnics.

These magazines shall be in accordance with similar magazines shown on Bu.Y&D. drawing No. 119721, except that the length of each shall be reduced by 16'-8", thus providing buildings approximately 34' long. The details shown on Y&D. drawing No. 119724 also apply to these magazines.

4. The fixed ammunition, small arms ammunition and pyrotechnics magazines require primary and secondary lightning protection and fire protection. The high explosives magazines and the fuse and detonator magazines require secondary lightning protection only. Data for design of the lightning protection systems will be found in Chapter "O" of the Bureau of Yards and Docks Design Manual.

5. The total amount available for this project, including the acquisition of land, is $220,000. Two percent of this amount, or $4,400, is being retained for the pay of Bureau and Group IV(b) field employees. There is, therefore,

Sep 28 04 10:31a C R C I corp 603 433 3354 p.86

available for the purchase of land, contract construction work, and yard labor work, a total of $215,600. Pending the issuance of a formal change order under Contract NOy-4236, the contractor should be directed to proceed with the contract construction work at the earliest practicable date. A formal change order and allotments will be issued as soon as recommendation is received as to the estimated amount of the proposed change order and the amounts required for the purchase of land and for yard labor work.

C E Gullman

CC-Bureau of Ordnance
(with copy of Incl.(C))

Appro. — 220,000
45,000

Bureau 2% — $4,400
Land 30,000
Prior Yard Work 10,600
45,000

& Nb

$175,000 — NOy 4236

A1-1

28882

Sep 28 04 10:32a C R C I corp 603 433 3354 p.87

(87)

DOCUMENTS COPIED AT NATIONAL ARCHIVES, REGIONAL BRANCH, TRAPELO ROAD, WALTHAM, MASSACHUSETTS, BY JAMES DOLPH, NOVEMBER, 1994

COLLECTION: CORRESPONDENCE, PORTSMOUTH NAVAL SHIPYARD AND NAVAL BASE, BOX 2, A1-1 - A1-3, 1925-50

FILE

Checked by

A1-1 (28882-4) EMC

27 SEP 1941

From: Commandant.
To: Bureau of Yards and Docks.

Subject: Ordnance Storage Facilities - Jamaica Island.

Reference: (a) Comdt., Ports., Let. S78/NY1 (0-4) of Jan. 30, 1941, to Ch. Nav. Op., Via Bu. Ord. and Bu. Y&D.
(b) Bu. Y&D Let. A1-1 of Sept. 13, 1941.

1. Reference (a) recommended the acquisition of Jamaica Island east of the Navy Yard and the construction thereon of ammunition storage facilities for the submarines under overhaul and repair at this Yard. It was estimated that the cost to purchase the Island, provide the necessary access roads and railroad tracks, and to construct three magazines would be $220,000. Reference (b) gives the latest requirements for ammunition storage facilities proposed for Jamaica Island, as approved by the Bureau of Ordnance, together with the locations of the several types of magazines. These requirements call for the construction of 40 precast high explosive magazines, two fuse and detonator magazines, one fixed ammunition magazine, one small arms ammunition magazine and one pyrotechnics magazine.

2. It will not be possible to construct the 45 magazines which are now requested for the $220,000 which have been made available. The plans as outlined by Reference (b) with the purchase of the land, and the provision of all necessary facilities, will involve a total expenditure of $327,000. As only $220,000 have been appropriated, it will be necessary to obtain additional funds to complete the project as now outlined, or to reduce the scope of the work. The Bureau's instructions are requested.

JOHN D. WAINWRIGHT.

MAILED
Let.
Incls. 4

FILED

(89)

DOCUMENTS COPIED AT NATIONAL ARCHIVES, REGIONAL BRANCH, TRAPELO ROAD, WALTHAM, MASSACHUSETTS, BY JAMES DOLPH, NOVEMBER, 1994

COLLECTION: CORRESPONDENCE, PORTSMOUTH NAVAL SHIPYARD AND NAVAL BASE, BOX 2, A1-1 - A1-3, 1925-50

In reply address
Supply Officer,
U. S. Naval Shipyard,
Portsmouth, N. H.

U. S. NAVAL SHIPYARD
SUPPLY DEPARTMENT
Portsmouth, N. H.

BuOrd/S.O.260028/
(NY1-573)(EEC)(ST)

16 April 1946

From: Supply Officer - Code 573.
To: Bureau of Ordnance, Navy Department, Washington 25, D.C.

Subj: Bureau of Ordnance Shipment Order 260028, dated 4/9/46 - Information regarding.

1. Subject shipment order directs the shipment of 160 Warheads to NAD, Hingham, Mass. 162 Warheads were removed from the USS PROTEUS and disposed of as follows:

Shipped to NAD, Hingham, Mass. - 56 No. on 4/12/46, Invoice 23584-1X, Blading 14500159. 46 No. shipped 4/15/46, Invoice 23584-2X, Blading 14500192.

2. Sixty (60) Warheads are being retained in the magazine at this Yard pending such time as desired turned over to the PROTEUS.

Fred M. Rosseland, Jr.,
By direction.

CC: SO, Naval Ammunition Depot,
Hingham, Mass.

Folder 3 of 3
74
BY 428
Rec. + Const.

Sep 28 04 10:34a C R C I corp 603 433 3354 p.91

20

In reply address not the signer of this letter, but Commandant, U. S. Naval Base, Portsmouth, N. H.
REFER TO NO.
S78-1/NY1

FILE

NY1
S75-1

U. S. NAVAL BASE
Portsmouth, N. H.

19 February 1946. AS/S75
mm3
LS

From: Commandant.
To: Chief of the Bureau of Ordnance.

Subj: Storage Plan for Modern Torpedoes - Information concerning date of arrival.

Ref: (a) BuOrd Conf. ltr S75-1 (Mn 3a) of 21 November 1945.
(b) Comsublant Spdltr S70/S75/S78/(971) of 13 February 1946.

1. In order to properly reply to reference (b), information is requested concerning the expected arrival date of the material listed in reference (a).

2. The U.S.S. PROTEUS (AS19) is expected to overhaul at this Shipyard from 15 March to 7 June. If the material listed in reference (a) arrives during that period it will be impossible to store the warheads and torpedoes as requested.

3. By copy of this letter, Comsublant is advised that he will be informed concerning the storage of warheads and torpedoes when the above-requested information is received from the Bureau of Ordnance. If the material listed in reference (a) does not arrive during PROTEUS' overhaul it will be possible to store 35 warheads (plus exploders, boosters and detonators) and 150 (MK 14) torpedoes. The following material can be stored and is not affected by reference (a):

(a) Ammunition
1. 5"/38 cal. (Propellant charges only) - 780
2. 5"/25 cal. - 1277 rounds
3. 40 MM - 7000 rounds
4. 20 MM - 14,700 rounds
5. 50 cal. - 22,000 rounds
6. 30 cal. - 45,000 rounds

(b) Pyrotechnics - about 150 Cu. ft.

J. H. Brown, Jr.
J. H. BROWN, Jr.

Encl. (Hw)
1. Copy of ref. (b).

Copy: Comsublant (without encl.)

022546 0170

21

(92)

In reply address
Supply Officer,
U. S. Naval Shipyard,
Portsmouth, N. H.

BuOrd/S.O.260028/
(NY1-573)(EEC)(ST)

U. S. NAVAL SHIPYARD
SUPPLY DEPARTMENT
Portsmouth, N. H.

FILE

NY1
NT1-1
Ad 7
19C

16 April 1946

From: Supply Officer - Code 573.
To: Bureau of Ordnance, Navy Department, Washington 25, D.C.

Subj: Bureau of Ordnance Shipment Order 260028, dated 4/9/46 - Information regarding.

Adv-k

1. Subject shipment order directs the shipment of 160 Warheads to NAD, Hingham, Mass. 162 Warheads were removed from the USS PROTEUS and disposed of as follows:

Shipped to NAD, Hingham, Mass. - 56 No. on 4/12/46, Invoice 23584-1X, Blading 14500159. 46 No. shipped 4/15/46, Invoice 23584-2X, Blading 14500192.

2. Sixty (60) Warheads are being retained in the magazine at this Yard pending such time as desired turned over to the PROTEUS.

042246 0446

Fred M. Rosseland Jr
Fred M. Rosseland, Jr.,
By direction.

CC: SO, Naval Ammunition Depot,
Hingham, Mass.

SUBMARINES, ATLANTIC FLEET
c/o Fleet Post Office, New York, N. Y.

SPEED LETTER

File & Serial No.	Non-Classified	Restricted	Conf.	Date
S/70/S75/S78/(971)	xxxx			13 Feb 1946

From: COMSUBSLANT
To: (ACTION) COMNAVBASE PTSMH

REQUEST INFORMATION AS TO HOW MUCH OF FOLLOWING MATERIAL ON BOARD USS PROTEUS (AS19) CAN BE UNLOADED AND TEMPORARILY STORED AT PORTSMOUTH NAVAL BASE DURING FORTHCOMING OVERHAUL PERIOD:

WARHEADS (PLUS EXPLODERS, BOOSTERS, AND DETONATORS) - 180

TORPEDOES (MK 14) - 150

AMMUNITION

5"/38 CAL. - 780 RDS.

5"/25 CAL. - 1277 RDS.

40MM - 7000 RDS.

20MM - 14,700 RDS.

50 CAL. - 22,000 RDS.

30 CAL. - 45,000 RDS.

PYROTECHNICS - ABOUT 150 CU. FT.

/s/ G. H. Wales,

G. H. WALES,
By direction.

C O P Y

022516 0170

Sep 28 04 10:35a C R C I corp 603 433 3354 p.94

(23) (94)

US Navy Yard
Portsmouth, NH

3 July 44

From: Commandant
To: COMONE

Ref (a) COMONE Circular Letter No. 4-44

1. Complying with paragraph 5 of reference (a), it is reported that the specific location for the dumping of ammunition for activities within the area of the Navy Yard, Portsmouth N.H. is a circle of 2.5 miles radius whose center is Latitude 43° 13' 30" North, Longitude 70° 09' 30" West.

/s/ T. Withers

Copied by James Dolph, National Archives, Regional Branch Waltham, Ma

RG 181
Box 495
1st Naval District
Folder: Portsmouth Harbor and Navy Yard

Sep 28 04 10:36a C R C I corp 603 433 3354 p.95

US NAVY YARD
PORTSMOUTH NH

3 July 44

From: Commandant
To. Comone
Subj: Dumping Grounds, First Naval District

Ref (a) ComOne Circular Letter No. 4-44

1. Complying with paragraph 5 of reference (a), it is reported that the specific location for the dumping of ammunition for activities within the area of the Navy Yard, Portsmouth NH is a circle of 2.5 miles radius whose center is Latitude 43° 13' 30" North, Longitude 70° 09' 30" West

/s/ T. Whitten

Bx 495 RG181 Int. Naval Dist.
Georgia File
Folder Portsmouth Harbor and Navy Yard

Sep 28 04 10:38a C R C I corp 603 433 3354 p.101

(95)

C-878(JKIMO)

CONFIDENTIAL

15 May 1945

To: Commanding General, Harbor Defenses, Boston.

Subj: Dumping Grounds for Explosives, Ammunition, and Chemicals.

Ref: (a) CNO letr. Op-05-G11B/ztl(SC) S78-1 Serial 068705-G dated April 24, 1945.

1. Reference (a) directs the Commandants of Naval Districts to establish an area about ten miles square for use as a dumping ground for the subject material conforming to certain stated restrictions.

2. Examination of all factors involved indicates that the most suitable area for the First Naval District is comprised within a ten-mile square whose center is located in latitude 41°33'N, longitude 65°33'W.

3. Since reference (a) further directs that areas established are to be acceptable to certain other commands and activities including the appropriate U.S. Army authority, an expression of opinion is requested as to the location proposed.

W.D. Herbster,
Captain, U.S.N. (Ret.)
Assistant Commandant (Operations)

Sep 28 04 10:36a C R C I corp 603 433 3354 p.96

88 4/L11-3 30 ND B/031

Op411-N1/ztl
Ser. 26SP411

28 NOV 1945

From: Chief of Naval Operations.
To: Commandant, First Naval District.

Subj: Dumping Ground for Explosives, Ammunition, and Chemicals.

Ref: (a) CNO ltr Op-05-S11B/ztl ltr (SC)278-1 ser 068705-0 dtd 24 Apr 1945.
(b) Com 1 spdltr C-578/(TDHMM) dtd 1 May 1945.
(c) CNO conf dasp 151615 May to Com 1.
(d) Com 1 conf dasp 162012 May to CNO.
(e) Com 1 conf ltr 578(TDHMM) to CNO dtd 27 Aug 1945.

Encl: (A) Copy of ltr from the Hon. John W. McCormack to SecNav dtd 9 Oct 1945 w/enclosure.
(B) Copy of CNO ltr to the Deputy Coordinator of Fisheries ser 69P411 dtd 5 Nov 1945.
(C) Copy of Dept of Interior ltr to Admiral Farber dtd 15 Nov 1945.

1. A reexamination of the question of dumping explosives and chemicals in deep water has recently been made in the Office of the Chief of Naval Operations, and the decision was reached to revoke the authority previously granted (reference (e)) to the Commandant, First Naval District to dispose of ammunition and explosives in the dumping area designated in reference (d), viz.: the circular area of one-mile radius centered at Lat. 42-25-40 N Long. 70-54-58 W. The use of this area for the disposal of ammunition shall be discontinued immediately.

2. The permanent dumping area for the disposal of ammunition, the center of which is located in Lat. 41°-33' N Long. 65°-32' W is satisfactory. Ammunition previously disposed of in the area off Boston lightship may be disposed of in the permanent ammunition dumping area or in another area which may be selected by the Commandant, First Naval District in compliance with reference (a).

3. Enclosures (A), (B), and (C) are for your information.

W. S. Farber
Deputy Chief of Naval Operations (Logistics)

CC:
ComEastSeaFron
BuOrd
Comdt, Coast Guard

February 3, 1945

165 - Deep Sea Dump

97

U. S. NAVAL AIR STATION
BRUNSWICK, MAINE

NA116(RL:sr)
F41-10
3596

NA116
MN2

3 February 1945

020845 00744

To: Chief of the Bureau of Ordnance

Subj: Aircraft Bomb Fuzes, Navy Type - Disposal of.

Ref: (a) NavOrd OCL AV 28-44

1. In accordance with reference (a) aircraft bomb fuzes listed in enclosure (1) herewith were disposed of in deep water on 25 January 1945 at 43° 30' N Lat., 69° 59' W Long.

2. Aircraft bomb fuzes listed in enclosure (1) were disposed of because they had been in ready condition out of moisture proof containers for a period of longer than three weeks. Subject fuzes were turned in to this station by CASU 22.

E.M. ELLIS
Commander, USN
Commanding Officer

Enc.(MN)
(1) List of Aircraft Bomb Fuzes Disposed of

RG 74, BuOrd
E. 1529, Constr. + Proc. Files, 1945
Box 1216, NA 116

DECLASSIFIED
Authority NND 917625
By NARA Date 12 24 02

REPRODUCED AT THE NATIONAL ARCHIVES

Sep 28 04 10:37a C R C I corp 603 433 3354 p.98

February 3, 1945

165 - Deep Sea Dump

U. S. NAVAL AIR STATION
BRUNSWICK, MAINE

N4116(RL:sr)
F41-10
3596

NA116
MN2

3 February 1945

020845 00744

To: Chief of the Bureau of Ordnance

Subj: Aircraft Bomb Fuzes, Navy Type - Disposal of.

Ref: (a) NavOrd OCL AV 28-44

1. In accordance with reference (a) aircraft bomb fuzes listed in enclosure (1) herewith were disposed of in deep water on 25 January 1945 at 45° 30' N Lat., 69° 59' W Long.

2. Aircraft bomb fuzes listed in enclosure (1) were disposed of because they had been in ready condition out of moisture proof containers for a period of longer than three weeks. Subject fuzes were turned in to this station by CASU 22.

E.M. ELLIS
Commander, USN
Commanding Officer

Enc.(HW)
(1) List of Aircraft Bomb Fuzes Disposed of

RG 74, BuOrd
E. 1529, Constr. + Prot. Files, 1945
Box 1216, NA 116

DECLASSIFIED
Authority NND 817625
By NARA Date 12-24-0

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Sep 28 04 10:38a C R C I corp 603 433 3354 p.100

U. S. NAVAL AIR STATION
BRUNSWICK, MAINE

NA116 (RL:ds)
F41-6
4567

19 April 1945

NA116
MN2
04

0423345 0855

To: Chief, Bureau of Ordnance

Subj: Obsolete Bombs and Unserviceable Aircraft Bomb Fuzes and Rockets, Report on disposition of.

Ref: (a) BuOrd letter to NAS Brunswick, File No. NA116 (mn2d) dated 5 April 1945.
(b) BuOrd Pamphlet 1187
(c) BuOrd Circular letter AV28-44

1. Reference (a) authorized this station to dispose of thirty-three (33) Mk 49 Depth Bombs and seventy-five (75) Mk 57 Depth Bombs. In accordance with reference (a), this ammunition has been disposed of on this date.

2. In accordance with reference (b), five (5) aircraft rocket motors Mk 7 and seven (7) 2"25 rocket motors Mk 11 have been disposed of. These rockets were misfires and had been used in the Rocket Training Program at this station.

3. In accordance with reference (c), twenty-five (25) Mk 250, Mod 5, aircraft bomb fuzes, Lot No. 57, have been disposed of. These fuzes were turned in to this station by Fleet Air Wing Headquarters Squadron 9-1.

4. Ammunition mentioned in paragraphs 1 and 2 above has been billed on NAS Brunswick "Notice of Ammunition Issued" No. 117-45. All of the above ammunition was disposed of by dumping in deep water at approximately Lat. 43°-30'-00" N; and Long. 70°-00'-42" W.

E. M. ELLIS
Commander, USN
Commanding Officer

CC: ComOne (District Ordnance Officer)
Naval Air Bases (Attention: Ordnance Officer)

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U. S. NAVAL AIR STATION
BRUNSWICK, MAINE

NA116 (RL:ds)
F41-6
4567

19 April 1945

NA116
MN2
DN

042345 6855

To: Chief, Bureau of Ordnance

Subj: Obsolete Bombs and Unserviceable Aircraft Bomb Fuzes and Rockets, Report on disposition of.

Ref: (a) BuOrd letter to NAS Brunswick, File No. NA116 (mn2d) dated 3 April 1945.
(b) BuOrd Pamphlet 1187
(c) BuOrd Circular letter AV28-44

1. Reference (a) authorized this station to dispose of thirty-three (33) Mk 49 Depth Bombs and seventy-five (75) Mk 37 Depth Bombs. In accordance with reference (a), this ammunition has been disposed of on this date.

2. In accordance with reference (b), five (5) aircraft rocket motors Mk 7 and seven (7) 2"25 rocket motors Mk 11 have been disposed of. These rockets were misfires and had been used in the Rocket Training Program at this station.

3. In accordance with reference (c), twenty-five (25) Mk 230, Mod 3, aircraft bomb fuzes, Lot No. 57, have been disposed of. These fuzes were turned in to this station by Fleet Air Wing Headquarters Squadron 9-1.

4. Ammunition mentioned in paragraphs 1 and 2 above has been billed on NAS Brunswick "Notice of Ammunition Issued" No. 117-45. All of the above ammunition was disposed of by dumping in deep water at approximately Lat. 43°-30'-00" N; and Long. 70°-00'-42" W.

E. M. ELLIS
Commander, USN
Commanding Officer

CC: ComOne (District Ordnance Officer)
Naval Air Bases (Attention: Ordnance Officer)

(a) The contractor is installing a 4-inch by 5-inch window at station No. 146 above the bomb bay window for the sole purpose of visually inspecting the bomb bay for "hung up" bombs.

(b) The use of the Bomb Shackle Mk 8 and Mods and Bomb Shackle Release Mk 1 and Mods in later production will eliminate most of the difficulties presented by the present release system.

(c) Bureau of Aeronautics Service Bulletin No. 170 has been issued informing units that standard bomb loading may be released up to a glide angle of 60 degrees. However, caution must be observed not to violate T.O. 21-44. Tests to determine limiting dive angles while carrying clusters are now in progress.

ALL OPERATING UNITS ARE WARNED TO OBSERVE STRICTLY THE NEED FOR A CAREFUL COMPLETE VISUAL INSPECTION OF THE BOMB BAY PRIOR TO LANDING.—*BuAer. D. C. Ramsey; BuOrd, G. F. Hussey, Jr.*

NAVORD OCL AV15-45 Live-Loaded Bombs for Training Purposes—Establishment of Allowances of

F41-6(Mn2d), 21 April 1945

(Ref.: (a) NavOrd OCL AV7-45.)

1. An allowance of live-loaded aircraft bombs for training purposes is hereby established for the guidance of all activities. This allowance, for any single activity, will be based upon the pilots in training, in each type of aircraft, according to the following table:

(a) *For Pilots Undergoing Operational Training:*
- 1—500-lb. G. P. Bomb per CV Pilot.
- 1—350-lb. Depth Bomb per VO-VS Pilot.
- 2—500-lb. G. P. Bombs per Multi-engine Pilot.
- 2—350-lb Depth Bombs per Multi-engine Pilot.

(b) *For Pilots in Combat Squadrons Each Quarter (based on 60% Pilot Availability):*
- *3—500-lb. G. P. Bombs per CV Pilot.
- 3—350-lb. Depth Bombs or 500-lb. G. P. Bombs per Multi-engine Pilot.
- 3—100-lb. G. P. Bombs per Pilot (CV and Multi-engine).

2. The expenditure of bombs for training will be in accordance with reference (a) as long as any stocks exist. Subsequent revisions of reference (a) will indicate the release of additional types as necessary, to cover the over-all training requirements.

*In the Hawaiian Area each pilot is allowed two 500-lb. G. P. Bombs per 30-day period.

3. Training activities inside the continental limits of the United States may stock an allowance of live-loaded bombs for training, as listed in reference (a), not to exceed 50% of their service bomb allowance. Replenishment may be made from the nearest Naval Ammunition Depot without reference to this Bureau. Ex-continental activities shall use up all available local stocks of bombs as listed in reference (a) and then submit future requirements quarterly to their Area Commander.

4. The table listed in paragraph 1 is a guide to allowances only, and should not be considered binding on the Commanding Officer of any activity as to training expenditures, the latter being a matter under the cognizance of the Chief of Naval Operations.—*BuOrd, G. F. Hussey, Jr.*

NAVORD OCL AV16-45 Aircraft Bombs at Shore Activities—Surveillance and Disposal of

RESTRICTED F41-6(Mn2d), 25 April 1945

(Ref.: (a) NavOrd OD 5603.
(b) NavOrd OTI V26-44.
(c) NavOrd OCL X4-45.
(d) OP 5 (REV. 1).
(e) NavOrd OCL A89-44.)

1. A definite policy is hereby established for the segregation and disposal, where required, of present stocks of aircraft bombs, and of aircraft bombs returned from combat areas and combatant vessels.

2. Aircraft bombs shall be generally classified either SERVICE or OBSOLETE and all aircraft bombs shall be considered SERVICE until declared OBSOLETE by the Bureau of Ordnance. All Naval activities are directed to review all existing stocks of SERVICE aircraft bombs and by visual inspection segregate them into the following defined classification for disposition:

(a) *SERVICEABLE*—Aircraft bombs which have not been classified unserviceable as hereinafter defined and which are complete subassemblies in accordance with reference (a) are to be classified SERVICEABLE, and are to be kept in stock for issue.

(b) *INCOMPLETE*—Serviceable aircraft bombs as described in paragraph 2 (a), above, which are incomplete subassemblies in accordance with reference (a) are to be classified INCOMPLETE. All such bombs are to be retained and rendered complete by the assembly of the missing components. The necessary components, if not available locally, may be requested from this Bureau. Upon completion, the bombs are to be classed SERVICEABLE and are to be kept in stock for issue.

(c) *OVERHAUL (TEMPORARILY UNSERVICEABLE PENDING OVERHAUL)*—Aircraft bombs adjudged unfit for service use due to corrosion, or immersion in sea or oily water, are to be overhauled and returned to stock for issue. However, only the following overhaul is permissible, and then only by responsible ordnance personnel:

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(1) *Corrosion*—Exterior surfaces of the bomb cases may be cleaned of accumulated dirt, rust, or corrosion with copper or brass brushes and scrapers, unless the corrosion is such that the case is dangeously thin. Threaded parts shall be cleaned with copper or brass wire brushes, and all suspension lugs shall be smoothed with emery paper as directed in reference (b).

(2) *Oil and Foreign Matter*—A noninflammable solvent, preferably carbon tetrachloride, may be used to remove oil or foreign substances on the outer surfaces of the bomb case, in the athwartship tube of depth bombs or in the tail and nose fuze cavities, but care must be taken that it is not allowed to seep into the explosive contents around the fuze cavities. Only nonalkaline solvents shall be used. In all cases exactly the same markings and stenciled legends are to be reapplied to the bomb case and a thin film of oil should be applied to threads. When overhauling bombs, general safety precautions as prescribed in the Bureau of Ordnance Manual, paragraph 13H4, and in reference (d), shall be enforced.

(d) *UNSERVICEABLE*—Aircraft bombs, requiring repairs other than those permitted above, shall be classified UNSERVICEABLE. Damaged or broken suspension lugs, cases broken open or corroded through, damaged or out-of-line fuze seat liners, or any damage to the bomb which affects its ballistic characteristics or renders it dangerous to handle, that cannot be readily or safely repaired, shall be considered cause for classification as UNSERVICEABLE. Particular attention should be directed to depth bombs since these are light case bombs and they are easily dented or may be corroded completely through. A dented case in itself is not dangerous unless the case is broken, fuze cavities are distorted, fittings canted out of line, or the body so bent that the tail will not properly seat. It is therefore directed that any depth bomb whose case is dented be carefully checked for distortion or malalignment of fittings, fuze seat liners, and tail vanes, and that all questionable bombs be classed UNSERVICEABLE.

3. All unserviceable bombs shall be disposed of as expeditiously as possible in accordance with the following instructions:

(a) Continental activities shall request specific disposition instructions from the Bureau of Ordnance. All unserviceable bombs to be disposed of shall be listed, with a complete description of their condition. Other pertinent information desired, if available, is the cause of their condition, and the facilities available for disposition in deep water, by detonation, or by burning. Reference (d) shall be consulted for general instructions governing the location and methods of disposition. If no facilities exist for any of the above methods of disposition, arrangements will be made by this Bureau for shipment to an activity with disposal facilities.

(b) Ex-continental activities shall dispose of unserviceable bombs under the express direction of the Area or Theater Commanders, as Class II (unserviceable) Ammunition in accordance with reference (e). All bombs so disposed of shall be reported to the Bureau of Ordnance giving all pertinent facts as to the reason for unserviceability.

(c) Continental Naval activities shall, prior to the disposal of any bombs, strip them of all components. These components will either be returned to stowage if common to other bombs, or disposed of in accordance with reference (c). Ex-continental activities shall scrap all nonusable components locally.

4. Those activities which report inventories of bombs (Class A Material) to the Bureau by means of the Ammunition Stock Recording System shall code the above classifications as follows:

(a) *SERVICEABLE*—The six digits shall end in 0.
(b) *INCOMPLETE*—The six digits shall end in 5.
(c) *OVERHAUL*—The six digits shall end in 9, until the item is made serviceable when it shall be recoded.
(d) *UNSERVICEABLE*—The six digits shall end in 9.

5. From time to time this Bureau will publish a list of those bombs which have been declared OBSOLETE and will indicate which of the following four types of disposition will be permitted or required:

(a) Disposal in deep water.
(b) Disposal by detonation.
(c) Disposal by burning.
(d) Disposal by expending practice.

OBSOLETE bombs to be disposed of by (a), (b), or (c), above, are those that have become no longer useful and are not considered economical for further stowage. These shall be classed OBSOLETE, UNSERVICEABLE and so listed in the Ammunition Stock Recording System. Disposition of obsolete bombs shall be in accordance with paragraphs 3 (a) and (b), above, for unserviceable bombs. Only those obsolete bombs specifically designated for practice may be so used. OBSOLETE bombs to be expended in practice shall be examined and classified in the same manner as indicated for SERVICE bombs in paragraphs 2 and 3, above, and incomplete bombs shall be made complete as directed. OBSOLETE bombs requiring minor overhaul for expenditure in practice may be reworked for use; however, if extensive, uneconomical overhaul is required the bombs shall be considered UNSERVICEABLE and disposed of by (a), (b), or (c), above. Transfer to training activities may be requested for OBSOLETE bombs which are designated for practice and stowed at continental activities where no operational training with live bombs is being carried on, and where stowage space is critical. Ex-continental activities with limited opportunities for expenditure in operational training may dispose of any obsolete bombs by (a), (b), or (c), above. In all cases of disposition by ex-continental activities by detonation, burning, or dumping in deep water, a qualified bomb disposal officer shall supervise.

6. Fragmentation, incendiary, and smoke clusters will be examined, segregated, and repaired by responsible ordnance personnel in accordance with the above directions, with the following exceptions:

(a) M28 and M29 fragmentation clusters—The cluster adapter when loaded with M83 bombs may not be opened for any purpose.

(b) Incendiary and smoke clusters shall not be disassembled.

Clusters which are classified UNSERVICEABLE shall be disposed of under the supervision of a bomb disposal

officer. In general, incendiary and smoke clusters should be disposed of by burning or detonation, fragmentation clusters by dumping in deep water. Disposal by detonation, burning, or by dumping in deep water will be accomplished as directed in paragraph 3.

7. Chemical bombs and clusters shall be examined and any missing components should be replaced in accordance with paragraph 2 (b), above. Instructions for the handling, repair, maintenance, and disposition of chemical bombs and clusters are included in reference (d), Chapters 25 through 30, inclusive, and shall be carefully observed.

8. To minimize handling, all aircraft bombs turned in to coastal activities from combat areas and combatant ships should be inspected and segregated as above and appropriate disposition should be effected.—*BuOrd, G. F. Hussey, Jr.*

NAVORD OCL A17-45 Demolition Charges Mark 2 Mod 0, Mark 2 Mod 1, and Mark 2 Mod 2

RESTRICTED S76-3(2)(Re2g), 3 March 1945

(Ref.: (a) NavOrd OCL A55-44 Dated 24 July 1944.)

1. Paragraphs 3(b) and 12(d) of reference (a) describe Demolition Charges Mk 2 Mod 0, Mk 2 Mod 1 and Booster Mk 13.

2. Recent tests revealed that high order detonation is not obtained in some cases when the Booster Mk 13 is used with Demolition Charges Mk 2 Mod 0 or Mod 1.

3. In order to use the Booster Mk 13 in Demolition Charges Mk 2 Mod 0 and Mk 2 Mod 1, the following instructions must be adhered to:

Remove T.N.T.—Tetryl Block (demolition charge Mk 4), pack booster well ¾ full of composition C2 or C3 (Army designation, Blocks Demolition M3 or M4). Insert Booster Mk 13 so as to be completely buried in the plastic explosives. In the event no plastic explosive is available, use ½ lb. Block of pressed T.N.T. (Demolition Charge Mk 3, Army designation Block ½lb. T. N. T.).

4. Demolition Charge Mk 2, Mod 2 is a modification under development which allows the use of either mechanical or electrical firing without using the Booster Mk 13. As soon as this is developed, further instructions will be issued covering distribution of Demolition Charge Mk 2 Mod 2 and conversion of Demolition Charges Mk 2 Mod 0 and Mk 2 Mod 1, to Demolition Charge Mk 2 Mod 2.—*BuOrd, G. F. Hussey, Jr.*

NAVORD OCL AV18-45 Aircraft Rockets—Stowage Aboard Aircraft Carriers

(Re2d), 17 May 1945

(Ref.: (a) BuOrd C/L A-341 dated 8 May 42.
(b) 1943 Edition of Bureau of Ordnance Manual.)

1. This Ordnance Circular Letter summarizes general regulations for stowage of aircraft rocket components on board aircraft carriers. As the stowage regulations are revised, this Ordnance Circular Letter will be superseded by another, setting forth the new regulations. In cases where the information in Ordnance Pamphlets is contradictory to that contained herein, the rules of this letter are to apply; the Ordnance Pamphlet will then be brought up to date as soon as possible. General rules which must be followed when stowing rockets and rocket components aboard aircraft carriers are promulgated in the following paragraphs:

2. *Rocket Motor Stowage*

a. Currently rocket motors are being issued in wooden shipping containers and may be stowed in these containers aboard aircraft carriers. Although these shipping containers are not waterproof and are considered to be a fire hazard when stowed in magazines, they do afford protection for the rocket motors.

b. The Chief of Naval Operations has authorized unboxed stowage of rocket motors, 20% of 3.25" and 5.0" motors to be stowed with fin assemblies attached. When rocket motors are stowed unboxed, the following requirements should be incorporated in arranging stowage:

(1) They must be supported at two points. The spacing between supports for 3.25" and 5.0" rocket motors should be 15.0" or greater with supports located approximately equidistant from the center of the rocket motor and without interference with launching lug bands.

(2) They must be adequately protected against any motion or shifting.

(3) Stacking in any manner wherein the motors would rest upon each other is prohibited.

(4) Stowage must be in a horizontal position.

(5) The electric system must be adequately protected so that no breaks or short circuits will result from the unboxed stowage.

(6) The external fittings must be protected against damage.

(7) Suitable protection against deformation of the metal parts must be provided, so as to avoid damage to, or dislocation of, the propellant grain.

(c) Rocket motors must be stowed in primary powder magazines as defined in section 14B of reference (b). Small numbers of rocket motors, but not assembled rockets, may be stowed in ready service magazines, compartments or lockers as defined in section 14B of reference (b). The provisions of reference (a), with the exception of subparagraphs 5(c), 5(d) and 5(e)(1), are applicable to rocket propellant powder.

d. Rocket igniter squibs are similar to electric detonators, the stowage of which is covered by U. S. Navy Regulations, 1920, Article 972, subparagraph 103(d). Accordingly, rocket motors shall not be located in the same compartment with or near radio apparatus or antenna leads.

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AO 134-42 pp 35 2-4-2
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ORDNANCE CIRCULAR LETTERS

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A BUREAU OF ORDNANCE PUBLICATION

15 NOVEMBER 1945

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Sep 28 04 10:43a C R C I corp 603 433 3354 p.106

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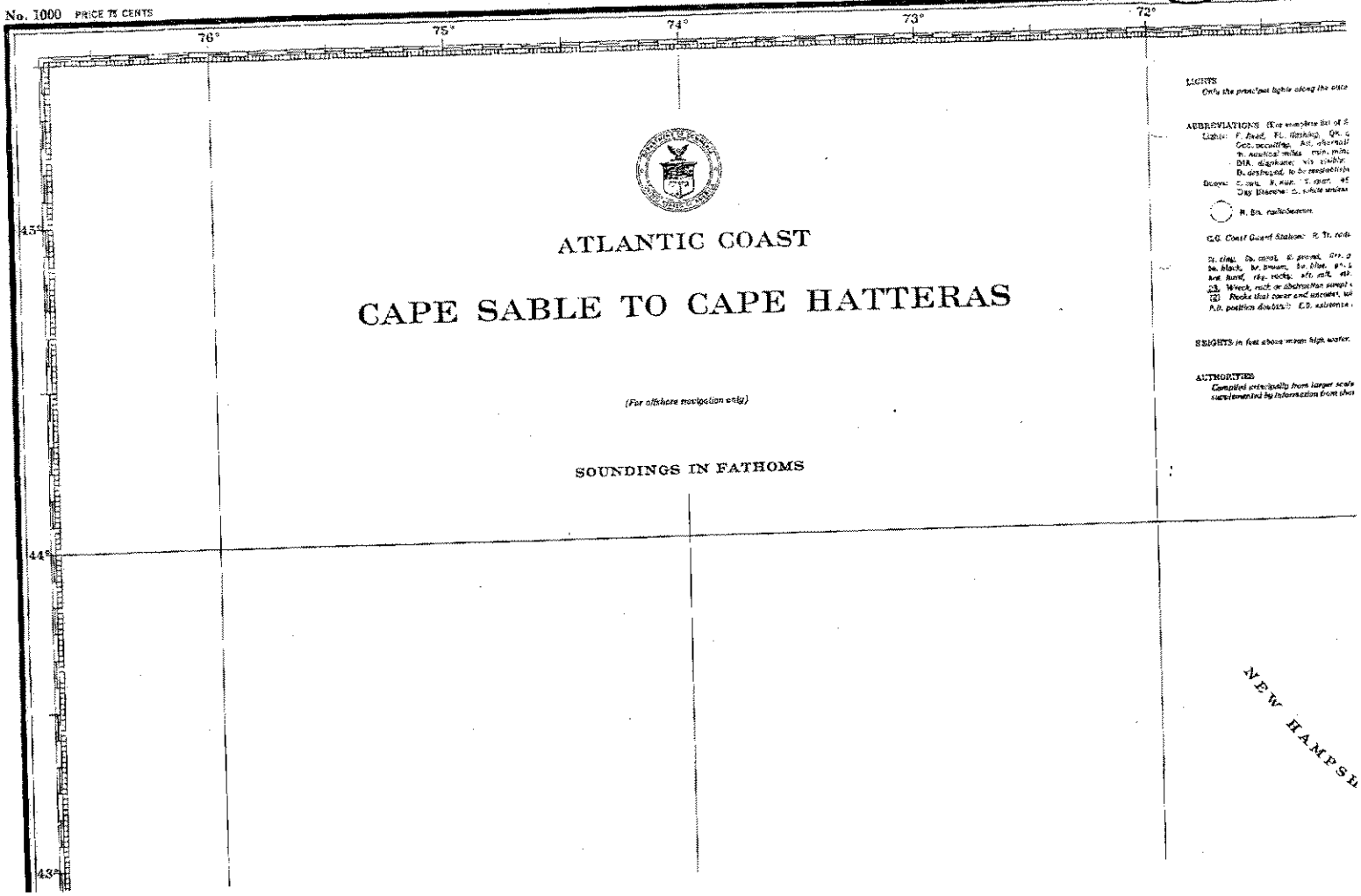

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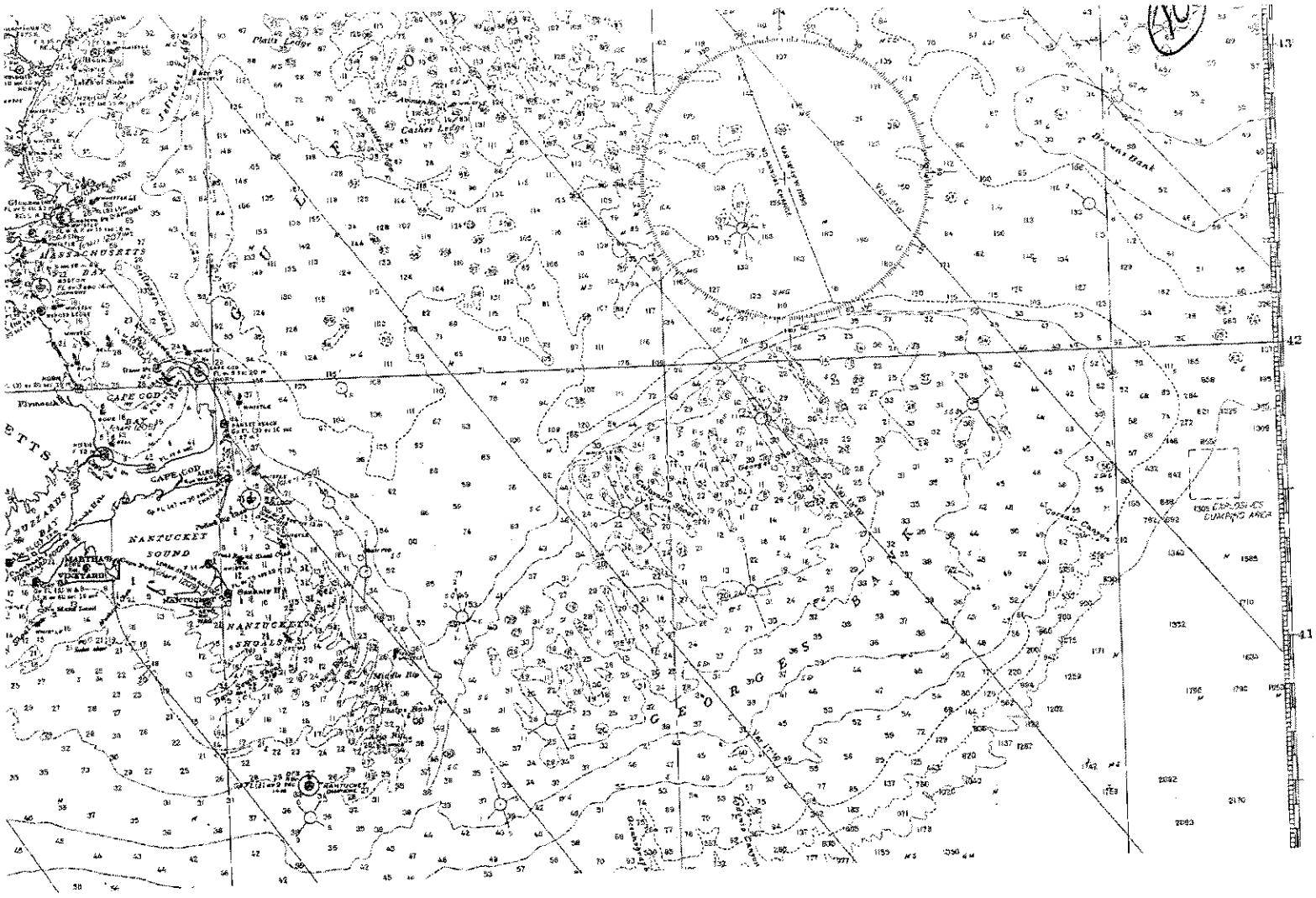
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EXPLOSIVES DUMPING AREA
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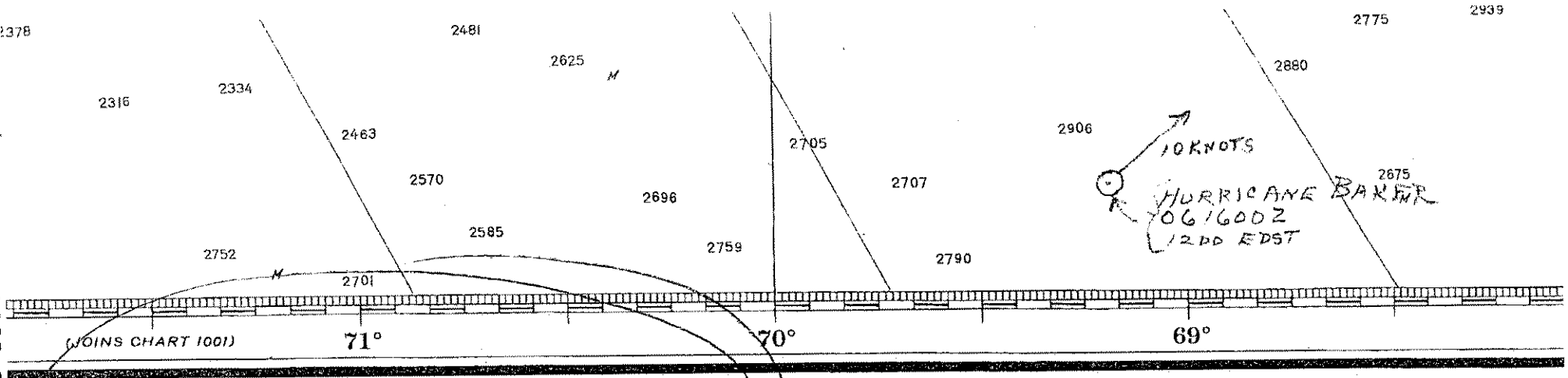

Published at Washington, D. C., Nov. 1949 (13th Edition)
(First Edition 1900)
U. S. COAST AND GEODETIC SURVEY
R. F. A. Studds, Director

LIGHTS, BEACONS, BUOYS, AND DANGERS CORRECTED FOR INFORMATION RECEIVED TO THE FOLLOWING DATE

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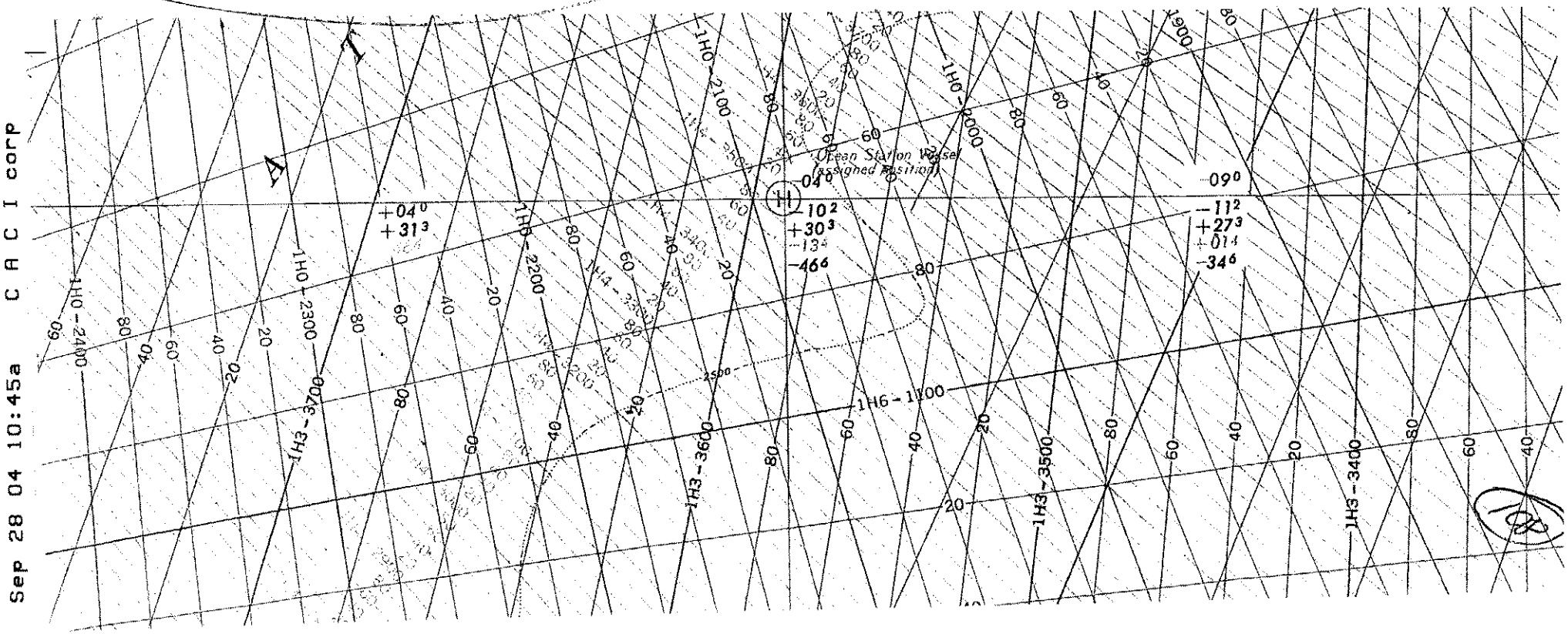

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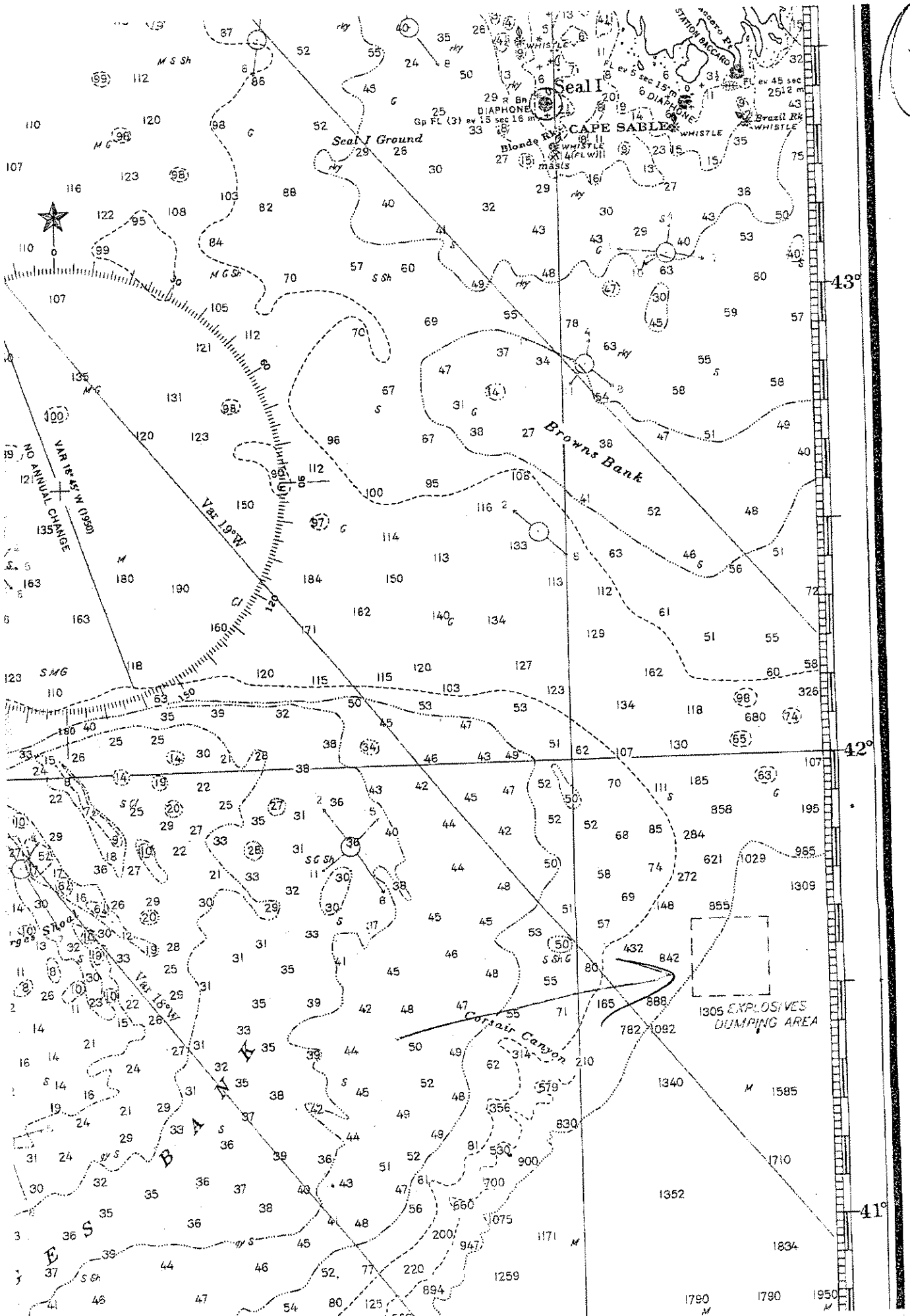

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DEPARTMENT OF THE NAVY
PORTSMOUTH NAVAL SHIPYARD
PORTSMOUTH, N.H. 03801

IN REPLY REFER TO
NAVSHIPYD PTSMHINST
8023.1G (810)

NAVSHIPYD PTSMH INSTRUCTION 8023.1G

From: Commander, Portsmouth Naval Shipyard

Subj: Ammunition and Explosive Material Handling Procedures

Encl: (1) Qualification and Certification Procedures
(2) Ammunition and Explosive Material Handling Restrictions and Safety Precautions
(3) Procedure for Ammunition Loading/Off-loading
(4) Detection and Prevention of inclusion of live ammunition or explosives in the shipment or receipt of empty cartridge cases, or in the sale of scrap material

1. Purpose. This instruction establishes procedures governing the loading/off-loading and handling of ammunition and other explosive materials; promulgates ammunition safety instructions to be observed in the Portsmouth Naval Shipyard and by ships assigned for overhaul, availabilities, and convenience berthing; establishes a standard qualification and certification program for personnel who are required to handle conventional arms, ammunition, and explosives (AA&E); and prescribes the general requirements for disposition, handling, and stowage of ammunition, pyrotechnics and explosives.

2. Cancels. NAVSHIPYD PTSMH INST 8023.1F

3. Effective Date.

4. Background Information

a. General: Improper handling, loading, processing, or testing of AA&E material has, in the past, resulted in loss of life or injury, and damage to property amounting to millions of dollars, in addition to the reduction of operational effectiveness of both fleet and shore activities. NAVSEA OP 4 indicates that a major source of these mishaps has been human error. To reduce these incidents/accidents, this instruction establishes standard requirements governing the qualification and certification program for all personnel involved in all phases of AA&E operations. Enclosure (1) establishes the procedure by which personnel will be certified and should be the basis for the establishment of guidelines necessary to implement departmental certification procedures. Enclosure (2) sets forth restrictions and safety precautions for the handling of AA&E at Portsmouth Naval Shipyard. Enclosure (3) provides the AA&E Handling Scenario for guidance and clarity. The procedures set forth in enclosure (4) will prevent non-certified personnel from being unknowingly exposed to the hazards of Ammunition and Hazardous Materials Handling (AMHAZ) both on and off the Shipyard in accordance with Department of Transportation Regulations.

b. Definitions

(1) Ammunition: All components of any explosives in any case or contrivance prepared to form a charge, a complete round, cartridge for gun or small arm, stud driver, or for any weapon or device, torpedo warhead, mine, bomb, depth charge, demolition charge, fuze, detonation, projectile, signaling device, all signaling and illuminating pyrotechnic material, all rocket ammunition, all chemical warfare materials and all solid and liquid propellants.

(2) AMHAZ Material: Includes ammunition, pyrotechnics and explosives of any kind.

(3) AEDA: Ammunition, explosives, and dangerous articles.

(4) Explosive Material: All hazardous material exclusive of ammunition or pyrotechnics, which, by chemical nature or deterioration is likely to detonate with or without the application of an external force.

5. Policy

a. Handling. All ammunition, explosive and explosive device handling at Portsmouth Naval Shipyard will follow the procedures and be subject to the restrictions of enclosures (2) and (3). The handling of gas generators from the time they leave the storage magazine for further transfer to shipboard handling equipment will be in accordance with Process Instruction 3655-904-023.

b. Inherently Dangerous Operations Running Concurrently. The handling of explosive devices is defined in Technical Specification 6010-899-099 as a high risk evolution and therefore will be controlled as such by the Ships Safety Council in accordance with the Manual for the Control of Testing and Ships Condition (6010). Under no circumstances will an oxygen charge/discharge or fuel or oil loading/off-loading be in progress during an ammunition movement on the same ship. For two ships located in adjoining berths, a minimum of 100 foot clearance shall be measured from the posted area of one operation to the posted area of the second.

6. Scope

a. This instruction is applicable to the Shipyard and all tenant commands for the handling and movement of explosives and explosive devices and is applicable to all personnel (civilian and military, including tenant commands) whose duties include operations or tasks involving explosives and explosive devices. Such personnel shall be qualified and certified as directed by enclosure (4) to OPNAV INST 8023.2 and in accordance with NAVSEA INST 8020.9. All explosives, ammunition, weapons (including inert ordnance material) and devices utilizing conventional explosives, pyrotechnics, or incendiary material for their operation are included in the general term "explosive devices".

b. This instruction is not applicable to explosive ordnance disposal (EOD) operations which are governed by separate Qualification and Certification Programs nor to radioactive or fissionable materials which are covered in other Shipyard instructions. It is not the intent of this instruction to duplicate Process

Instruction 3655-904-023 (instruction for gas generator handling), but to supplement it for informational purposes only. If conflict is noted, the more conservative requirement will be followed.

7. Responsibilities.

a. The Director, Occupational Safety and Health Office (Code 106), in addition to the responsibilities set forth in OP 3243 and Chapter 1 of OP 5, Volumes 1 and 2, is responsible for providing guidance for the Shipyard Ammunition and Explosive Qualification and Certification Program.

b. The Administrative Officer (Code 800) is assigned overall responsibility for ensuring compliance with all directives of higher authority in administering the transportation and storage of ammunition and explosive material under the cognizance of this Shipyard.

c. The Military Support Officer (Code 810) is responsible for:

(1) Storing and transporting all ammunition and explosives on the Shipyard.

(2) Maintaining the operation, safety and security of the ammunition storage area.

(3) Maintaining a Qualification and Certification Program for military personnel assigned to the Shipyard who handle ammunition and explosives.

(4) Insuring all Shipyard ammunition or explosive handling evolutions comply with current directives.

d. Public Works Department, Transportation Section, Code 452, is responsible for providing a vehicle which meets safety requirements for the transportation of explosive material to the Weapons Office, Code 810.1.

e. The Combat Systems Officer (Code 190) is responsible for:

(1) Supervising the handling of gas generators from the time they leave the storage magazine.

(2) Maintaining a Qualification and Certification Program for personnel who handle gas generators.

f. Shipyard Department/Office Heads are responsible for ensuring that all Shipyard personnel supervising or performing operations involving ammunition, explosive devices or explosive material handling are qualified and certified in accordance with NAVSEA INST 8020.9 and implementing Shipyard instructions.

g. Commanding Officers of ships present at the Shipyard are responsible for:

(1) Off-loading ammunition, including torpedoes, missiles, boosters and detonators, prior to arrival at Portsmouth Naval Shipyard in accordance with the directives of the Type Commander.

(2) Ensuring that all ship's force personnel supervising or performing ammunition or explosives material handling operations are qualified and certified in accordance with NAVSEA OP 4, and implementing Fleet Command and Type Commander Instruction, and that the regulations and procedures of this instruction are followed.

8. Management Overview. The Administrative Officer (Code 800) is assigned accountability for insuring compliance with this directive.

9. Action

a. Personnel involved in the handling and storage of ammunition will ensure that the provisions of this instruction are followed and that any deviations are immediately brought to the attention of the on site Weapons Office representative.

b. The Administrative Officer (Code 800) will direct the Qualification and Certification Program in accordance with referenced instructions and implementing procedures.

c. Shipyard Department/Office Heads having personnel performing tasks involving ammunition, explosives or explosive devices will:

(1) Ensure that all personnel selected to handle ammunition or explosive material are qualified and certified in accordance with this instruction.

(2) Maintain complete documentation of the Certification/Recertification Records of certified employees.

d. Employee Development Division will assist in coordinating standard training courses for the certification of trainees.

J. F. YURSO

Distribution:
A, B, E, F, G, T, U, W,
DPDO, NIS, NRC, MARBKS
862 (15)

QUALIFICATION AND CERTIFICATION PROCEDURES

1. Department Heads must ensure that personnel whose duties include supervision or performance of evolutions or tasks involving explosive materials, ordnance, or devices are qualified and certified in accordance with NAVSEA INST 8020.9 as follows:

a. Certifying Authority. Certification Committees will include the Military Support Officer (Code 810), one individual who is certified to perform the function or task under consideration and a representative of the Occupational Health and Safety Office (Code 106). The Certification Committee shall establish implementation procedures for this instruction and monitor training, qualification evaluation and certification procedures to ensure realistic implementation of this instruction.

b. The Certification Board will consist of the Military Support Officer (Code 810) or representative and at least one individual who is knowledgeable in the function or task to be performed. The Certification Board shall approve/disapprove each certification based on information provided by a supervisory level person who has been certified and is qualified to perform the task and who actually evaluates the person to be certified, the Medical Department evaluation of the person to be certified, the individual's direct supervisor's evaluation of the person to be certified, and information contained in the personnel jacket of civilians or on page 13 of the service record for military.

2. Qualification Procedure

a. Qualification of personnel shall be as an individual, as a member of a team, or as a team leader at either a general or a skilled level as defined in paragraphs 5 and 6.

b. All personnel employed in explosive material/ordnance/devices operations, inspections, or supervision shall receive a general indoctrination in the hazards involved; general safety, fire, security and health regulations; and emergency or hazardous condition procedures and reporting.

c. All personnel involved shall receive training in the appropriate explosive material/ordnance/devices family types, as well as in the operational family type. The explosive material/ordnance/devices may be segregated into representative family types, to preclude the necessity for qualification for each specific item or material. All personnel must be knowledgeable with respect to the types of explosive material/ordnance/devices with which they work. Guidance on family groupings and on classification of ammunition hazards can be found in NAVSEA INST 8020.9 and NAVSEA OP-5, Volume 1. It may be desirable to certify individuals in multiple tasks in any given evolution or operation to provide assignment flexibility for that specific evolution or operation.

d. All personnel shall receive sufficient training to demonstrate the required knowledge and skills to be qualified to perform the particular tasks assigned. Such training and qualification for specific tasks shall be based on task hazard analysis which should as a minimum identify the care and use of required protective devices or equipment, what hazards exist, the accident triggering events, as well as the potential worst case effects of the accident.

3. Certification. Upon being qualified, each person shall be certified by the Certification Board. Records will be maintained indicating personnel who have been qualified. Attachment (1) to this enclosure may be used to document certification. The certification sheet format may be varied as necessary.

4. Personnel requiring individual qualification and certification

a. All personnel whose duties require that they individually inspect (including acting as safety observers), perform operations, or supervise operations involving explosive material/ordnance/devices shall be qualified and certified for such tasks. (Magazine inspections shall be included within the personnel qualification and certification program.) At least one member of the Certification Board shall also be individually certified for the evolutions which he observes for qualification purposes.

b. All persons who instruct informal certification qualifying courses.

5. Personnel requiring team/team leader qualification and certification. Personnel whose duties require performing, inspecting, or supervising explosive material/ordnance/devices operations as members of a team or work group shall be qualified and certified in the evolutions involved, as a team or individually. If team operations are involved, a team leader shall be designated and so qualified and certified. Personnel changes in qualified and certified teams must be kept to a minimum. A team must be recertified upon transfer or loss of the team leader.

6. Personnel requiring skilled qualification and certification. All personnel who directly supervise, instruct in the performance of, or perform the following: all operations of power-operated handling equipment (hoists, winches, cranes, forklifts, etc.) and transportation equipment shall be certified and shall meet the requirements for the hazardous material handling and transportation equipment operators as set forth in NAVORD OP 5 (Ammunition Ashore) and NAVORD OP-2165 (Navy Transportation Safety Handbook). Public Works personnel utilized to operate such equipment for handling or transporting explosive material/ordnance/devices are included in this requirement.

7. Personnel requiring general qualification and certification. All personnel who inspect, supervise, instruct in the performance of, or perform operations involving explosive material/ordnance/devices shall receive a general certification. Normally, personnel assigned to explosive material/ordnance/device manual handling, storage, stenciling, inert preparation, segregation, packaging, unpackaging, and similar operations shall require only a general certification.

8. Duration of certification. Certification, unless revoked for cause, shall be valid for a maximum of 12 months. A renewal of the certification, whether issued at the time of expiration or later, shall be granted only after the individual or team qualification has been revalidated by the certifying authority. Complete requalification shall be accomplished prior to renewal of a certification for all personnel whose performance may be questioned, or whose certification has been revoked.

9. Revocation of certification. The cognizant Department Head is responsible for revocation of individual or team certification whenever such action is deemed to be in the best interest of safety. Revocation of certification of involved individuals, teams and/or team leaders, however, is mandatory in the event an explosive mishap is caused by failure to adhere to, or utilize, authorized operating procedures. Flagrant disregard of safety precautions; reckless operation of explosive material/ordnance/devices handling equipment, transportation equipment, or other equipment, or other behavior indicating incompetence or unreliability shall also be cause for mandatory revocation of certification. It should be recognized that ordnance incidents/accidents can and do happen through acts of negligence and minor rule infractions as well as through major rule infractions. Personnel whose certification has been revoked shall be retrained until requalified, and recertified if such action is deemed appropriate and advisable. If, however, the demonstrated behavior of an individual indicates that such retraining may be ineffective, the individual shall be assigned other tasks not involving explosive material/ordnance/devices. In the instance of military personnel, cause shall be entered on page 13 of the individual's service record as well as on the certification card. For civilians, a notation shall be made in the individual's personnel jacket indicating cause for revocation of the certification.

10. Transfer of certification. The acceptance of explosive material/ordnance/devices certification of personnel transferred to another activity is at the discretion of the receiving activity. The transferring activity shall:

a. For military personnel, enter on page 13 of the service record of the individual being transferred his qualifications and dates of certification/decertification for specific evolutions involving explosive material/ordnance/devices.

b. Civilian employees who transfer to another activity shall normally be recertified prior to performing explosive material/ordnance/devices operations, unless the certification information in the individual's personnel jacket is forwarded to the receiving activity, and is deemed acceptable by the activity to which the individual transferred.

c. Personnel transferring to another function within or outside the same activity shall be certified for the new function or hold a valid certification which is applicable.

11. Initial certification. This instruction requires certification of persons performing jobs which have not heretofore required certification. This presents a problem in ensuring the qualification for certification of supervisors performing initial qualification evaluations. In most cases, experienced supervisors will be qualified for certification; however, care must be taken to ensure that they are in fact qualified.

a. Where necessary, qualified personnel should be obtained from other activities to assist in initial certification. Outside help is particularly desirable where new explosive devices are being handled.

b. Prior to certification or recertification, an individual's personnel jacket and medical record shall be reviewed to ascertain if there may be reason for non-certification in any particular area of work.

CERTIFICATION SHEET

Procedure Serial No.	Change No.

I have read and understand my Particular operation(s) of this procedure. I have been briefed on the overall process and have discussed it with my supervisor.*		I have conducted drills/practice runs and/or observed operations to assure that the person whose signature appears opposite can perform the operations he is assigned in this procedure.*	
CERTIFIED PERSONNEL	Date	CERTIFYING AUTHORITY	Date

*Persons receiving certification for "skilled" operations shall be indicated by "SK"; persons receiving only a general certification will be designated by "G"; supervisory personnel will be designated by an "S"; and designated and qualified team leaders, if applicable, will be noted by the letters "TL" after the signature.

AMMUNITION AND EXPLOSIVE MATERIAL HANDLING
RESTRICTIONS AND SAFETY PRECAUTIONS

1. General Restrictions on loading/off-loading or handling in support of ships:

a. The loading/off-loading and other handling of ammunition at the Shipyard will normally be limited to small arms and that quantity of pyrotechnics required for navigational and safety purposes. Loading/off-loading must be accomplished between sunrise and 30 minutes after sunset to assure that no ammunition is left on board vehicles in the Shipyard during the hours of darkness.

b. Handling in Drydock. No ammunition, pyrotechnics, or other explosive material will be loaded/off-loaded or otherwise handled within the ship while in drydock.

c. Ammunition will not be off-loaded to a pier until authorized by the Military Support Officer (Code 810).

d. The Military Support Officer will not authorize off-loading of ammunition until suitable transportation is standing by to effect prompt transfer.

e. The Military Support Officer will not authorize commencement of handling operations to on-load ammunition until the ship is prepared to receive ammunition.

f. No smoking is authorized on board the ship during handling evolutions or within 500 feet of the immediate handling area.

g. Handling gear must be certified as follows by Shop 72 riggers:

(1) All handling gear must be of a design capable of handling a working load of at least 50% greater than the actual weight being handled.

(2) Slings, pendants, strong backs and other related weapons handling equipment must be tested semi-annually to at least 200% of rated static load.

(3) Mechanical endings must have a minimum breaking strength equal to the catalogue strength of the wire rope from which they are made.

(4) All hooks must be of a safety type or moused. No open hooks shall be permitted.

(5) To eliminate excessive drift, slings and pendants should be as short as practical.

(6) All handling gear must be positively identified and serialized. See paragraph 8-6.3.2 of NAVORD OP 5, Volume 1 (4th rev.). Proof of certification test and dates must be available for verification.

h. No handling will take place without fire department equipment and security personnel being present on scene.

i. All handling areas must be clean, well-defined and properly identified with proper signs posted.

2. Safety Precautions for Ammunition and Explosives Handling. Safety is an inherent responsibility of command; thus organization for safety must follow the chain of command. It is important that all personnel concerned recognize the hazards involved in ammunition handling and that AA&E handling in support of Portsmouth Naval Shipyard's mission can be effected within approved acceptable safety hazards. This knowledge will reduce the possibility of error as operations are conducted with the greatest degree of explosive safety conscientiousness. All hands will comply with the following safety precautions:

a. No fuel or gasoline will be handled on board or in close proximity to the ship.

b. Restrict electromagnetic radiation on board or in close proximity.

c. No burning, welding, open fire, or other work which is likely to produce sparks will be performed on the ship or pier within 500 feet of a ship when loading/off-loading ammunition, or within 500 feet of ammunition being handled or stowed.

d. No burning, welding, open fire, or other work likely to produce sparks is to be performed on other ships within 500 feet of the ammunition unless such work is with inside the skin of the ship at any other berth other than the berth at which ammunition is being handled.

e. No welding cable or gas hose may be within 20 feet of the explosives unless the cable is separated from the ammunition by a compartment or void space.

f. No exposed oxygen or acetylene flasks may be within 100 feet of explosives.

g. Adequate and safe lighting will be available at all handling points.

h. Area control personnel will be posted during the entire handling operation.

i. Extra fire precautions will be taken, such as fire watch, when necessary.

j. Load/off-load ammunition at the ship as safely and as expeditiously as possible.

k. The Bravo flag will be flown during the ammunition handling operation.

l. Ammunition handling must be limited to that issued to or received from only one vessel alongside at a time.

m. Containers of ammunition or explosives will not be tumbled, dragged, thrown or dropped on each other, on the floor, or deck.

n. All ammunition or explosives not encased in a container will be suitably boxed, crated, or tanked prior to storage or handling.

o. At any time that the transfer of hazardous ordnance material is planned at a pier, all ships berthed at that pier will be alerted and all transient personnel will be restricted from the area.

PROCEDURE FOR AMMUNITION LOADING/OFF-LOADING

1. Request permission to handle explosives:

a. Commanding Officer of the Ship. Submit a Permission to Handle Explosives Request Form, NAVSHIPYD PTSMH 8023/1 (attachment (1) of this enclosure) to the Administrative Officer (Code 800), via the Ship Safety Officer (SSO), the Director of Occupational Safety and Health (Code 106), and the Portsmouth Naval Shipyard Weapons Office (Code 810.1). Vessels off-loading and on-loading service ammunition will comply with the provisions of Navy Regulations and all local directives.

b. Ship Safety Officer (SSO). Review the request and recommend approval/disapproval from an overall scheduling and safety standpoint.

c. Director of Occupational Safety and Health (Code 106). Review the request and recommend approval/disapproval. Upon final approval, ensure that all safety precautions are met and that the ship and Shipyard will not be placed in jeopardy. When deemed necessary, Code 106.2 may require all personnel involved to attend a briefing prior to commencing a particular AMHAZ operation.

d. Portsmouth Naval Shipyard Weapons Office (Code 810.1). Review the ship's request to ensure that the quantity of ammunition to be handled is within the explosive weight limits specified by AMHAZ NAVSHIPYD PTSMH waiver and indicate approval/disapproval. Coordinate all Shipyard efforts in the handling of ammunition.

e. Administrative Officer. Review request and indicate final approval/disapproval.

2. The Commanding Officer of the ship shall:

a. Prepare the Prerequisite List (PRL) (attachment (2) to this enclosure) up to and including the SSC concurrence of prerequisites (ship's SSC member).

b. Schedule the evolution with the Ship's Safety Officer (ship's SSC member).

c. Contact Weapons Office (Code 810.1), Ext. 2040/2041, to arrange ammunition movement.

d. Submit the PRL to Code 106 for on-site signature.

e. Recontact Code 330 (SSO), Code 106.2 and Code 810.1 when a rescheduling becomes necessary and make all necessary scheduling changes (ship's SSC member).

f. Verify that the requirements of the prerequisite list are completed (ship's SSC member).

3. Code 330 shall:

a. Contact all codes by teletype to advise evolution schedule or reschedule. Contact Code 810.1 by telephone to verify receipt of message.

b. Notify Code 972 to rope off and post the ammunition movement site. "No smoking" signs shall be on the barrier rope and "Ammunition on Board" signs shall be posted at the ship gangways within the roped off area.

4. The Weapons Office (Code 810.1) shall:

a. Arrange for adequate transportation and shall contact the Fire Department (Code 834) and provide ETA.

b. Notify the Police Department (Code 831) that the transporting truck requires an escort.

c. Notify Code 106.2 to dispatch a safety specialist to the site.

5. The Fire Department (Code 834) shall:

a. Dispatch a stand-by fire truck to the ammunition movement site to stand-by/inspect ammunition movement for fire safety conditions.

b. When requested by Weapons Officer (Code 810.1), escort ammunition truck whenever ammunition is being moved.

6. Code 106.2 shall assign a Safety Specialist to:

a. Inspect the movement site.

b. Ensure that the site has been properly prepared for the movement.

c. Sign off the PRL.

d. Remain on site until the ammunition movement commences.

7. The Weapons Office (Code 810.1) shall:

a. Insure that the certification of completed prerequisites is signed off by the Ship's Safety Council, prior to the ammunition movement.

b. Sign off the PRL, indicating final approval that the movement may commence.

c. Remain on site while ammunition is being handled or moved.

PERMISSION TO HANDLE EXPLOSIVES [illegible]EST
NAVSHIPYD-PTSMH-8023/1 (NEW 7-83)

FROM (COMMANDING OFFICER/OFFICER IN CHARGE)	LOCATION (BERTH/PIER)

Permission is requested to handle ammunition as follows. Ship's officers concerned are familiar with procedures and will directly supervi the handling at all times. All personnel supervising or performing handling operations are qualified and certified.

STARTING TIME AND DATE	EXPECTED TIME TO COMPLETE	NUMBER OF DELIVERIES	APPROXIMATE TOTAL WEIGHT

DESCRIPTION	QUANTITY
PYROTECHNICS	
SMALL ARMS	
OTHER (AMMUNITION FOR STRUCTURAL TESTS, TRAINING, SALUTING OR REPLENISHMENT) APPROVAL REQUIRED	

SIGNATURE	DATE

ACTION (TO BE COMPLETED BY SHIPYARD)

APPROVED YES	APPROVED NO	TO	SIGNATURE	DATE	REMARKS
		Ship Superintendent (SSS/SSO)			
		Dir. Occupational Safety & Health			
		Weapons Officer			
		Administrative Officer			

RETURN ORIGINAL TO ORIGINATOR

COPY TO: 106, 300, 400, 800, 810, 831, 832

Attachment (1) to
Enclosure (3)

PORTSMOUTH NAVAL SHIPYARD
PORTSMOUTH, NH 03801

EXPLOSIVES HANDLING PRERESUISITE LIST
NAVSHIPYD-PTSMH-8023/3 (NEW 7-83)

SAMPLE PREREQUISITE LIST (PRL)

SSC CONTROL NO._____

APPLICABLE SHIP_____

SCHED DATE_____

SCHED TIME_____

EVENT LOAD OFF_LOAD

APPROVAL OF PRL FOR HANDLING EXPLOSIVES

EVENT LISTED ON SPOD.

NAME: _____ DATE: _____
Ship's Force SSC Member

NAME: _____ DATE: _____
Ship's SSC Member (SSO)

PRL ITEMS COMPLETE/APPROVAL TO START LOAD/OFF-LOAD

NAME: _____ DATE: _____ TIME: _____
Ship's Force SSC Member

NAME: _____ DATE: _____ TIME: _____
SSO/SSS (Code 330)

NAME: _____ DATE: _____ TIME: _____
Safety Office Rep. Code 106.2

NAME: _____ DATE: _____ TIME: _____
Weapons Office Rep. Code 810.1

Attachment (2) to
Enclosure (3)

NAVSHIPYD-PTSMH-8023/3 (NEW 7-83) ACK)

PREREQUISITE LIST FOR LOADING OR OFF-LOADING AMMUNITION OR PYROTHECHNICS ABOARD SHIPS OR CRAFT AT PORTSMOUTH NAVAL SHIPYARD:

1. SHIP'S FORCE RESPONSIBILITY:

A. BRAVO FLAG FLOWN THROUGH-OUT HANDLING OPERATION. _____ (S/F)

B. WORD PASSED OVER 1MC THAT SMOKING LAMP IS OUT THROUGH-OUT THE SHIP. _____ (S/F)

C. NO BURNING, WELDING, OPEN FIRE OR OTHER WORK LIKELY TO PRODUCE SPARKS IS PERFORMED ON THE SHIP WHILE AMMUNITION IS BEING HANDLED. _____ (S/F)

D. NO WELDING CABLE OR GAS HOSE WITHIN 20 FEET OF THE EXPLOSIVES UNLESS THE CABLE IS SEPARATED FROM THE AMMUNITION BY A COMPARTMENT OR VOID SPACE. _____ (S/F)

E. NO FUEL, SLUDGE OR OTHER FLAMMABLE LIQUID BEING HANDLED DURING AMMUNITION MOVEMENT. _____ (S/F)

F. FIRE PROTECTION PRECAUTIONS TAKEN. FIRE WATCH PERSONNEL PROVIDED WITH FIRE EXTINGUISHERS AS APPROPRIATE. _____ (S/F)

G. ARRANGEMENTS MADE FOR EXPEDITIOUS LOAD/OFF-LOAD OF AMMUNITION WHILE MAINTAINING MINIMUM EXPOSURES OF UNBOXED ROUNDS. _____ (S/F)

H. SHIP'S HANDLING AND LOADING EQUIPMENT CERTIFIED. _____ (S/F)

I. SHIP'S PERSONNEL QUALIFIED AND CERTIFIED. _____ (S/F)

2. SHIPS SAFETY OFFICER (CODE 330) RESPONSIBILITY:

A. NO FUEL, GASOLINE, SLUDGE OR ANY OTHER FLAMMABLE LIQUID HANDLED WITHIN 500 FEET. _____ (330)

B. NO BURNING, WELDING OR OTHER WORK LIKELY TO PRODUCE SPARKS IS PERFORMED ON THE PIER WITHIN 500 FEET OF THE AMMUNITION BEING HANDLED. _____ (330)

C. NO BURNING, WELDING OR OTHER WORK LIKELY TO PRODUCE SPARKS IS PERFORMED ON OTHER SHIPS WITHIN 500 FEET OF THE AMMUNITION UNLESS THERE IS AT LEAST 100 FEET OF WATER INTERVENING. _____ (330)

D. NO EXPOSED OXYGEN OR ACETELYNE FLASKS WITHIN 100 FEET OF EXPLOSIVES. _____ (330)

E. AMMUNITION ON BOARD/NO SMOKING SIGNS ARE POSTED AT THE SHIPS GANGWAY OR AT BROWS. HANDLING AREA ROPED OFF AND SIGNS POSTED. _____ (972) _____ (330)

F. ALL HANDLING AND LOADING EQUIPMENT CERTIFIED. _____ (972)

G. ALL SHIPYARD PERSONNEL QUALIFIED AND CERTIFIED. _____ (972)/(330)

H. ALL QUANTITY DISTANCE REQUIREMENTS MET (CHECK WHEN APPLICABLE (106/810)). _____ (330)

DETECTION AND PREVENTION OF INCLUSION OF LIVE AMMUNITION OR EXPLOSIVES IN THE SHIPMENT OR RECEIPT OF EMPTY CARTRIDGE CASES, OR IN THE SALE OF SCRAP MATERIAL

1. Purpose. To provide instructions concerning the detection, prevention and disposal of live ammunition or explosives in shipment or receipt of empty cartridge cases or in the sale and shipment of scrap material.

2. Requirements. All cognizant department heads are directed to establish procedures to ensure increased precautions against the inclusion of live ammunition or explosives in empty cartridge cases or containers and scrap material shipped from the Shipyard.

3. Action

a. Department Heads concerned will assure that all appropriate personnel under their cognizance are indoctrinated in the hazards mentioned herein, as well as those contained in OPNAVINST 8023.2 in order to prevent the inclusion of explosives and dangerous items in shipments and sales of otherwise inert materials from the Shipyard.

b. All Shipyard personnel concerned with the receipt or handling of empty cartridge cases, containers or scrap material at any point within the Shipyard will be on the alert for the existence of live ammunition and explosives, and upon detection thereof, will immediately notify the Security Manager or Shipyard Watch Officer, giving name, location and telephone extension of individual concerned.

c. The Security Manager (Code 830) or Shipyard Watch Officer will investigate the incident and initiate the following disposal action:

(1) Insure a security force is posted to keep unauthorized personnel clear of the area.

(2) Contact Portsmouth Naval Shipyard Weapons Office (Code 810.1), Ext. 2040/2041, Beeper 807.

d. The Weapons Office will, as deemed necessary, request the services of an Explosive Ordnance Team from NAS, Brunswick, Maine, Autovon 476-2210/2301.

e. Ship and Shipyard personnel shall be instructed by appropriate authority to ensure that every precaution is taken to intercept any explosives from material turned in for scrap. Before transporting to the storage yard, crews shall carefully inspect the contents of scrap which might possibly be of an explosive nature.

PORTSMOUTH NAVAL SHIPYARD
PORTSMOUTH, NEW HAMPSHIRE
PROCESS INSTRUCTION

THIS DIRECTIVE CONTAINS (I) AND (V) REQUIREMENTS.

NO 3655-904-023A CH 2

EFFECTIVE DATE 27 Dec 1982

CANCELS None

CORRECTED

TITLE: GAS GENERATOR; HANDLING

ABBR TITLE GAS GENERATOR; HANDLING

SECTIONS:

1 METHOD	X
2 STANDARD	
3 QUAL CONT	X
4 QUAL ASSUR	X
5 TRAINING	X

RESP CODE 192.1

STANDING PROCESS INSTRUCTION. In effect at all times. Does not need to be invoked by job order.

THIS PROCESS INSTRUCTION DOES NOT AUTHORIZE THE PERFORMANCE OF WORK. USE ONLY WHEN INVOKED BY JOB ORDER.

STANDARD DISTRIBUTION:

NAVSHIPYD	CHASN	202 (3)
NAVSHIPYD	LBEACH	136 (2), 380
NAVSHIPYD	MARE	136
NAVSHIPYD	NORVA	136, 244.2, 380
NAVSHIPYD	PEARL	130, 202.32, 383
NAVSHIPYD	PHILA	202.11 (2)

133		236	303	956
136.1	231	238	330	970
136.2	232	239	383	1805.43 (2)
138	233	240	540	2300
138.5	234	244.1	920	NRRO
140	235	244.34	940	2302
191.03		244.4		TIC 10 (20)
202.123(20)		302		

SPECIAL DISTRIBUTION: See back of cover sheet.

TECHNICAL INFORMATION CENTERS

ADDITIONAL DISTRIBUTION:

ACTION:

106	330 (3)	831	972 (3)
190	333	834 (3)	WEC (3)
192.1 (10)	400	906/99 (3)	
193 (3)	452 (3)	938 (3)	
194 (3)	800	956 (3)	
195 (3)	810 (3)	964 (3)	
300	830 (3)	970	

INFO

180
212
230
234
700

NAVSEA APPROVAL LETTER:

Not Required.

APPROVED J. E. Hadwen
OFFICE/DIVISION HEAD

DATE 30 Dec 1982

4ND-PTSMH-5215/1 (REV 9-80)

FOR OFFICIAL USE ONLY

PORTSMOUTH NAVAL SHIPYARD

PROCESS INSTRUCTION 3655-904-023A CH 2

1. Purpose.

a. Change Process Instruction requirements for gas generator handling equipment testing to comply with NAVSEA OP 5 VOL 1 REV 4 CH 9, Ammunition and Explosives ashore.

2. Action.

a. Make the following pen and ink change to paragraph (1.2.11.1):

Change "within six months of use" to "yearly".

b. Replace existing cover sheet with this cover sheet.

SPECIAL DISTRIBUTION:

EACH NAVAL SHIPYARD (CODE 383) (2)

CO AS-11	CO AS-33
CO AS-18	CO AS-34
CO AS-19	CO AS-36
CO AS-31	CO AS-37
CO AS-32	CO AS-39
	CO AS-40

NAVSES 06 (2)
062 (2)
064 (2)

GAS GENERATOR; HANDLING

Encl: (1.2.11) Gas Generator Handling Gear Components
(1.3.25) Prerequisite and Check Off List for Onloading Gas Generators
(4.1) Audit Plan
(4.2) Technical Directive Concurrence Form NAVSHIPYD-PTSMH-5215/4
(4.3) Technical Directive Change Recommendation, Form NAVSHIPYD-PTSMH-5215/9

PURPOSE

To establish general procedures for use by the Planning & Estimating Division (P&E) in preparing job orders, and by the Production Department shops and codes in accomplishing the installation or removal of MK 50 MOD 0 and MK 68 MOD 0 Gas Generators.

SCOPE

This Process Instruction deals with Gas Generator Handling. It provides the supervisors and personnel (civilian and military) with a common understanding of procedures and policies involving explosive material, explosive ordnance, or explosive devices as cited.

SECTIONS

1 Method. The following is an index by paragraphs:

INDEX

PARA	OPERATION
1.1	Environmental Requirements and Safety Warnings
1.2	Advance Preparation for Shipment/Installation
1.3	Responsibilities
1.4	Gas Generator Handling

1.1 Environmental Requirements and Safety Warnings

1.1.1 The safety precautions found in this document and associated references must be understood and adhered to. An unfired Gas Generator is a Class II fire hazard and must be treated as a Class B explosive. It must be handled as an ordnance component and with extreme caution at all times. The principal hazard associated with this class of explosive is its involvement in a fire. The principal cause of damage to the Gas Generator is improper handling and installation.

1.1.2 The temperature of stored or in-transit gas generators must be within the range of 0° - $100^{o}F$. Exposure to temperatures outside this range is limited to one hour. If this limit is exceeded, the gas generator must be rejected for use. All details of exposure must be reported to the Fleet Ballastic Missile (FBM) Project Officer, Code 190.

1.1.3 Code 810 is responsible for receiving and storing gas generators in the Shipyard until they leave the ammunition storage area (bunkers) for installation on the ship as required by NAVSHIPYD PTSMH INST 8023.1F.

1.1.4 Local Westinghouse representatives shall monitor and verify that temperature requirements are met on arrival in the Shipyard and on removal from the bunkers for installation aboard ship.

1.1.5 Approximate weights of live Gas Generators are:

Gas Generator with accessory and container ----------	1250 lbs
Gas Generator with thrust neutralizer and handling cover ----------	950 lbs
Gas Generator without thrust neutralizer and handling cover ----------	800 lbs
Expended (fired) Gas Generator without thrust neutralizer and handling cover ----------	660 lbs

1.1.6 All warning and safety precautions shall be observed in the transporting, handling, and loading gas generators.

1.1.7 Matches or lighters shall not be carried by personnel handling gas generators. During Gas Generator Loading, smoking is not permitted in the AMR-1, the missile compartment, topside, in the pier handling area, or within 100 feet of any unfired Gas Generator.

1.1.8 No radio transmitter capable of radiating five watts or more of energy may be operated within 25 feet of an unfired gas generator or within the pier handling area. Radio transmitters in the transport and escort vehicles shall be secured. Portable walkie-talkies on the KENNARD network may be used if they are five feet or more from the gas generators.

1.1.9 Movement of gasoline or other fuels in bulk or in drums will not be permitted at the same pier while gas generators are being handled.

1.1.10 Handling of gas generators will only take place after the Fire Department has been properly notified and placed in a standby status and the required security personnel are on scene.

1.1.11 Loading and unloading shall normally take place during daylight hours. When night operations are required, only approved electric lights, portable electric lanterns, or flashlights shall be used. Adequate pier lighting to provide for safe, efficient operation shall be available.

1.1.12 Two fire hoses must be available in the handling area. Pressure shall be applied up to the last valve before the hose.

1.1.13 The gas generator is an ordnance material. Handle it the same as an explosive.

1.1.14 Do not stack gas generators in their containers (fired or unfired) more than two high. Prior to handling stacked shipping containers, secure shipping container support together using two MS90725-185 bolts, two MS21304-7 nuts, and two MS27183-24 washers installed at diagonally opposite corners. Do not push, tow, or drag crated gas generators.

1.1.15 Adhere to specified gas generator storage temperatures.

1.1.16 The thrust neutralizer assembly shall remain attached until gas generator is ready for immediate installation in launching system.

1.1.17 No checks of gas generator ignition system shall be made.

1.1.18 The crated gas generator (fired or unfired) shall be transported with equipment capable of safely lifting a minimum of 1250 pounds when handling one crated gas generator, o 2500 pounds when handling two crated gas generators.

1.1.19 Do not weld, braze, solder, or apply any heat, other than temperature conditioning, to the gas generator.

1.1.20 No disassembly of unfired gas generator is permitted during packing, handling and shipping.

1.1.21 Do not perform machining, welding, brazing, soldering, or similar operations to any component of the gas generator (fired or unfired) or the shipping container unless it has previously been subjected to an authorized cleaning process.

1.2 Advance Preparation for Shipment/Installation. Code 190, W/CTR 1901.

1.2.1 Request the Administrative Officer, Code 800, to release the gas generators from the bunkers.

1.2.2 Request the Fire Protection Branch, Code 834, to be in a stand-by status at the fire station until topside loading evolution is complete.

1.2.3 Request the Shipyard Security Manager, Code 830, to:

1.2.3.1 Provide security personnel to escort the transporting vehicle from the bunkers to the pier handling area and stand by to prevent personnel not involved with loading gas generators from entering the area until loading evolution is complete.

1.2.3.2 Provide personnel involved with loading gas generators with distinctive armbands, so they can be easily recognized. Code 830 is responsible for the issue and return of armbands. Code 192.1 will provide the armbands and a list of those certified personnel elegible to receive them.

1.2.3.3 Provide personnel to restrict access to missile compartment until gas generator loading is complete.

1.2.4 Request that the Public Works Officer, Code 452, ensure that no flammable liquids will be handled in the area while gas generators are being loaded.

1.2.5 Request the Repair Officer, Code 330, to:

1.2.5.1 Ensure that no welding or burning operations are permitted topside, in AMR #1, missile compartment, or within 100 feet of the handling area on the pier. No topside welding or burning is permitted on any ship within 100 feet of the convoy route during passage of loaded convoy.

1.2.5.2 Ensure that no flame, heat, or spark-producing devices are permitted where explosives are located; cigarette lighters, heaters, fires, welding tools, soldering irons, cutting torches and uncovered lights are included in this category. Emergency work requiring the use of flame, heat or spark-producing devices must be cleared with the Safety Loading Officer. In spaces adjacent to and on the same level as (and sharing a bulkhead with) an explosive area, hot work may be performed on the far bulkhead, on the overhead, deck or bulkhead at locations a minimum of five feet from the shared structural or non-structural bulkhead. In spaces below the explosive area, hot work may be performed on the deck or bulkheads at locations no less than five feet from the overhead. No hot work is permitted in the spaces above an explosive area. In the case of other spaces in the vicinity of the explosive area, hot work may be performed unless so doing violates the rules previously defined when both sides of the bulkhead, deck or overhead on which the hot work is to be performed are considered. Hot work (welding and burning) is permitted in the missile compartment and AMR #1 upon completion of gas generator installation.

1.2.5.3 Ensure that two fire hoses, with pressure to the last valve before ths hoses, are available in the pier handling area.

1.2.6 Ensure that the Commanding Officer of ship is notified of the intention to load gas generators and of Ship's Force responsibilities.

1.2.7 Ensure that the Shipyard Safety Manager, Code 106.2, is notified when gas generators will be handled.

1.2.8 Ensure that the Transportation Superintendent, Code 452, has been notified two days prior to handling of gas generators, that a truck capable of carrying the required number of gas generators will be available. The truck must be inspected and certified using Form DD626. Four placards, (Explosive B) are required - one on each side, one on the front, and one on the rear. Placards shall be a diamond with horizontal wording. Vehicle must be equipped with at least two 15 pound CO_2 fire extinguishers located at convenient points on the vehicle. Extinguishers will be weighed and checked prior to dispatching the vehicle.

1.2.9 Ensure that Code 906/99 has been notified to rope off the pier handling area within the "Explosive Safety Quantity Distance," 100 feet for eight or more gas generators and 75 feet for seven or less, to post "No Smoking" signs on the perimeter, to post "Explosive Handling Area, Authorized Personnel Only" signs, and to provide flashing red lights as requested by the Ship's Safety Loading Officer.

1.2.10 Ensure that Code 964 has provided a working platform for removing gas generators from the containers.

1.2.11 Ensure that gas generator handling gear listed in enclosure (1.2.11) has been tested and certified ready-for-use as follows:

1.2.11.1 Slings, pendants, and other related weapons handling equipment must be tested ~~within six months of use.~~ yearly (Ch-2)

1.2.11.2 Mechanical endings must have a minimum breaking strength equal to the catalog operating strength of the wire rope from which they are made.

1.2.11.3 All hooks must be of a safety type or moused. No open hooks shall be permitted.

1.2.11.4 If portable crane is used, it shall be equipped with a grounding strap.

1.2.11.5 All handling gear shall be positively identified and serialized. Washers or label plates shall be fastened to each piece of gear and shall be engraved with the following information:

Safe Working Load (SWL):
Test Load (2XSWL):
Serial Number:
Date:
By: PNSY

1.2.12 Ensure that the applicable portions of the Test Procedure B2-36-01 or C3-36-01, Gas Generator and MARDAN Handling Gear Strength and Operation, are complete.

1.2.13 Designate a qualified and certified officer or civilian as Safety Loading Officer and provide him with assistants as required. Assign personnel in the upper and lower level of the missile compartment as Assistant Safety Loading Officers responsible to the Safety Loading Officer.

1.3 Responsibilities.

NOTICE

All shops shall provide personnel for gas generator loading who are certified as qualified to perform functions assigned that shop.

1.3.1 Code 810.1. Receive and store gas generators in the Shipyard until they leave the ammunition storage area (bunkers) for installation on a ship in accordance with NAVSHIPYD PTSMH INST 8023.1F.

1.3.2 Code 810.1. Operate, maintain safety, security, and monitor temperature in the ammunition storage area. Make daily temperature charts available to Code 190 for verification. Notify Code 190 when the 0° - $100^{o}F$ temperature range is exceeded for more than one hour.

1.3.3 Code 106.2. Monitor all gas generator loading evolutions for safety.

1.3.4 Code 834, W/CTR 8201. Maintain the necessary fire equipment in a stand-by status at the fire station during transporting and loading operations.

1.3.5 Code 830, W/CTR 8301. Provide a security escort from the bunkers to the pier handling area and stand by during the loading evolution until released by the Safety Loading Officer.

1.3.6 Codes 300, 452, 830, and 834. Secure all communication equipment capable of radiating five watts of electromagnetic energy within 25 feet of the pier handling area. Portable walkie talkies on KENNARD Network must be more than five feet from the gas generators at all times.

1.3.7 W/CTR 9902. Rope off the pier handling area using 3/4 inch wide black on red barrier tape available through Shop Stores 56, Bldg 178, at the "Explosive Safety Quantity Distance," 100 feet for eight or more gas generators and 75 feet for seven or less.

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1.2.12 Ensure that the applicable portions of the Test Procedure B2-36-01 or C3-36-01, Gas Generator and MARDAN Handling Gear Strength and Operation, are complete.

1.2.13 Designate a qualified and certified officer or civilian as Safety Loading Officer and provide him with assistants as required. Assign personnel in the upper and lower level of the missile compartment as Assistant Safety Loading Officers responsible to the Safety Loading Officer.

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* 1.3.7 W/CTR 9902. Rope off the "Gas Generator Handling Area" using 3/4 inch wide black-on-red barrier tape as specified in paragraph 1.3.28.

1.3.8 W/CTR 9902. Post "No Smoking" signs on the perimeter, post "Explosive Handling Area, Authorized Personnel Only" signs, and provide flashing red lights as designated by the Ship's Safety Loading Officer.

1.3.9 Code 452, W/CTR 0201. Secure fueling operations by Government vehicles in the area where gas generators are being loaded.

1.3.10 Code 331. Ensure that no welding or burning operations are permitted topside, AMR #1, missile compartment or within 100 feet of the handling area on the pier. No topside welding or burning is permitted on any ship within 100 feet of the convoy route during the passing of a loaded convoy. If welding or burning is required in areas adjacent to the missile compartment or AMR #1, follow instruction of paragraph 1.2.5.

1.3.11 Code 331. Ensure that two fire hoses, with pressure to the last valve before the hoses, are available in the pier handling area. (Follow instructions of paragraph 1.2.5).

1.3.12 Code 452, W/CTR 0201. Provide a properly equipped and inspected truck or tractor and flat bed, crane, and operators.

1.3.13 Code 570.01. Provide fork lift (low boom type) (gas, diesel, or electric) certified in accordance with paragraph 1.7 of Process Instruction 3950-909-591.

1.3.14 All Shops. Provide personnel for gas generator loading who are certified as qualified to perform functions assigned that shop. Personnel involved in actual gas generator loading must be certified and have attended a briefing conducted by Code 190. Certification, unless revoked for cause, shall be valid for a maximum of 12 months.

1.3.15 Ship's Force. Secure all electromagnetic radiation sources capable of producing five watts or more radiation.

1.3.16 Ship's Force. All Ship's Force (S.F.) personnel involved in gas generator handling shall be briefed in Fleet Ballistic Weapons System Standard Operating Procedures (WP) which apply to gas generator handling, loading and off-loading. WP 100, 110, 111, 121, 180, OP 3738, 4578 and OD 13926 are the applicable procedures.

1.3.17 Ship's Force. Make ship's damage control equipment for fire fighting available during loading operations.

1.3.18 Ship's Force. Provide Ship's tools and equipment necessary to handle and load gas generators.

1.3.19 Ship's Force. Hoist a red flag (Bravo) on signal halyard during loading operation.

1.3.20 Ship's Force. Assume responsibility for control of gas generators upon installation of the gas generator on the cooling chamber with the clamp ring installed and torqued. Continue loading operations beginning at step eight, Part III of WP 110.

1.3.21 W/CTR 1901. The Qualification and Certification Board will conduct training in accordance with TIMS 98-206-A1 to certify all members of the handling team. The cognizant Weapons System Division will be responsible for briefing the handling team prior to each loading and ensuring that the procedures are fully understood.

1.3.22 W/CTR 1901. Supervise and coordinate the gas generator loading evolution from the time the gas generators leave the bunkers until the generator installation is turned over to Ship's Force as defined in paragraph 1.3.20. Westinghouse Electric Corporation (WEC) shall provide technical support throughout the entire handling operation.

1.3.23 W/CTR 1901. Ensure that the gas generator loading evolution is on the Ship Plan of Day (SPOD) as required by NAVSEA 0905-485-6010, paragraphs 3.3, 3.3.2.1, 4.2.2 and 4.6.

1.3.24 W/CTR 1901. Make the equipment listed in enclosure (1.2.11) available at the work site. The air hoists, trolleys, and chain block hoist must be on the ship, certified, and in operating condition when the gas generators arrive at the work area.

1.3.25 W/CTR 1901. Collect concurrence signatures to all items on the prerequisite list, enclosure (1.3.25), the day before loading.

1.3.26 W/CTR 1901. Travel the convoy route with Shop 02 and Security personnel the day before loading to ensure the route will be passable. Parking may have to be restricted to allow passage of the convoy.

NOTE: It may be necessary to verify the passibility of the route just prior to loading.

1.3.27 W/CTR 1901. The Safety Loading Officer or designated assistant will observe the loading of gas generators to prevent unsafe practices. He shall have the authority to stop the loading of gas generators. Any disagreement involving the loading or storing of gas generators and disagreements involving the Ship's personnel, Shipyard personnel, and contractors engaged in the operation, shall be brought to his attention. Code 190 will assign personnel in the upper and lower level of the missile compartment as Assistant Safety Loading Officers responsible to the Safety Loading Officer.

* 1.3.28 W/CTR 1901. A "Gas Generator Handling Area" will be established. Routine work in this area will not be allowed during the loading evolution. Security personnel and the Safety Loading Officer shall be responsible for preventing personnel not involved with loading gas generators from entering the area. The perimeter of the "Gas Generator Handling Area" will be 3/4 inch, black-on-red barrier tape and "Explosive Handling Area, Authorized Personnel Only" signs. Barriers will be located on the pier at the "Explosive Safety Quantity Distance", 100 feet for eight or more gas generators and 75 feet for seven or less, measured from the working platform for removing the submarine so as to restrict access to the area of the AMR#1 hatch. Below decks, barriers shall be erected at the aft entrance to the upper level of the AMR#1 and at all forward entrances to the missile compartment. After the last gas generator is in the missile compartment, the pier and topside barriers shall be removed and the aft, below-decks barrier in the AMR#1 shall be moved to the aft entrances to the missile compartment. The below-decks barriers shall be removed when the last gas generator is turned over to Ship's Force. Should non-certified personnel be required for emergency entrance to the "Gas Generator Handling Area", the Safety Loading Officer shall determine if the requirement is justified and provide continuous escort of the non-certified personnel while in the handling area.

1.3.29 W/CTR 1901. Allow Ship's Duty Officer, Topside Watch, and Below Decks Watch access to the missile compartment and AMR #1 areas for conducting business under the responsibility of the Ship's Commanding Officer.

1.4 Gas Generator Handling

1.4.1 W/CTR 1901. Request Code 810 unlock bunkers and release gas generators to the Production Department. Arrange for all necessary personnel and equipment to be at the bunkers. Verify that the daily temperature charts have not exceeded the 0° - 100°F temperature range for more than one hour before removing gas generators from the bunkers.

1.4.2 W/CTR 0201. Provide an inspected and certified truck, with driver, capable of carrying the required number of gas generators from the bunkers to the pier handling area.

1.4.3 W/CTR 7201. Load gas generators on truck. Secure gas generators to fork lift during loading. Do not stack more than one high. Secure gas generators to flat bed using rope or chain binders.

1.4.4 W/CTR 0201. Transport the gas generators to the pier handling area in convoy.

1.4.5 Code 831. Provide Security personnel and a vehicle to escort the transporting vehicle from the bunkers to the pier handling area and to stand by, until released by the Safety Loading Officer, to prevent personnel not involved with loading gas generators from entering the area.

1.4.6 Code 834. Provide fire equipment to stand by at the fire station during the loading evolution.

1.4.7 W/CTR 6401. Provide a working platform for removing gas generators from the container per Code 190 instructions.

1.4.8 W/CTR 7201. Off-load gas generators onto pier. Place shipping container in vertical position with top cover in up position.

1.4.9 W/CTR 3801. Remove the top cover from the gas generator container.

1.4.10 W/CTR 3801. Remove cotter pins, safety clips, and beam clamp from shipping container.

1.4.11 W/CTR 3801. Remove insulation covering the end of gas generator. Save the insulation for reuse.

1.4.12 W/CTR 3801. Loosen two cap screws at support clamp segment joints and remove self-locking cap screws securing support clamp to support brackets. Remove support clamp. Remove four spacers from support brackets.

1.4.13 W/CTR 7201. Attach crane to handling cover and carefully remove gas generator from the container.

1.4.14 W/CTR 3801. Loosen two cap screws at lower strap segment joints and remove strap from gas generator. DO NOT remove plastic protective rings at this time.

1.4.15 W/CTR 3801. Ensure thrust neutralizer is in place and tightened securely.

1.4.16 W/CTR 3801. Visually inspect nozzle diaphragm to ensure that it was not damaged during shipping or handling. If damaged, notify Safety Loading Officer or Westinghouse (WEC). Apply tape over the words, "WARNING EXPLOSIVES" on the container as directed by WEC.

1.4.17 Ship's Force. Open hatches of the missile tubes receiving gas generators, and notify the Safety Loading Officer that the Ship is ready to receive gas generators.

1.4.18 W/CTR 7201. Lower the gas generator through the AMR #1 hatch but do not land on deck.

1.4.19 W/CTR 7201. Position the transfer rail chain block hoist to aft end of rail and attach to lifting pad on gas generator.

1.4.20 W/CTR 7201. Operate chain block hoist to transfer gas generator from crane to hoist. Remove crane cable.

CAUTION

DURING GAS GENERATOR TRANSFER FROM HOIST TO HOIST, USE EXTREME CARE TO PREVENT CONTACT BETWEEN THE GAS GENERATOR AND ANY PART OF THE SHIP.

1.4.21 W/CTR 7201. Move the chain fall and gas generator to forward end of transfer rail and transfer gas generator to the air hoist.

1.4.22 W/CTR 7201. Move the gas generator to either port or starboard deck opening.

1.4.23 W/CTR 7201. Lower the gas generator to MCLL, positioning as necessary to permit unobstructed passage through deck openings.

1.4.24 W/CTR 7201. Insert a nylon sling through the thrust neutralizer and attach to handling rail hoist. Attach other handling rail hoist to horizontal lifting eye on handling cover. Transfer gas generator to a horizontal position on handling rail hoist. On the starboard side, thrust neutralizer faces aft. On the port side, thrust neutralizer faces forward.

NOTE

WHEN TRANSFERRING GAS GENERATOR TO A HORIZONTAL POSITION ON HANDLING RAIL HOISTS, THRUST NEUTRALIZER MUST FACE AFT FOR STARBOARD SIDE INSTALLATION AND FORWARD FOR PORT SIDE INSTALLATION TO CLEAR MISSILE TUBE WHEN HOISTED TO A VERTICAL POSITION FOR INSTALLATION IN ACCORDANCE WITH APPLICABLE BUSHIPS DRAWING SSBN 623-250-2005556 REV F.

1.4.25 W/CTR 7201. Move gas generator to position outboard of applicable missile tube.

1.4.26 Ship's Force. Assist Shops 38 and 72 during the installation of gas generators.

1.4.27 W/CTR 3801. Remove safety cover and, if installed, the stand-pipe holddown tool. Remove sight glass safety cover and cooling chamber vent plug. Ensure that the top inner surface of cooling chamber is in good condition. Verify cooling chamber is filled to vent port level and place a temporary protective cover over cooling chamber.

WARNING

DO NOT WELD, BRAZE, SOLDER OR APPLY HEAT TO GAS GENERATOR OR OTHER EJECTOR GROUP COMPONENTS WHEN GAS GENERATOR IS INSTALLED.

1.4.28 W/CTR 3801. Visually inspect the nozzle diaphragm for physical integrity.

1.4.29 W/CTR 7201. Transfer to a vertical position, using a 1,000-pound-capacity chain hoist attached to padeye welded to upper level deck above cooling chamber, and position over cooling chamber. Remove nylon sling from the thrust neutralizer.

1.4.30 W/CTR 3801. Verify gas generator pressure plug is in place and torqued by applying 50 ± 10 foot-pounds.

1.4.31 Westinghouse and Ship's Force. Record gas generator serial number in the respective work logs.

1.4.32 W/CTR 3801. Remove the lower protector ring.

1.4.33 W/CTR 3801. Apply silicone lubricant, 71984DC55M, to new O-ring 2244739-2, O-ring groove, and adjoining areas. Install O-ring.

1.4.34 W/CTR 3801. Remove the thrust neutralizer plate (spike) and spacers from the thrust neutralizer adapter.

NOTE

GAS GENERATOR MUST NOW BE MATED
AND BOLTED TO THE COOLING CHAMBER
AS SOON AS POSSIBLE.

1.4.35 W/CTR 3801. Coat the thrust neutralizer adapter bolt hoses with antiseize compound, 84180LP250.

1.4.36 W/CTR 3801. Remove temporary cover from the cooling chamber.

1.4.37 W/CTR 7201. Lower the gas generator slowly into place, holding in a plumb position to prevent damage to the O-ring as gas generator mates with cooling chamber.

1.4.38 W/CTR 7201. Orient the gas generator to cooling chamber by match marks scribed on side of assemblies at 135°.

1.4.39 W/CTR 3801. Mate the vertical index pin in bottom of gas generator to slot in stand-pipe upper flange and vertical pin on opposite side of stand-pipe upper flange to hole in gas generator.

1.4.40 W/CTR 3801. Remove hoist and upper protective ring.

1.4.41 W/CTR 3801. Install the clamp ring using the clamp ring handle assemblies.

1.4.42 W/CTR 3801. Lubricate bolts with antiseize compound, 84180LP 250. Apply a thin coat of molybdenum disulfide, MIL-M-7866, to mating spherical surfaces of washer and clamp ring. Install bolts and torque to 180 ± 10 foot-pounds.

NOTE

INSTALL A VENT PORT PLUG AND VENT PLUG O-RING 2244739-1 (LUBRICATED WITH 71984DC55M) IN THE COOLING CHAMBER EXTENSION RING, IF A LEAK TEST IS NOT IMMEDIATELY SCHEDULED.

WARNING

DO NOT WELD, BRAZE, SOLDER OR APPLY HEAT TO GAS GENERATOR OR OTHER EJECTOR GROUP COMPONENTS WHEN GAS GENERATOR IS INSTALLED.

1.4.43 W/CTR 1901. Inform Fire Protection Branch and Shipyard Security Manager that the gas generator loading is complete.

1.4.44 Ship's Force. Continue gas generator installation in accordance with WP 110, Part III, step 8 onward. Alarm monitoring units are to be installed and remain installed until WP 181 is completed.

1.5 Tools and Equipment Required

Normal complement of tools of the trade
Torque Wrench, 0-250 ft-lbs, 1/2" Drive
Socket, Heavy Wall, 13/16 12 point, 1/2" Drive
Torque Wrench, 0-150 in-lbs, 3/8" Drive
Plywood Disc, 3/8" or 1/2" thick x 21" dia (2 ea)
Air Hose, 50 ft, with 3/8-18 male pipe thread, one end
Soap/Water Solution (Gas Generator Leak Test)
Water Hose/Water (to complete filling Cooling Chamber)
3/8" and 1/2" Drive ratchet Wrench
1/2" Drive, 10" extension
1/2" Drive, 7/16" Socket
1/2" Drive, 1" Socket
1/2" Drive, 1 1/8" Socket
1/2" Drive, 1-3/16" Socket
3/8" Drive, 7/32" Hex Bit
3/8" Drive, 1/4" Hex Bit
3/8" Drive, 5/16" Hex Bit
1/2" Drive 5/8" Hex Bit
3/8" and 7/16" Open End Wrench
3/4" and 13/16" Open End Wrench
1/2" Female to 3/8" Male Adapter
1" and 1 1/8" Open End Wrench
#1 and #2 Phillips Screwdrivers

1.6 Material

Silicone lubricant, 71984DC55M, Stock No. 4PS1440-LE-W00-2374
Antiseize compound, 84180LP250, Stock No. 4PM1440-LE-W00-2388
Molybdenum disulfide, MIL-M-7866, Stock No. 9G6810-00-816-1025

2 Standards. None.

3 Quality Control, All Codes and Shops.

3.1 Supervisors are responsible for controlling and assuring the quality of work performed by those under their supervision in accordance with PRODEPT INST 12130.3.

3.2 Personnel who are required to perform work during gas generator loading shall be certified by the Qualification and Certification Board and records shall be retained for four years.

3.3 Handling gear shall be certified in accordance with test procedure B2-36-01 or C3-36-01.

4 Quality Assurance

4.1 Enclosure (4.1) is an audit plan that can be used by authors and users to verify conformance with the requirements of this instruction.

4.2 Portsmouth Form 5215/4, enclosure (4.2) on which individual offices indicate concurrence with the content of this directive by signature in the appropriate blocks.

4.3 Specific recommendations for changes in this instruction should be forwarded to Code 192.1, using a Technical Directive Change Recommendation Form, NAVSHIPYD-PTSMH-5215/9, enclosure (4.3). Code 192.1 will incorporate any appropriate recommendations for changes in any revision required before or during the triennial review of this instruction.

5 Training. Supervisors. Ensure personnel who perform work covered by this instruction are familiar with its technical requirements and methods. TIMS 58-206-A1 contains the initial training plan for this instruction.

Enclosure (1.2.11)

GAS GENERATOR HANDLING GEAR COMPONENTS

ITEM	DWG#	PC#	SER#	TESTING ACTIVITY	LENGTH
Wire Rope Type Pendant	NA	NA	192-01	PNSY	15'
Wire Rope Type Pendant	NA	NA	192-02	PNSY	15'
Wire Rope Type Pendant	NA	NA	192-03	PNSY	15'
Wire Rope Type Pendant	NA	NA	192-04	PNSY	15'
Return Eye Type Sling	2119492	15	192-05	PNSY	40"
Return Eye Type Sling	2119492	15	192-06	PNSY	40"
Wire Rope Type Sling	2119492	10	192-07	PNSY	5'9"
Wire Rope Type Sling	2119492	10	192-08	PNSY	5'9"
Wire Rope Type Sling	2119492	10	192-09	PNSY	5'9"
Wire Rope Type Sling	2119492	10	192-10	PNSY	5'9"
Wire Rope Type Sling	2119492	10	192-11	PNSY	5'9"
Wire Rope Type Sling	2119492	10	192-12	PNSY	5'9"
Wire Rope Type Sling	2119492	16	192-13	PNSY	24"
Wire Rope Type Sling	2119492	16	192-14	PNSY	24"
Wire Rope Type Sling	2119492	16	192-15	PNSY	24"
Wire Rope Type Sling	2119492	16	192-16	PNSY	24"
Wire Rope Type Sling	2119492	16	192-17	PNSY	24"
Wire Rope Type Sling	2119492	16	192-18	PNSY	24"
Chain Block Hoist	2119492	11	192-19	PNSY	NA
Chain Block Hoist	2119492	11	192-20	PNSY	NA
Chain Block Hoist	2119492	11	192-21	PNSY	NA

Chain Block Hoist	2119492	11	192-22	PNSY	NA
Chain Block Hoist	2119492	11	192-23	PNSY	NA
Chain Block Hoist	2119492	11	192-24	PNSY	NA
Chain Block Hoist	2119492	11	192-25	PNSY	NA
Sling Link	2119492	9	192-26	PNSY	NA
Sling Link	2119492	9	192-27	PNSY	NA
Sling Link	2119492	9	192-28	PNSY	NA
Sling Link	2119492	9	192-29	PNSY	NA
Sling Link	2119492	9	192-30	PNSY	NA
Sling Link	2119492	9	192-31	PNSY	NA
Air Hoist	2005555	1	192-32	PNSY	NA
Air Hoist	2005555	1	192-33	PNSY	NA
Port Trolley No. 1	2119492	12	192-34	PNSY	NA
Port Trolley No. 2	2119492	12	192-35	PNSY	NA
Stbd Trolley No. 1	2119492	12	192-36	PNSY	NA
Stbd Trolley No. 2	2119492	12	192-37	PNSY	NA
Shackle 3/4"	NA	NA	192-38	PNSY	NA
Shackle 3/4"	NA	NA	192-39	PNSY	NA
Shackle 3/4"	NA	NA	192-40	PNSY	NA
Shackle 3/4"	NA	NA	192-41	PNSY	NA
Shackle 3/4"	NA	NA	192-42	PNSY	NA
Shackle 3/4"	NA	NA	192-43	PNSY	NA

PREREQUISITE AND CHECK OFF LIST
FOR ONLOADING GAS GENERATORS

USS (SSBN)

JTG APPROVAL:

_____
Ship's Force

_____
CTE-W

SSC APPROVAL:

_____
Ship's Force

_____
SSO

All prerequisite items complete and signed for prior to start of evolution.

_____
CTE-W

NOTE:

A SIGNATURE ON THIS LIST INDICATES THAT THE PREREQUISITE ITEMS ARE COMPLETE OR THAT THE SIGNEE UNDERSTANDS AND ACCEPTS THE RESPONSIBILITY FOR THE ITEM AT THE TIME THE EVOLUTION OCCURS.

SECTION I

1. A briefing was conducted to ensure that all members of handling team are familiar with safety hazards involved and with their responsibilities during gas generator handling.

_____
Code 190

2. The Gas Generator Handling Qualification and Certification Board has certified personnel necessary to handle gas generators.

_____
Code 190

3. Test B2-36-01 or C3-36-01 has been completed and handling gear is certified.

_____
Code 190

_____
Code 972

4. Code 800 personnel were notified as to the time and date to be at the bunkers to release the gas generators for transporting to the ship.

_____
Code 800

5. All communication equipment capable of radiating 5 watts of electromagnetic energy in pier handling area and ship (except walkie-talkies on KENNARD Network) will be secured.

_____
Code 834

_____
Code 831

_____
Code 452

_____
Ship's Force

6. Fueling operations by Government vehicles will be secured in the area throughout the gas generator handling evolution. Code 452 will initial this item.

_____
Code 452

7. No burning or welding operations will be permitted on the pier, topside of ship, or areas other than those defined in paragraph 1.2.5 of the Gas Generator Handling Procedure throughout the gas generator onloading evolution.

_____
Ship Superintendent

8. Two fire hoses, with pressure to the last valve before the nozzle, will be available in the gas generator handling area throughout the onloading evolution.

_____
Ship Superintendent

9. Fire equipment will be in a stand-by status at the fire station throughout the gas generator onloading evolution.

_____
Code 834

10. Security guards will be standing by throughout the gas generator onloading evolution and control access until released by the Safety Loading Officer.

_____
Code 831

11. Fire fighting equipment will be available onboard ship throughout the gas generator onloading evolution.

_____
CO

12. Ship's Force personnel involved in gas generator handling have been briefed in FBMWS Standard Operating Handling (WP 100, WP 110, WP 111, WP 121, WP 181) Procedures.

_____
CO

13. Code 106.2 personnel will be on site to monitor the gas generator handling evolution.

_____
Code 106.2

14. Personnel assigned to the evolution of transporting, handling, and loading gas generators are certified to perform their duties.

_____
Code 452

_____
Code 938

_____
Code 972

15. The gas generator handling evolution will be on the Ship Plan of Day (SPOD).

_____
SSO

SECTION II

The following items were checked prior to start of gas generator evolution and found to be complete:

1. Security guards and an escort vehicle are available.

2. A properly equipped fire truck is in a stand-by status at the fire station.

3. A properly inspected and certified fork lift is provided.

* 4. The pier handling area is roped off at the Explosive Safety Quantity Distance, "No Smoking" signs posted, "EXPLOSIVE HANDLING AREA, AUTHORIZED PERSONNEL ONLY" signs posted, and two flashing red lights are installed. Barriers are installed topside, forward and aft of the AMR#1 hatch and below-decks at the aft entrace to the AMR#1 and at all forward entrances to the missile compartment.

5. No flame, heat or spark-producing devices are being used in the explosive handling area.

6. All communication equipment in the transport and escort vehicles is secured.

7. Two fire hoses with pressure up to the last valve before the hose.

8. All tools and equipment required are tested and certified and are ready for use at the work area.

9. The gas generator handling evolution is on the Ship's Plan of the Day (SPOD).

10. A red flag (BRAVO) is hoisted from the signal halyard.

11. A list of personnel, who are certified as qualified to perform functions assigned that shop was provided.

12. Thetemperature charts were checked and have not exceeded the 0 degree - 100 degree F temperature range.

13. No flammable liquids are being handled in the gas generator handling area.

14. A working platform for removing gas generators from the containers has been provided.

_____
Missile Compartment Safety
Loading Officer

_____
Safety Loading Officer

AUDIT ATTRIBUTE SHEET
IND-PNS-5040/9 (REV 4-76)

AUDITOR: _____

AUDIT PLAN TITLE: _____

REFERENCES:

POPULATION: _____
SAMPLE SIZE: _____
DATE: _____

INSTRUCTIONS TO AUDITORS:

1. Mark each block ■ Satisfactory, ☒ Not Applicable, or number deficiencies [1], [2], etc. Use work sheets to describe deficiencies.
2. Line out applicable attributes not audited.

NO.	ATTRIBUTES	SAMPLE IDENTIFICATION								REMARKS/PERSONNEL CONTACTED
1.	Were other observations applicable to this audit, but not covered by attributes of this audit plan, acceptable?									
2.	Were other observations not applicable to and not related to the subject of this audit acceptable?									
3.	Was a copy of this process instruction made available to the persons performing the work (purpose)?									
4.	Was subject instruction referenced on the job order (purpose)?									
5.	Do the shops and codes follow all the environmental requirements and safety warnings as outlined in this instruction in areas where gas generator transporting, handling, and loading is being accomplished (paragraph 1.1)?									
6.	Was smoking and the use or carrying of matches or other flame producing devices permitted on docks, piers, and onboard the ship during handling evolutions or within 100 feet of the immediate handling area (paragraph 1.1.6)?									
7.	Was a briefing conducted to ensure that all members of handling team are familiar with safety hazards involved and with their responsibilities during gas generator handling (paragraph 1.3.21)?									
8.	Did the Gas Generator Handling Qualification and Certification Board certify personnel necessary to handle gas generators (para 1.3.21)?									

AUDIT ATTRIBUTE SHEET (Continuation Sheet)
IND-PNS-5040/9A (4-76)

NO.	ATTRIBUTES	SAMPLE IDENTIFICATION								REMARKS/PERSONNEL CONTACTED
9.	Were Code 800 personnel notified as to the time and date to be at the bunkers to release the gas generators for transporting to the ship (paragraph 1.2.1)?									
10.	Were flammable liquids handled in the gas generator handling area throughout the gas generator handling evolution (para 1.2.4)?									
11.	Were burning or welding operations permitted on the pier, topside of ship, or areas other than those defined in paragraph 1.2.5 of the Gas Generator Handling Procedure throughout the gas generator onloading evolution?									
12.	Were two fire hoses with pressure to the last valve before the nozzle available in the gas generator handling area throughout the onloading evolution (paragraph 1.2.5.3)?									
13.	Was Test B2-36-01 or C3-36-01 completed and handling gear certified prior to start of evolution (paragraph 1.2.12)?									
14.	Were Code 106.2 personnel on site to monitor the gas generator handling evolution (paragraph 1.3.3)?									
15.	Was all communication equipment capable of radiating 5 watts of electro-magnetic energy in pier handling area and ship (except walkie-talkies on KENNARD Network) secured (para 1.36)?									
16.	Were personnel assigned to the evolution of transporting, handling, and loading gas generators certified to perform their duties (paragraph 1.3.14)?									

AUDIT ATTRIBUTE SHEET (Continuation Sheet)
IND-PNS-5040/9A (4-76)

NO.	ATTRIBUTES	SAMPLE IDENTIFICATION								REMARKS/PERSONNEL CONTACTED
17.	Were Ship's Force personnel involved in gas generator handling briefed in FBWS Standard Operating Handling (WP 100, WP 110, WP 111, WP 121, WP 181) Procedures (paragraph 1.3.16)?									
18.	Was fire fighting equipment available onboard ship throughout the gas generator onloading evolution (paragraph 1.3.17)?									
19.	Was a security vehicle with required security guards standing by throughout the gas generator onloading evolution (para 1.4.5)?									
20.	Was the necessary fire equipment in stand-by at the Fire Station during the loading evolution (paragraph 1.4.6)?									
21.	Was the gas generator handling evolution on the Ship Plan of Day (SPOD)? (Encl 1.3.25)									

TECHNICAL DIRECTIVE CONCURRENCE FORM
SHIPYD-PTSMH-5215/4 (NEW 8-81)

THIS TECHNICAL DIRECTIVE HAS BEEN REVIEWED AND THE TECHNICAL CONTENT, REQUIREMENTS AND PROCEDUR (INCLUDING SAFETY) HAVE BEEN APPROVED FOR ITEMS UNDER THE COGNIZANCE OF THE APPROPRIATE OFFICE.

If this instruction is applicable to the Nuclear Engineering Department, the Nuclear Engineering Manager or his authorized representative shall sign and date the approval block.

If this instruction is the responsibility of the Production Engineering Division, Code 380, and is forwarded to the Design Division for concurrence, the cognizant Assistant Chief Design Engineer or his authorized representative shall sign and date the approval block.

If this instruction requires the performance of quality assurance/quality control functions (e.g., (I) or (V) actions) tests, audits, surveillance, etc., the Chief Quality Assurance Engineer or his authorized representative shall sign the approval block.

If this instruction requires a section on general and specific safety and health precautions, the Head of the Occupational Safety and Health Office or his authorized representativ shall sign the approval block.

If any or all of these signatures are not required, that space will be marked "NOT REQUIRE and initialled by the author code.

SIGNATURE	DATE	
Not Required		NUCLEAR ENGINEERING DEPT
Not Required		DESIGN DIVISION
Not Required		QUALITY ASSURANCE OFFICE
P. O. Michaud	14 APR. 1982	SAFETY OFFICE

FOR OFFICIAL USE ONLY

TECHNICAL DIRECTIVE CHANGE RECOMMENDATION

IND-PNS-5215/9 (NEW 2-77)

NAVSHIPYD PTSMHINST 5215.1H

FROM (SHOP/CODE)	TO (RESPONSIBLE CODE)	DATE

SUBJ: PROCESS INST/EUM&S _____

1. Recommend subject directive be changed as follows:

2. The reason for the recommended change is

_____
SIGNATURE & TEL EXT

Copy to: 244.11

From:

Date

To.

Subj: Your Recommended Change to PROCESS INST EUM&S _____

1. Your recommendation will

- ☐ be incorporated as submitted.
- ☐ be incorporated as follows:
- ☐ not be incorporated because:

2. The scheduled issue date of change/revision incorporating your recommendation is

_____
SIGNATURE & TEL EXT.

Copy to: 244.11

1. General statement of waiver requirement

Waiver is required to maintain submarine security, safety at sea and to permit testing of SSBN missile tubes during post-repair sea trials. This is a request for renewal of CNO waiver No. NAVSHIPYD PTSMH 1-78 granted by CNO ltr OP 411F/721560 of Sep 1978.

2. Specific document containing the explosive safety standard to be waived

a. Waiver is required to permit the off-load and reload of limited quantities of submarine security small arms ammunition and 10-12 rounds of submarine Emergency Identification Signals upon arrival at the -eparture from the Shipyard.

(1) Frequency: 6 times per year.

(2) Class 1 Division 4; quantity: 2000 rounds.
Class 1 Division 3; quantity: 12# new.

b. Waiver is also required to permit the installation of Fleet Missile system missile tube gas generators by Shipyard personnel at NAVSHIPYD PTSHM piers.

(1) Frequency: Semi-annual

(2) Class 1, Division 3, Quantity 1960# new

c. Number of personnel involved within the arc

Each specific berth has various miscellaneous permanent and portable buildings within the 100' ESQD arc for small arms ammunition or 115' arc for gas generator handling. These are generally used for Shipyard shop-crew shelters, lockers and toolbox storage. Number of personnel in each building is generally light, averaging about 10 per structure at any given time. Two-to-three structures will fall within the 100' or 115' ESQD arcs from any given berth.

d. Specific on-station facilities involved

(1) Berth 1
Building 150: Quality Assurance Office
Normal Occupancy: 177
Non-Working Hours: N/A
Civilians: 176
Construction: Brick

(2) Berth 4
Building 238: Production Shops/Admin Shops
Normal Occupancy: 140
Non-Working Hours: N/A
Civilians: 112
Construction: Brick

(3) Berth 5
Building 238: (See Berth 4 above)

Building 242: Chlorine Gas
Normal Occupancy: 0
Non-Working Hours: N/A
Civilians: N/A
Construction: Brick

(4) Berth 6B (Gas Generator Handling Berth)
Building 4: Head
Normal Occupancy: Not Normally Occupied
Non-Working Hours: N/A
Construction: Brick

(5) Building 283: Hyperbaric Chamber
Normal Occupancy: Not Normally Occupied
Non-Working Hours: N/A
Civilians: N/A
Construction: Wood

(6) Berth 6C
Building 283: (See Berth 6B)

Building 286: Test Lab
Normal Occupancy: 0
Non-Working Hours: N/A
Civilians: N/A
Construction: Metal

(7) Berth 11B
Building 194: Flushing Dept.
Normal Occupancy: 3
Non-Working Hours: N/A
Civilians: 3
Construction: Wood

Building 289: Material Control Center
Normal Occupancy: 1
Non-Working Hours: N/A
Civilians: 3
Construction: Wood
Normal Occupancy: 0
Non-Working Hours: N/A
Civilians: N/A
Construction: Wood

Building 291: Radiological Control Facility
Normal Occupancy: 125
Non-Working Hours: N/A
Civilians: 125
Construction: Brick

(8) Berth 11C
Building 277: Steam Plant
Normal Occupancy: 1
Non-Working Hours: N/A
Civilians: 1
Construction: Metal

(9) Berth 13B
Building 291: (See Berth 11B)

(10) Berth 13C (Gas Generator Handling Berth)
Building 277: (See Berth 11C)

Building 239: Head
Normal Occupancy: 10
Non-Working Hours: N/A
Civilians: 10
Construction: Brick

Building 196: Tool and Locker, Shop 11
Normal Occupancy: 16
Construction: Wood

4. Statement specifying reason why compliance with explosives safety standards cannot be effected

Submarine safety and security devices must be maintained on-board until arrival in port. Gas generators must be installed by Shipyard personnel prior to sea trials in order to test missile tubes during sea trials. Physical restraint of Shipyard prevents compliance with current safety standards while performing these operations.

5. Alternatives examined

There is no possibility of loading at anchor; transit to a Weapon Station to load would extend the overhaul cycle time for submarines; safety flares and security weapons must be on-board prior to leaving port.

6. Mission effect of maximum credible explosive accident

An explosive accident is not a likely outcome. Heat generated by gas generators during a maximum credible accident would likely burn handling personnel, but it is unlikely that it would have far reaching effects on the NAVSHIPYD PTSMH mission.

7. Safety precautions to be enforced during period of waiver

In addition to all normal explosive handling safety practices, gas generators are not delivered to the Shipyard until minimum time prior to projected need. Transportation vehicles transporting gas generators on station are escorted by security and fire department personnel at all times until on-loading is completed. Non-essential personnel are excluded from the handling pier and all Shipyard departments are fully coordinated.

8. Resources required to eliminate waiver

Not applicable

9. Actions initiated or to be initiated to eliminate waiver and estimated time to completion

There is little indication that changes in operations or physical facilities at NAVSHIPYD PTSMH will significantly affect the requirement for this waiver.

10. AMHAZ Board Action

Source: Navy Department "Dictionary of American Naval Fighting Ships" Vol. II 1963 (GPO) Washington DC

Deimos

A satellite of Mars.

I

(AK-78: dp. 4,023; l. 441'6"; b. 56'11'; dr. 28'4"; s. 12 k.; cpl. 198; a. 1 5", 1 3"; cl. *Crater*)

The first *Deimos* (AK-78) was launched 28 December 1942 by Permanente Metals Corp., Richmond, Calif., as *Chief Ouray* under a Maritime Commission contract; sponsored by Mrs. M. Moyer; transferred to the Navy 7 January 1943; and commissioned 23 January 1943, Lieutenant Commander W. L. Sorenson, USNR, in command.

Deimos sailed from San Francisco 27 January 1943 with cargo for Espiritu Santo, New Hebrides, and Cleveland Bay, Australia. She arrived at Noumea, New Caledonia, 23 May to load cargo which she delivered to Guadalcanal in June. Returning to her base, she was torpedoed on 23 June on the port side, aft. Efforts to save her failed. She was finally abandoned and sunk by gunfire from *O'Bannon* (DD-450) in 11°26' S., 162°01' E.

Deimos received one battle star for World War II service.

II

The second *Deimos* (AKL-40), the former Army *FS-800*, was acquired by the Navy 12 December 1951, and loaned to the Republic of Korea under the Mutual Defense Assistance Program the same day.

DeKalb

General Baron DeKalb was born in Huittendorf, Bavaria, Germany in 1721. In 1768 he visited the American colonies on a secret mission for the French government, and on the outbreak of the Revolution volunteered his services to the Americans. Given the rank of Major-General by Congress, 15 September 1777, he served at Camden, S.C., with General Gates, and gave distinguished aid to the American cause before being mortally wounded while fighting at the head of his troops 16 August 1780. He died 3 days later.

(AP: dp. 14,180; l. 506'6"· b. 55'6"; dr. 26'; s. 16 k.; cpl. 534; a. 8 5", 6 3")

DeKalb (No. 3010), a transport, was launched 18 June 1901 by Vulcan Co., Stettin, Germany, as *Prinz Eitel Friedrich*. She put in to Norfolk 11 March 1915 for repairs, and failing to leave in the time prescribed by international law, was interned in April and moved to Philadelphia. When the United States entered World War I, she was seized by Customs officials and transferred to the Navy. Reconditioned and refitted as a troop transport, she was renamed *DeKalb*, and commissioned 12 May 1917, Commander W. R. Gherardi in command.

DeKalb was assigned to the Cruiser and Transport Force, Atlantic Fleet, and on 14 June 1917 sailed in the convoy carrying the first troops of the American Expeditionary Forces to France. In the next 18 months *DeKalb* made 11 such voyages, carrying 11,334 soldiers safely. With the end of the war, she continued her transport duty returning 20,332 troops from Europe in eight voyages. On 6 September 1919 she was turned over to the Commandant, 3d Naval District. She was decommissioned 22 September 1919 and returned to the Shipping Board for disposal the following day.

DeKalb, Baron; see *Baron DeKalb*

De Kalb County, see *LST-715*

Dekanawida

Dekanawida was an Indian chief, prophet, statesman and law giver.

Dekanawida (YT-334), formerly *Agnes Foss*, was acquired by the Navy and placed in service in 1942. She was employed in the 14th Naval District, and on 15 May 1944 was reclassified YTB-334. Stricken from the Navy List on 8 May 1946, she was delivered to the Maritime Commission for disposal.

Dekanisora

Dekanisora was an Onondaga chief noted for his oratorical prowess.

Dekanisora (YT-252), formerly *BYT-4*, was acquired by the Navy in 1942 to be employed in the 1st and 5th Naval Districts. She was reclassified YTB-252 on 15 May 1944. She remains in active service in the 5th Naval District.

Dekaury

Two noble chiefs of the Winnebago tribe were so named.

Dekaury (YT-178) was built by Gibbs Gas Engine Co., Jacksonville, Fla., and placed in service early in 1943 in the 1st Naval District. She was reclassified YTB-178 on 15 May 1944 and in 1946 was transferred to the 12th Naval District to perform towing duties until September 1947 when she was placed in reserve. *Dekaury* returned to active service at Mare Island Naval Shipyard in September 1950 and is so employed today.

Delaware

An Indian tribe, the first state in the Union, a bay, and a river.

I

(Fr: dp. 563; l. 117'10"; b. 32'10"; dph. 9'8"; a. 22 12-pdr., 6 6-pdr.)

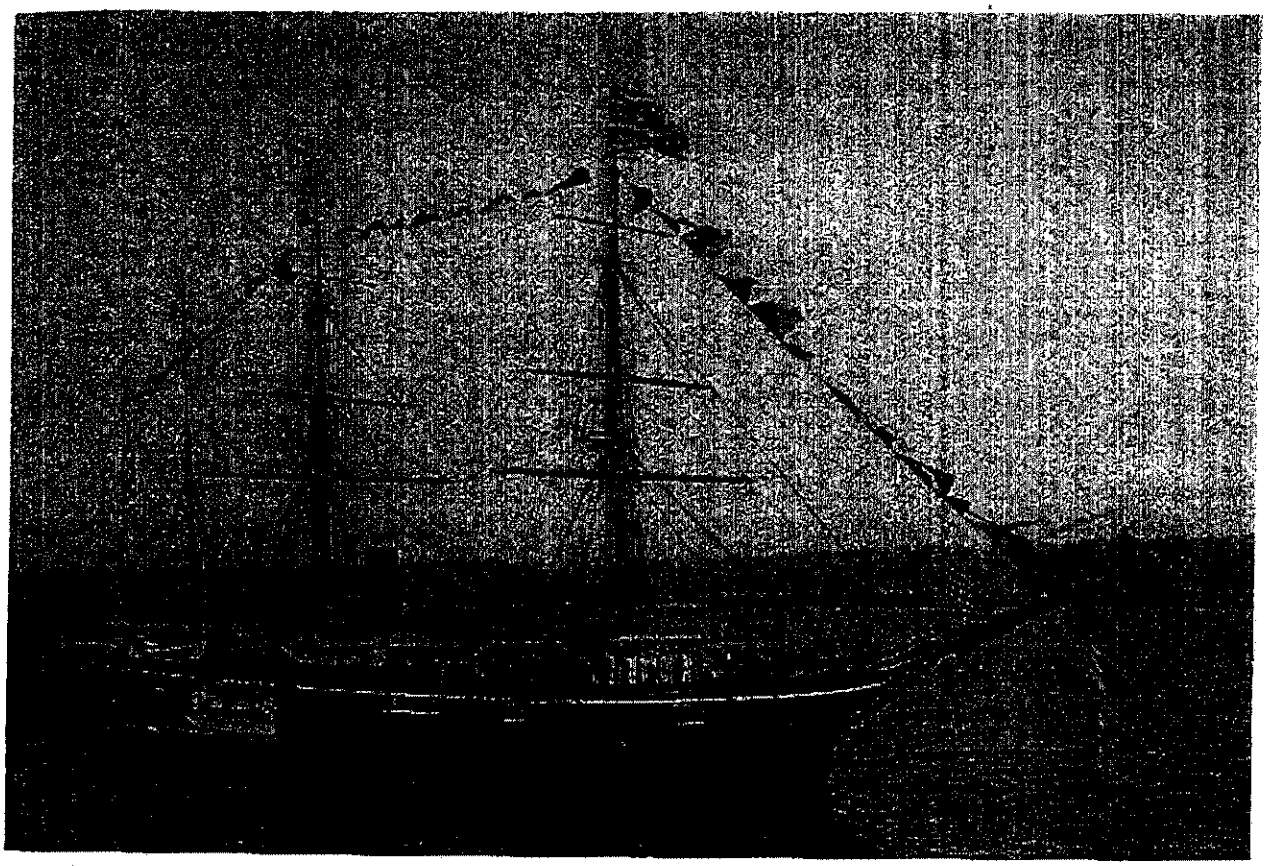
The first *Delaware*, a frigate, was built under the 13 December 1775 order of the Continental Congress in the yard of Warwick Coates of Philadelphia, Pa., under the direction of the Marine Committee. Upon her launching in July 1776, Captain C. Alexander took command. *Delaware* served in the Delaware River, joining with Commodore J. Hazelwood's Pennsylvania state ships in operations which delayed the British Fleet in approaching Philadelphia and supplying the British Army. When the British took possession of Philadelphia 26 September 1777, *Delaware* in company with several smaller ships advanced upon the enemy fortifications which were being erected, and opened a destructive fire while anchored some 500 yards from shore. On 27 September she went aground on the ebb tide and came under the concentrated fire of the British artillery. After a brave defense against overwhelming odds, Captain Alexander was compelled to strike his colors. *Delaware* was taken into the Royal Navy until sold in March 1783.

II

(Ship: t. 321; l. 94'9"; b. 28'; dph. 14'; cpl. 180; a. 16 9-pdr., 4 6-pdr.)

The second *Delaware* was built in 1794 as the merchant ship *Hamburgh Packet* in Philadelphia, Pa., and purchased by the Navy 5 May 1798. Captain S. Decatur, Sr., was appointed to command and outfit her for sea.

During the Quasi-War with France, *Delaware*



USS *Yantic* in full dress during her service as a training ship. Her hull is painted black, relieved only by a narrow white streak above her gun ports, which have been fitted with glass panes.

Source: Navy Department "Dictionary of American Naval Fighting Ships" Vol. VIII 1981 (GPO) Washington DC

to the naval militia of the state of Michigan and served as training ship on the Great Lakes until 1917.

With America's entry into World War I, the Navy expanded. Accordingly, the Civil-War gunboat was recommissioned in 1917 and assigned as a training ship at the Naval Training Station, Great Lakes, Ill. After the armistice, she was struck from the Navy list on 24 July 1919 and ordered sold. However, the venerable *Yantic* was withdrawn from the sale list on 31 December of the same year and again assigned duty as a training ship—this time with the Naval Reserve Forces of the 9th, 10th, and 11th Naval Districts. Commissioned on 15 May 1921, *Yantic*—designated IX-32—operated out of Cleveland, Ohio, until 30 June 1926, when she was decommissioned and again loaned to the state of Michigan.

Yantic suddenly sank alongside the dock at the foot of Townsend Ave., Detroit, Mich., on 22 October 1929. Subsequent investigation revealed that the sinking had been caused by structural weakening, owing to "natural deterioration." She was struck from the Navy list on 9 May 1930.

Yapashi

The generic name of fetishes, representing human forms, found in a prehistoric pueblo above Cochiti, New Mexico.

(YTB-531: dp. 218; l. 100'0"; b. 25'0"; dr. 9'7" (f.); s. 12.0 k.; cpl. 16; d. *Hisada*)

On 23 March 1945, the name *Yapashi* was assigned to YTB-531, a *Hisada*-class large harbor tug slated to be built at Jacksonville, Fla., by the Gibbs Gas Engine Co. However, the contract for the construction of the yardcraft was cancelled in October 1945.

Yaquima

A noted female Indian chief whose name was later taken by the Yaquima Indians, a small tribe that lived in what is now the western part of the state of Oregon.

(YT-171: l. 113'0"; b. 25'0"; dr. 13'8" (max.); a. 2 .30-cal. mg.)

Dauntless No. 14—a steel-hulled, single-screw, diesel-powered tug—was built in 1940 by the Jacobson Shipyards of Oyster Bay, Long Island, N.Y., for the Dauntless Towing Line, Inc., of New York City. Acquired by the Navy on 6 January 1941, *Dauntless No. 14* was renamed *Yaquima* and classified as YT-171—a harbor tug—on 9 January. Converted for naval service at the Portsmouth (N.H.) Navy Yard, *Yaquima* either was placed "in service" or was ready for service on 9 March. Other records indicate another "in service" date, 18 April 1941, which was probably the day that the vessel actually began her operations in the 1st Naval District.

She served a brief tour of duty at New London, Conn., from 15 July to 11 August and then resumed service at Portsmouth. The ship was equipped with a decompression chamber and minor diving equipment at that time, so it is likely that the craft was used as a back-up submarine rescue vessel. In any event, *Yaquima* performed tug and tow service at Portsmouth for the

duration of World War II. During that time, she was reclassified a large harbor tug, YTB-171, on 15 May 1944.

Subsequently placed out of service at the Boston Naval Shipyard on 3 December 1945, *Yaquima* was struck from the Navy list on 8 May 1946 and turned over to the War Shipping Administration for further disposition on 7 June of the same year.

Yarborough

George Hampton Yarborough, Jr.—born on 14 October 1895 at Roxboro, N.C.—enrolled in class no. 4, Marine Corps Reserve, on 7 April 1917, the day after the United States entered World War I, and was given the provisional rank of second lieutenant. After instruction at the Marine Barracks, Parris Island, S.C., he reported to the Marine Barracks at Philadelphia on 4 June 1917 for duty with the 16th Company, 5th Regiment of Marines. Taken to New York in *Seattle* (Armored Cruiser No. 11), Yarborough embarked in *Henderson* (Transport No. 1) on 14 June; sailed for France that day; and reached St. Nazaire on the 27th.

Yarborough, promoted to first lieutenant on 11 August 1917, served two tours of detached duty while assigned to the 5th Regiment, first at Cosne, France, between 8 December 1917 and 4 January 1918, and then at Gondrecourt, France, between 22 February and 23 April 1918.

On 23 June 1918, the height of the battle for Belleau Wood, Lt. Yarborough arrived on the front lines. The next day, intense enemy fire from skillfully placed machine guns pinned down Yarborough's unit—a platoon in a support position in the American lines. The young lieutenant dashed from one shell hole to another, in the open, steadying his men, until a burst of machine gun fire hit him. Severely wounded, he refused aid until other wounded men in his unit received medical attention. Finally moved to shelter, he succumbed to his severe gunshot wounds on 26 June. Cited for his bravery, First Lieutenant Yarborough received the Distinguished Service Cross and Navy Cross, posthumously.

(DD-314: dp. 1,308; l. 314'4½"; b. 30'11½"; dr. 9'1" (mean); s. 35.0 k.; cpl. 122; a. 4 4", 1 3", 12 21" tt.; cl. *Clemson*)

Yarborough (Destroyer No. 314) was laid down on 27 February 1919 at San Francisco, Calif., by the Bethlehem Shipbuilding Corporation's Union Iron Works plant; launched on 20 June 1919; sponsored by Miss Kate Burch, the fiancee of the late Lt. Yarborough; designated DD-314 on 17 July 1920; and commissioned at the Mare Island Navy Yard, Vallejo, Calif., on 31 December 1920, Lt. Comdr. C. E. Rosendahl—later the Navy's pre-eminent authority on airships—in command.

Following commissioning, *Yarborough* was fitted out at Mare Island into late January 1921 and departed the yard on the 25th, bound for Port Richmond, Calif., where she fueled. After trials in San Francisco Bay, Monterey Bay, and San Pedro Bay, the new destroyer tied up at the Reserve Dock at San Diego, Calif., on 2 February. Outside of a trip to San Pedro with liberty parties embarked, the ship remained pierside through mid-April.

Destroyers like *Yarborough* entered service in the midst of post-World War I cutbacks in operating funds and personnel, forcing the adoption of a "rotating reserve" system. One third of the ships in a given large unit would be fully manned and would lie at anchor in harbor; another third would only be half-manned and lie at anchor; and the last segment would be manned by only a bare maintenance crew, necessary to keep the ship in basic operating condition, alongside a pier.

One event highlighted the ship's largely port-bound routine in 1921. She embarked Marine detachments from the cruisers *Charleston* (CA-19) and *Salem* (CL-3), both units under the command of 1st Lt. J. K. Martensteen, USMC, and transported them to Santa Catalina Island on 18 April. Underway from San Diego at 0615 on the 18th, she stood into Isthmus Cove, Santa Catalina Island at 1145, anchoring at 1205. After landing the marines, she got underway and hove to briefly to embark a passenger—Capt. Franck T. Evans, the chief of staff to Commander, Destroyer Force, Pacific Fleet and the son of the famous admiral Robley D. ("Fighting Bob") Evans—before she resumed her passage. Unfortunately, *Yarborough* collided with a buoy at the entrance to San Pedro harbor—an embarassing occurrence in view of the ship's high-ranking passenger. Fortunately, the ship sustained only minor damage to a propeller blade, and no disciplinary action was taken.

Yarborough remained alongside the Santa Fe dock at San Diego until 30 June, when she headed for the Mare Island Navy Yard. After a drydocking, the destroyer ran trials off the southern California coast, during which she shipped heavy seas over the forecastle that caused some damage to her bridge on 11 July. Visiting San Francisco briefly, the destroyer returned to San Diego on the 13th, where she remained into mid-October.

Yarborough subsequently ran gunnery exercises and drills in company with her sistership *Wood* (DD-317) late in October, after receiving on board a large draft of men from *Jacob Jones* (DD-130). *Yarborough* apparently joined the operating segment of the "rotating reserves" at that point because the rest of her career was largely one of operational activity.

She spent the majority of 1922 operating from San Diego, touching at ports in the Pacific Northwest like Port Angeles and Seattle, Wash., and familiar California ports like San Diego and San Pedro. Upon occasion, she operated with the battleship forces and conducted drills and exercises in antisubmarine screening, torpedo firings, and, of course, the staple, gunnery.

The following year, however, *Yarborough* began her voyages beyond what had become the usual west coast routine. After maneuvers out of San Pedro with the Battle Fleet, *Yarborough* departed that port on 9 February 1923, bound for Magdalena Bay, Mexico. Arriving there on the 6th—in company with Destroyer Squadrons 11 and 12 and the destroyer tender *Melville* (AD-2)—she was underway again two days later, this time bound for Panama.

In the succeeding days that February, *Yarborough* took part in the first of the large United States Fleet exercises—Fleet Problem I. Staged off the coast of Panama, Fleet Problem I pitted the Battle Fleet against an augmented Scouting Fleet. *Yarborough* screened the Battle Fleet's dreadnoughts, often serving as a picket in a special defensive screen arrangement ahead of the heavy units. The exercise continued into March; and, during a lull in the maneuvers, Secretary of the Navy Edwin Denby, embarked in *Henderson* (AP-1), reviewed the assembled forces on 14 March.

After further exercises, *Yarborough* departed the Panama area on 31 March as part of the screen for the northward-bound battleships. She arrived at San Diego on 11 April. For the remainder of the year, her schedule remained routine, operations within the vicinity of either San Diego, San Francisco, or San Pedro, with a period under repairs at Mare Island and drydocked on a marine railway at San Diego.

On 2 January 1924, *Yarborough* got underway for Panama to participate in the next series of fleet exercises—Fleet Problems II, III, and IV—conducted concurrently. Problem II simulated the first leg of a westward advance across the Pacific; Problem III tested the Caribbean defenses and the transit facilities of the Panama Canal; and Problem IV simulated the movement from a main base in the western Pacific to the Japanese home islands—represented in that case by islands, cities, and countries surrounding the Caribbean.

4

Log Book, U. S. Navy Yard, Portsmouth, N.H.

Friday, August 31, 1945

Thomas Wilkes
Rear Admiral U. S. N., Commandant.

Clifford H. Roper
Captain U. S. N., Captain of the Yard.

WEATHER REPORT, ETO.

	4 A. M.	8 A. M.	12 M.	4 P. M.	8 P. M.	12 Midnight		4 A. M.	8 A. M.	12 M.	4 P. M.	8 P. M.	12 Midnight
Barometer,	30.06	30.08	30.10	30.10	30.10	30.16	Wind, direction,	NW	NW	NW	NW	NE	NE
Temp. Air,	63	65	74	66	63	60	Wind, force,	2	2	3	3	2	2
Temp. Water,							Weather,	F	F	F	P	R	R.

Low Water Slack, a. m., p. m. High Water Slack, a. m. p. m.

VESSELS AT YARD, UNDER OR AWAITING REPAIRS, IN RESERVE, Etc.

NAME	Date of Arrival	Remarks	NAME	Date of Arrival	Remarks
Salmon	1-10-45	Fitting Out	Orville	5-15-45	Fitting Out
Odax	2-5-45	" "	YTM-6	5-3-36	Sand Craft
Sunfish	5-11-45	" "	YTB-252	5-2-42	" "
Poinsettia	5-12-45	Under Construction	YNT-13	11-14-44	" "
Remora	7-15-45	" "	Vinalhaven	9-16-44	Out of Commission
Sauda	8-24-45	" "	Penguin	8-6-44	Fitting Out
Pollack	6-16-45	Fitting Out	U-845	5-15-45	" "
Picuda	6-23-45	" "	U-873	5-16-45	" "
Burrfish	6-19-45	" "	U-1228	5-17-45	" "
Bang	6-25-45	" "	U-234	5-19-45	" "
			U-3	8-25-45	" "
			U-6	8-25-45	" "
			U-8	8-26-45	" "
			U-10	8-26-45	" "

Total number of men employed this day,

REMARKS

0815 - YST #58 shifted from berth 1 to berth 11. 0825 - U.S.S. Odax placed in dry dock #2. 1135. Sakamissa underway to dispose of rubbish at sea. 1617. Sakamissa stood in and secured at tug landing. 1620 Lt(jg) James A. Bush (E) L, USNR returned to station from temporary duty. 1845 Ens. Beverly B. Tooke, N(W) USNR reported for duty at Naval Hospital. 1930 - U.S.S. Odax undocked and secured at berth 5.

SEP-15-2004 14:10 207 438 2929 P.05

Log Book, US Navy Yard, Portsmouth NH

Tuesday, Aug 31, 1945

	NAME	DATE OF ARRIVAL	REMARKS	NAME	DATE OF ARRIVAL	REMARKS
Out	Salmon	1-10-46	Sitting Out	Onnie	5-15-45	Sitting Out
fit	Odat	2-5-45	" "	YTM-6	9-3-36	Said Chief
	Sirago	5-11-45		YTB-252	5-2-42	" "
	Grayston	5-12-45	Under Construction	YNT-13	11-14-44	" "
mission	Rhuma	7-15-45	" "	Knighrid	9-6-44	Out of Commission
Out	Sanda	8-24-45	" "	Pelquin	9-16-44	Sitting
"	Pollock	6-16-45	Sitting Out	U-805	5-15-45	" "
"	Pinada	6-23-45	" "	U-873	5-16-45	" "
"	Berrfish	6-19-45	" "	U-1228	5-17-45	" "
"	Bang	6-23-45	" "	U-234	5-19-45	" "
				O-3	8-25-45	" "
				O-6	8-25-45	" "
				O-8	8-26-45	" "
				O-10	8-26-45	" "

Total number of men employed this day,

REMARKS

gall

The following officers reported for duty: Lt(jg) Churchill J. Coulter, SC, (S) USNR, 24 Lt(jg) Lawrence J. Cuben, MC, USNR, 25 Aug 45; Lt. Comdr. John T. Winters, MC, USNR, 26 Second Lieut. Robert E. Hogan, USMCR, 16 Aug 45; Lt(jg) Robert W. Vollenweider, USNR, 2 1145- Delhaniera underway, dossed to dispose of obsolete secret equipment. 1150- O- O-6 shifted from berth 5 to berth 6B. O-8 and O-10 shifted from berth 6A to berth 1520- U.S.S. Salmon undocked from building basin and secured at berth 11A. 1610 Delhaniera stood in and secured at dry landing. 1930- Comdr. Joseph D. Gibb MC, USNR reported for duty at Naval Hospital. 1600 Penacook underway to tow barge A.J. Kellogg from lower harbor to Consolidated Coal Co. pier. Duty completed at

C. H. Rogers
Captain, U.S. Navy

Aug 28, 1945 Tuesday

6

Friday June 15, 1945

	Arrival		Name	Arrival	Remarks
Requin	1-5-45	Fitting Out	RIS Omica	5-15-45	Fitting Out
Irex	12-8-44	" "	RIS Marea	2-19-45	" "
Odax	1-10-45	Under Construction	YTM-6	9-3-36	Land Craft
Salmon	2-5-45	Fitting Out	YTB-252	5-2-42	" "
Sea Leopard	3-2-45	" "	YWT-13	11-14-44	" "
Sirago	5-12-45	Under Construction	Saguina	1-6-41	" "
Pompadour	6-12-45	" "	Kingfisher	9-16-44	Out of Commission
Halibut	3-15-45	Fitting Out	Penguin	9-6-44	Fitting Out
Barbero	3-9-45	" "			
R-6	1-31-45	" "			

Total number of men employed this day,

REMARKS

0735 - Delaware stood out to operating area. 1115 Kingfisher underway from berth 16 to operating area. 1205 RIS Marea underway from berth 6 to operating area. 1230 U.S.S. Falcon shifted from berth 2A to 6A. Lt. (jg) William F. James S(E) USNR detached 14 June 1945. 1330 Saguina underway to dump absolute secret ordnance material at sea. 1725 RIS ~~Omica~~ Marea stood in and secured at berth 6B. 1800 Saguina underway to tow barge Thomas Sheridan from lower harbor to Consolidated Coal Co. pier. Duty completed 1800. 1740 U.S.S. Falcon shifted from berth 6 to berth 2. 1835 Delaware stood in from operating area and secured at berth 3½.

E. H. Ryan
Captain, U.S. Navy

Log Book, U. S. Navy Yard, Portsmouth, N. H. Thursday June 14, 1945

Thomas Withers
Rear Admiral U. S. N., Commandant.

Clifford H. Roper
Captain U. S. N., Captain of the Yard.

WEATHER REPORT, ETC.

	4 A. M.	8 A. M.	12 M.	4 P. M.	8 P. M.	12 Midnight		4 A. M.	8 A. M.	12 M.	4 P. M.	8 P. M.	12 Midnight
Barometer,							Wind, direction,						
Temp. Air,							Wind, force,						
Temp. Water,							Weather,						

Low Water Slack, a. m., p. m. High Water Slack, a. m. p. m.

VESSELS AT YARD, UNDER OR AWAITING REPAIRS, IN RESERVE, ETC.

NAME	Date of Arrival	Remarks	NAME	Date of Arrival	Remarks
Requin	1-5-45	Fitting Out	RIS Omice	5-15-45	Fitting Out
Irex	12-9-44	" "	RIS Maea	2-19-45	" "
Odax	1-10-45	Under Construction	YTM-6	9-3-35	Yard Craft
Salmon	2-5-45	Fitting Out	YTB-252	11-14-44	" "
Sea Serpent	3-2-45	Under Construction	YWT-13	8-14-44	" "
Sciaena	5-11-45	" "	Saguinee	1-6-41	
Pompano	6-12-44	" "	Vinalhaven	9-16-44	Out of Commission
Halibut	3-15-45	Fitting Out	Penguin	9-6-44	Fitting Out.
Barbero	3-9-45	" "			
R-6	1-11-45	" "			

Total number of men employed this day,

REMARKS

0440- U.S.S. Tuna underway to operating area from Smith U.B. 0945- Capt. W.B. Holden CEC, USNR left station and temporary duty to escort remains of Capt. Savenniah U. Strogard CC, USNR to Dover, N.H. 1345 Saguina underway to dump obsolete secret ordnance material at sea. 1520 Delaware stood in from standing area and moored at berth.

Thursday June 14, 1945

207 438 2929 P.08
SEP-15-2004 14:11

Log Book, US Navy Yard, Portsmouth, N.H.
Wed June 13, 45

Requin	1-5-45	Fitting Out	RIS Conrad	5-15-45	Fitting Out
Irex	12-8-44	" "	RIS Marco	2-19-45	" "
Idex	1-10-45	Under Construction	YTM-6	9-3-36	Yard Craft
Salmon	2-5-45	Fitting Out	YTB-252	11-14-44	" "
Sea Leopard	3-2-45	" "	YNT-13	5-2-44	" "
Sirago	5-11-45	" "	Jaguina	1-6-41	" "
Pompadon	6-12-45	Under Construction	Kingbird	9-16-44	Fitting Out
Halibut	3-15-45	Fitting Out	Penguin	9-6-44	
Barber	3-9-45	" "			
R-6	1-11-45	" "			

Total number of men employed this day,

REMARKS

0800 - Arundel shifted from Berth 5 to Berth 4. 0900 - Lt James J. Masson returned to the yard from temporary additional duty. 1015 - Idalion sub RIS Marco underway from Berth 6 to Operating Area. Dekanisora was escort. Lt. Herbert D. Kimberly S(E)T. U.S.N.R. reported for duty on 12 June 1945. 1055 - Hospital reports death of Jeremiah A. Fitzgerald, Yeom. U.S.N.R. Cause of death Tuberculosis of kidney. 1230 - U.S.S. Wardank stood in from Boston and delivered YF 477 for service on this station. 1251 - Wardank stood out for Boston. 1310 - Jaguina underway to dump obsolete secret ordnance material at sea. 1530 - Dekanisora stood in from Operating area and secured at Berth 3½. 1615 - Jaguina stood in and secured at berth 3. RIS Marco stood in from Operating area and secured at berth 6.

C. H. Roper
Captain, U.S. Navy

566-1820-05697 2nd Endorsement LKB
Navy Yard, Portsmouth, N.H.

JUL 21 1921

From: Manager
To: Commandant

Subject: Guns removed from ex-German Submarine U-111.

1. The two guns removed from ex-German Submarine U-111, referred to in the attached correspondence, have been placed on board the lighter at Berth No. 4, in accordance with directions contained in the 1st Endorsement, and made ready for dumping at sea when that lighter is towed out to sea with the other material, which is to be dumped.

G. P. Snyder,

76-V-754

22 July 1921.

From: Commandant.
To: Chief of Bureau of Ordnance.

Subject: Guns removed from ex-German Submarine U-111.

Reference: (a) Bureau of Ordnance letter No. 30326/92(I-3)7/30 dated July 14, 1921.

1. The two 4" guns removed from the ex-German Submarine U-111, which were stored at this Yard, were taken to sea and thrown overboard on the morning of 22 July 1921.

N.E. Irwin.

Appendix C: Project Source Data – Site Specific

(23) (94)

US Navy Yard
Portsmouth, NH

3 July 44

From: Commandant
To: COMONE

Ref (a) COMONE Circular Letter No. 4-44

1. Complying with paragraph 5 of reference (a), it is reported that the specific location for the dumping of ammunition for activities within the area of the Navy Yard, Portsmouth N.H. is a circle of 2.5 miles radius whose center is Latitude 43° 13' 30" North, Longitude 70° 09' 30" West.

/s/ T. Withers

Copied by James Dolph, National Archives, Regional Branch Waltham, Ma

RG 181
Box 495
1st Naval District
Folder: Portsmouth Harbor and Navy Yard

Sep 28 04 10:36a C R C I corp 603 433 3354 p.95

SUBMARINES, ATLANTIC FLEET
c/o Fleet Post Office, New York, N. Y.

SPEED LETTER

File & Serial No.	Non-Classified	Restricted	Conf.	Date
S/70/S75/S78/(971)	xxxx			13 Feb 1946

From: COMSUBSLANT
To: (ACTION) COMNAVBASE PTSMH

REQUEST INFORMATION AS TO HOW MUCH OF FOLLOWING MATERIAL ON BOARD USS PROTEUS (AS19) CAN BE UNLOADED AND TEMPORARILY STORED AT PORTSMOUTH NAVAL BASE DURING FORTHCOMING OVERHAUL PERIOD:

WARHEADS (PLUS EXPLODERS, BOOSTERS, AND DETONATORS) - 180

TORPEDOES (MK 14) - 150

AMMUNITION

5"/38 CAL. - 780 RDS.

5"/25 CAL. - 1277 RDS.

40MM - 7000 RDS.

20MM - 14,700 RDS.

50 CAL. - 22,000 RDS.

30 CAL. - 45,000 RDS.

PYROTECHNICS - ABOUT 150 CU. FT.

/s/ G. H. Wales,

G. H. WALES,
By direction.

C O P Y

022516 0170

Sep 28 04 10:35a C R C I corp 603 433 3354 p.94

US NAVY YARD
PORTSMOUTH NH

3 July 44

From: Commandant
To. Comone
Subj: Dumping Grounds, First Naval District

Ref (a) ComOne Circular Letter No. 4-44

1. Complying with paragraph 5 of reference (a), it is reported that the specific location for the dumping of ammunition for activities within the area of the Navy Yard, Portsmouth NH is a circle of 2.5 miles radius whose center is Latitude 43° 13' 30" North, Longitude 70° 09' 30" West

/s/ T. Whitten

Bx 495 RG181 Int. Naval Dist.
Georgia File
Folder Portsmouth Harbor and Navy Yard

Sep 28 04 10:38a C R C I corp 603 433 3354 p.101

(95)

C-878(JKIMO)

CONFIDENTIAL

15 May 1945

To: Commanding General, Harbor Defenses, Boston.

Subj: Dumping Grounds for Explosives, Ammunition, and Chemicals.

Ref: (a) CNO letr. Op-05-G11B/ztl(SC) S78-1 Serial 068705-G dated April 24, 1945.

1. Reference (a) directs the Commandants of Naval Districts to establish an area about ten miles square for use as a dumping ground for the subject material conforming to certain stated restrictions.

2. Examination of all factors involved indicates that the most suitable area for the First Naval District is comprised within a ten-mile square whose center is located in latitude 41°33'N, longitude 65°33'W.

3. Since reference (a) further directs that areas established are to be acceptable to certain other commands and activities including the appropriate U.S. Army authority, an expression of opinion is requested as to the location proposed.

W.D. Herbster,
Captain, U.S.N. (Ret.)
Assistant Commandant (Operations)

Sep 28 04 10:36a C R C I corp 603 433 3354 p.96

88 4/L11-3 30 ND B/031

Op411-N1/ztl
Ser. 26SP411

28 NOV 1945

From: Chief of Naval Operations.
To: Commandant, First Naval District.

Subj: Dumping Ground for Explosives, Ammunition, and Chemicals.

Ref: (a) CNO ltr Op-05-S11B/ztl ltr (SC)278-1 ser 068705-0 dtd 24 Apr 1945.
(b) Com 1 spdltr C-578/(TDHMM) dtd 1 May 1945.
(c) CNO conf dasp 151615 May to Com 1.
(d) Com 1 conf dasp 162012 May to CNO.
(e) Com 1 conf ltr 578(TDHMM) to CNO dtd 27 Aug 1945.

Encl: (A) Copy of ltr from the Hon. John W. McCormack to SecNav dtd 9 Oct 1945 w/enclosure.
(B) Copy of CNO ltr to the Deputy Coordinator of Fisheries ser 69P411 dtd 5 Nov 1945.
(C) Copy of Dept of Interior ltr to Admiral Farber dtd 15 Nov 1945.

1. A reexamination of the question of dumping explosives and chemicals in deep water has recently been made in the Office of the Chief of Naval Operations, and the decision was reached to revoke the authority previously granted (reference (e)) to the Commandant, First Naval District to dispose of ammunition and explosives in the dumping area designated in reference (d), viz.: the circular area of one-mile radius centered at Lat. 42-25-40 N Long. 70-54-58 W. The use of this area for the disposal of ammunition shall be discontinued immediately.

2. The permanent dumping area for the disposal of ammunition, the center of which is located in Lat. 41°-33' N Long. 65°-32' W is satisfactory. Ammunition previously disposed of in the area off Boston lightship may be disposed of in the permanent ammunition dumping area or in another area which may be selected by the Commandant, First Naval District in compliance with reference (a).

3. Enclosures (A), (B), and (C) are for your information.

W. S. Farber
Deputy Chief of Naval Operations (Logistics)

CC:
ComEastSeaFron
BuOrd
Comdt, Coast Guard

February 3, 1945

165 - Deep Sea Dump

97

U. S. NAVAL AIR STATION
BRUNSWICK, MAINE

NA116(RL:sr)
F41-10
3596

NA116
MN2

3 February 1945

020845 00744

To: Chief of the Bureau of Ordnance

Subj: Aircraft Bomb Fuzes, Navy Type - Disposal of.

Ref: (a) NavOrd OCL AV 28-44

1. In accordance with reference (a) aircraft bomb fuzes listed in enclosure (1) herewith were disposed of in deep water on 25 January 1945 at 43° 30' N Lat., 69° 59' W Long.

2. Aircraft bomb fuzes listed in enclosure (1) were disposed of because they had been in ready condition out of moisture proof containers for a period of longer than three weeks. Subject fuzes were turned in to this station by CASU 22.

E.M. ELLIS
Commander, USN
Commanding Officer

Enc.(MN)
(1) List of Aircraft Bomb Fuzes Disposed of

RG 74, BuOrd
E. 1529, Constr. + Proc. Files, 1945
Box 1216, NA 116

DECLASSIFIED
Authority NND 917625
By NARA Date 12 24 02

REPRODUCED AT THE NATIONAL ARCHIVES

Sep 28 04 10:37a C R C I corp 603 433 3354 p.98

February 3, 1945

165 - Deep Sea Dump

U. S. NAVAL AIR STATION
BRUNSWICK, MAINE

N4116(RL:sr)
F41-10
3596

NA116
MN2

3 February 1945

020845 00744

To: Chief of the Bureau of Ordnance

Subj: Aircraft Bomb Fuzes, Navy Type - Disposal of.

Ref: (a) NavOrd OCL AV 28-44

1. In accordance with reference (a) aircraft bomb fuzes listed in enclosure (1) herewith were disposed of in deep water on 25 January 1945 at 45° 30' N Lat., 69° 59' W Long.

2. Aircraft bomb fuzes listed in enclosure (1) were disposed of because they had been in ready condition out of moisture proof containers for a period of longer than three weeks. Subject fuzes were turned in to this station by CASU 22.

E.M. ELLIS
Commander, USN
Commanding Officer

Enc.(HW)
(1) List of Aircraft Bomb Fuzes Disposed of

RG 74, BuOrd
E. 1529, Constr. + Prot. Files, 1945
Box 1216, NA 116

DECLASSIFIED
Authority NND 817625
By NARA Date 12-24-0

REPRODUCED AT THE NATIONAL ARCHIVES

Sep 28 04 10:38a C R C I corp 603 433 3354 p.100

U. S. NAVAL AIR STATION
BRUNSWICK, MAINE

NA116 (RL:ds)
F41-6
4567

19 April 1945

NA116
MN2
04

0423345 0855

To: Chief, Bureau of Ordnance

Subj: Obsolete Bombs and Unserviceable Aircraft Bomb Fuzes and Rockets, Report on disposition of.

Ref: (a) BuOrd letter to NAS Brunswick, File No. NA116 (mn2d) dated 5 April 1945.
(b) BuOrd Pamphlet 1187
(c) BuOrd Circular letter AV28-44

1. Reference (a) authorized this station to dispose of thirty-three (33) Mk 49 Depth Bombs and seventy-five (75) Mk 57 Depth Bombs. In accordance with reference (a), this ammunition has been disposed of on this date.

2. In accordance with reference (b), five (5) aircraft rocket motors Mk 7 and seven (7) 2"25 rocket motors Mk 11 have been disposed of. These rockets were misfires and had been used in the Rocket Training Program at this station.

3. In accordance with reference (c), twenty-five (25) Mk 250, Mod 5, aircraft bomb fuzes, Lot No. 57, have been disposed of. These fuzes were turned in to this station by Fleet Air Wing Headquarters Squadron 9-1.

4. Ammunition mentioned in paragraphs 1 and 2 above has been billed on NAS Brunswick "Notice of Ammunition Issued" No. 117-45. All of the above ammunition was disposed of by dumping in deep water at approximately Lat. 43°-30'-00" N; and Long. 70°-00'-42" W.

E. M. ELLIS
Commander, USN
Commanding Officer

CC: ComOne (District Ordnance Officer)
Naval Air Bases (Attention: Ordnance Officer)

Sep 28 04 10:37a C R C I corp 603 433 3354 p.99

U. S. NAVAL AIR STATION
BRUNSWICK, MAINE

NA116 (RL:ds)
F41-6
4567

19 April 1945

NA116
MN2
DN

042345 6855

To: Chief, Bureau of Ordnance

Subj: Obsolete Bombs and Unserviceable Aircraft Bomb Fuzes and Rockets, Report on disposition of.

Ref: (a) BuOrd letter to NAS Brunswick, File No. NA116 (mn2d) dated 3 April 1945.
(b) BuOrd Pamphlet 1187
(c) BuOrd Circular letter AV28-44

1. Reference (a) authorized this station to dispose of thirty-three (33) Mk 49 Depth Bombs and seventy-five (75) Mk 37 Depth Bombs. In accordance with reference (a), this ammunition has been disposed of on this date.

2. In accordance with reference (b), five (5) aircraft rocket motors Mk 7 and seven (7) 2"25 rocket motors Mk 11 have been disposed of. These rockets were misfires and had been used in the Rocket Training Program at this station.

3. In accordance with reference (c), twenty-five (25) Mk 230, Mod 3, aircraft bomb fuzes, Lot No. 57, have been disposed of. These fuzes were turned in to this station by Fleet Air Wing Headquarters Squadron 9-1.

4. Ammunition mentioned in paragraphs 1 and 2 above has been billed on NAS Brunswick "Notice of Ammunition Issued" No. 117-45. All of the above ammunition was disposed of by dumping in deep water at approximately Lat. 43°-30'-00" N; and Long. 70°-00'-42" W.

E. M. ELLIS
Commander, USN
Commanding Officer

CC: ComOne (District Ordnance Officer)
Naval Air Bases (Attention: Ordnance Officer)

CONFIDENTIAL
DECLASSIFIED

RESTRICTED

NAVORD OCL

105

upgraded to Confidential 2-4-54
AO 134-42 pp 35 2-4-2
AV 14-44 pp 52 2-54

SUPER

RESTRICTED AND UNCLASSIFIED

ORDNANCE CIRCULAR LETTERS

CUMULATIVE EDITION

A BUREAU OF ORDNANCE PUBLICATION

15 NOVEMBER 1945

CONFIDENTIAL
DECLASSIFIED

Sep 28 04 10:43a C R C I corp 603 433 3354 p.106

(a) The contractor is installing a 4-inch by 5-inch window at station No. 146 above the bomb bay window for the sole purpose of visually inspecting the bomb bay for "hung up" bombs.

(b) The use of the Bomb Shackle Mk 8 and Mods and Bomb Shackle Release Mk 1 and Mods in later production will eliminate most of the difficulties presented by the present release system.

(c) Bureau of Aeronautics Service Bulletin No. 170 has been issued informing units that standard bomb loading may be released up to a glide angle of 60 degrees. However, caution must be observed not to violate T.O. 21-44. Tests to determine limiting dive angles while carrying clusters are now in progress.

ALL OPERATING UNITS ARE WARNED TO OBSERVE STRICTLY THE NEED FOR A CAREFUL COMPLETE VISUAL INSPECTION OF THE BOMB BAY PRIOR TO LANDING.—*BuAer. D. C. Ramsey; BuOrd, G. F. Hussey, Jr.*

NAVORD OCL AV15-45 Live-Loaded Bombs for Training Purposes—Establishment of Allowances of

F41-6(Mn2d), 21 April 1945

(Ref.: (a) NavOrd OCL AV7-45.)

1. An allowance of live-loaded aircraft bombs for training purposes is hereby established for the guidance of all activities. This allowance, for any single activity, will be based upon the pilots in training, in each type of aircraft, according to the following table:

(a) *For Pilots Undergoing Operational Training:*
- 1—500-lb. G. P. Bomb per CV Pilot.
- 1—350-lb. Depth Bomb per VO-VS Pilot.
- 2—500-lb. G. P. Bombs per Multi-engine Pilot.
- 2—350-lb Depth Bombs per Multi-engine Pilot.

(b) *For Pilots in Combat Squadrons Each Quarter (based on 60% Pilot Availability):*
- *3—500-lb. G. P. Bombs per CV Pilot.
- 3—350-lb. Depth Bombs or 500-lb. G. P. Bombs per Multi-engine Pilot.
- 3—100-lb. G. P. Bombs per Pilot (CV and Multi-engine).

2. The expenditure of bombs for training will be in accordance with reference (a) as long as any stocks exist. Subsequent revisions of reference (a) will indicate the release of additional types as necessary, to cover the over-all training requirements.

*In the Hawaiian Area each pilot is allowed two 500-lb. G. P. Bombs per 30-day period.

3. Training activities inside the continental limits of the United States may stock an allowance of live-loaded bombs for training, as listed in reference (a), not to exceed 50% of their service bomb allowance. Replenishment may be made from the nearest Naval Ammunition Depot without reference to this Bureau. Ex-continental activities shall use up all available local stocks of bombs as listed in reference (a) and then submit future requirements quarterly to their Area Commander.

4. The table listed in paragraph 1 is a guide to allowances only, and should not be considered binding on the Commanding Officer of any activity as to training expenditures, the latter being a matter under the cognizance of the Chief of Naval Operations.—*BuOrd, G. F. Hussey, Jr.*

NAVORD OCL AV16-45 Aircraft Bombs at Shore Activities—Surveillance and Disposal of

RESTRICTED F41-6(Mn2d), 25 April 1945

(Ref.: (a) NavOrd OD 5603.
(b) NavOrd OTI V26-44.
(c) NavOrd OCL X4-45.
(d) OP 5 (REV. 1).
(e) NavOrd OCL A89-44.)

1. A definite policy is hereby established for the segregation and disposal, where required, of present stocks of aircraft bombs, and of aircraft bombs returned from combat areas and combatant vessels.

2. Aircraft bombs shall be generally classified either SERVICE or OBSOLETE and all aircraft bombs shall be considered SERVICE until declared OBSOLETE by the Bureau of Ordnance. All Naval activities are directed to review all existing stocks of SERVICE aircraft bombs and by visual inspection segregate them into the following defined classification for disposition:

(a) *SERVICEABLE*—Aircraft bombs which have not been classified unserviceable as hereinafter defined and which are complete subassemblies in accordance with reference (a) are to be classified SERVICEABLE, and are to be kept in stock for issue.

(b) *INCOMPLETE*—Serviceable aircraft bombs as described in paragraph 2 (a), above, which are incomplete subassemblies in accordance with reference (a) are to be classified INCOMPLETE. All such bombs are to be retained and rendered complete by the assembly of the missing components. The necessary components, if not available locally, may be requested from this Bureau. Upon completion, the bombs are to be classed SERVICEABLE and are to be kept in stock for issue.

(c) *OVERHAUL (TEMPORARILY UNSERVICEABLE PENDING OVERHAUL)*—Aircraft bombs adjudged unfit for service use due to corrosion, or immersion in sea or oily water, are to be overhauled and returned to stock for issue. However, only the following overhaul is permissible, and then only by responsible ordnance personnel:

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(1) *Corrosion*—Exterior surfaces of the bomb cases may be cleaned of accumulated dirt, rust, or corrosion with copper or brass brushes and scrapers, unless the corrosion is such that the case is dangeously thin. Threaded parts shall be cleaned with copper or brass wire brushes, and all suspension lugs shall be smoothed with emery paper as directed in reference (b).

(2) *Oil and Foreign Matter*—A noninflammable solvent, preferably carbon tetrachloride, may be used to remove oil or foreign substances on the outer surfaces of the bomb case, in the athwartship tube of depth bombs or in the tail and nose fuze cavities, but care must be taken that it is not allowed to seep into the explosive contents around the fuze cavities. Only nonalkaline solvents shall be used. In all cases exactly the same markings and stenciled legends are to be reapplied to the bomb case and a thin film of oil should be applied to threads. When overhauling bombs, general safety precautions as prescribed in the Bureau of Ordnance Manual, paragraph 13H4, and in reference (d), shall be enforced.

(d) *UNSERVICEABLE*—Aircraft bombs, requiring repairs other than those permitted above, shall be classified UNSERVICEABLE. Damaged or broken suspension lugs, cases broken open or corroded through, damaged or out-of-line fuze seat liners, or any damage to the bomb which affects its ballistic characteristics or renders it dangerous to handle, that cannot be readily or safely repaired, shall be considered cause for classification as UNSERVICEABLE. Particular attention should be directed to depth bombs since these are light case bombs and they are easily dented or may be corroded completely through. A dented case in itself is not dangerous unless the case is broken, fuze cavities are distorted, fittings canted out of line, or the body so bent that the tail will not properly seat. It is therefore directed that any depth bomb whose case is dented be carefully checked for distortion or malalignment of fittings, fuze seat liners, and tail vanes, and that all questionable bombs be classed UNSERVICEABLE.

3. All unserviceable bombs shall be disposed of as expeditiously as possible in accordance with the following instructions:

(a) Continental activities shall request specific disposition instructions from the Bureau of Ordnance. All unserviceable bombs to be disposed of shall be listed, with a complete description of their condition. Other pertinent information desired, if available, is the cause of their condition, and the facilities available for disposition in deep water, by detonation, or by burning. Reference (d) shall be consulted for general instructions governing the location and methods of disposition. If no facilities exist for any of the above methods of disposition, arrangements will be made by this Bureau for shipment to an activity with disposal facilities.

(b) Ex-continental activities shall dispose of unserviceable bombs under the express direction of the Area or Theater Commanders, as Class II (unserviceable) Ammunition in accordance with reference (e). All bombs so disposed of shall be reported to the Bureau of Ordnance giving all pertinent facts as to the reason for unserviceability.

(c) Continental Naval activities shall, prior to the disposal of any bombs, strip them of all components. These components will either be returned to stowage if common to other bombs, or disposed of in accordance with reference (c). Ex-continental activities shall scrap all nonusable components locally.

4. Those activities which report inventories of bombs (Class A Material) to the Bureau by means of the Ammunition Stock Recording System shall code the above classifications as follows:

(a) *SERVICEABLE*—The six digits shall end in 0.
(b) *INCOMPLETE*—The six digits shall end in 5.
(c) *OVERHAUL*—The six digits shall end in 9, until the item is made serviceable when it shall be recoded.
(d) *UNSERVICEABLE*—The six digits shall end in 9.

5. From time to time this Bureau will publish a list of those bombs which have been declared OBSOLETE and will indicate which of the following four types of disposition will be permitted or required:

(a) Disposal in deep water.
(b) Disposal by detonation.
(c) Disposal by burning.
(d) Disposal by expending practice.

OBSOLETE bombs to be disposed of by (a), (b), or (c), above, are those that have become no longer useful and are not considered economical for further stowage. These shall be classed OBSOLETE, UNSERVICEABLE and so listed in the Ammunition Stock Recording System. Disposition of obsolete bombs shall be in accordance with paragraphs 3 (a) and (b), above, for unserviceable bombs. Only those obsolete bombs specifically designated for practice may be so used. OBSOLETE bombs to be expended in practice shall be examined and classified in the same manner as indicated for SERVICE bombs in paragraphs 2 and 3, above, and incomplete bombs shall be made complete as directed. OBSOLETE bombs requiring minor overhaul for expenditure in practice may be reworked for use; however, if extensive, uneconomical overhaul is required the bombs shall be considered UNSERVICEABLE and disposed of by (a), (b), or (c), above. Transfer to training activities may be requested for OBSOLETE bombs which are designated for practice and stowed at continental activities where no operational training with live bombs is being carried on, and where stowage space is critical. Ex-continental activities with limited opportunities for expenditure in operational training may dispose of any obsolete bombs by (a), (b), or (c), above. In all cases of disposition by ex-continental activities by detonation, burning, or dumping in deep water, a qualified bomb disposal officer shall supervise.

6. Fragmentation, incendiary, and smoke clusters will be examined, segregated, and repaired by responsible ordnance personnel in accordance with the above directions, with the following exceptions:

(a) M28 and M29 fragmentation clusters—The cluster adapter when loaded with M83 bombs may not be opened for any purpose.

(b) Incendiary and smoke clusters shall not be disassembled.

Clusters which are classified UNSERVICEABLE shall be disposed of under the supervision of a bomb disposal

officer. In general, incendiary and smoke clusters should be disposed of by burning or detonation, fragmentation clusters by dumping in deep water. Disposal by detonation, burning, or by dumping in deep water will be accomplished as directed in paragraph 3.

7. Chemical bombs and clusters shall be examined and any missing components should be replaced in accordance with paragraph 2 (b), above. Instructions for the handling, repair, maintenance, and disposition of chemical bombs and clusters are included in reference (d), Chapters 25 through 30, inclusive, and shall be carefully observed.

8. To minimize handling, all aircraft bombs turned in to coastal activities from combat areas and combatant ships should be inspected and segregated as above and appropriate disposition should be effected.—*BuOrd, G. F. Hussey, Jr.*

NAVORD OCL A17-45 Demolition Charges Mark 2 Mod 0, Mark 2 Mod 1, and Mark 2 Mod 2

RESTRICTED S76-3(2)(Re2g), 3 March 1945

(Ref.: (a) NavOrd OCL A55-44 Dated 24 July 1944.)

1. Paragraphs 3(b) and 12(d) of reference (a) describe Demolition Charges Mk 2 Mod 0, Mk 2 Mod 1 and Booster Mk 13.

2. Recent tests revealed that high order detonation is not obtained in some cases when the Booster Mk 13 is used with Demolition Charges Mk 2 Mod 0 or Mod 1.

3. In order to use the Booster Mk 13 in Demolition Charges Mk 2 Mod 0 and Mk 2 Mod 1, the following instructions must be adhered to:

Remove T.N.T.—Tetryl Block (demolition charge Mk 4), pack booster well ¾ full of composition C2 or C3 (Army designation, Blocks Demolition M3 or M4). Insert Booster Mk 13 so as to be completely buried in the plastic explosives. In the event no plastic explosive is available, use ½ lb. Block of pressed T.N.T. (Demolition Charge Mk 3, Army designation Block ½lb. T. N. T.).

4. Demolition Charge Mk 2, Mod 2 is a modification under development which allows the use of either mechanical or electrical firing without using the Booster Mk 13. As soon as this is developed, further instructions will be issued covering distribution of Demolition Charge Mk 2 Mod 2 and conversion of Demolition Charges Mk 2 Mod 0 and Mk 2 Mod 1, to Demolition Charge Mk 2 Mod 2.—*BuOrd, G. F. Hussey, Jr.*

NAVORD OCL AV18-45 Aircraft Rockets—Stowage Aboard Aircraft Carriers

(Re2d), 17 May 1945

(Ref.: (a) BuOrd C/L A-341 dated 8 May 42.
(b) 1943 Edition of Bureau of Ordnance Manual.)

1. This Ordnance Circular Letter summarizes general regulations for stowage of aircraft rocket components on board aircraft carriers. As the stowage regulations are revised, this Ordnance Circular Letter will be superseded by another, setting forth the new regulations. In cases where the information in Ordnance Pamphlets is contradictory to that contained herein, the rules of this letter are to apply; the Ordnance Pamphlet will then be brought up to date as soon as possible. General rules which must be followed when stowing rockets and rocket components aboard aircraft carriers are promulgated in the following paragraphs:

2. *Rocket Motor Stowage*

a. Currently rocket motors are being issued in wooden shipping containers and may be stowed in these containers aboard aircraft carriers. Although these shipping containers are not waterproof and are considered to be a fire hazard when stowed in magazines, they do afford protection for the rocket motors.

b. The Chief of Naval Operations has authorized unboxed stowage of rocket motors, 20% of 3.25" and 5.0" motors to be stowed with fin assemblies attached. When rocket motors are stowed unboxed, the following requirements should be incorporated in arranging stowage:

(1) They must be supported at two points. The spacing between supports for 3.25" and 5.0" rocket motors should be 15.0" or greater with supports located approximately equidistant from the center of the rocket motor and without interference with launching lug bands.

(2) They must be adequately protected against any motion or shifting.

(3) Stacking in any manner wherein the motors would rest upon each other is prohibited.

(4) Stowage must be in a horizontal position.

(5) The electric system must be adequately protected so that no breaks or short circuits will result from the unboxed stowage.

(6) The external fittings must be protected against damage.

(7) Suitable protection against deformation of the metal parts must be provided, so as to avoid damage to, or dislocation of, the propellant grain.

(c) Rocket motors must be stowed in primary powder magazines as defined in section 14B of reference (b). Small numbers of rocket motors, but not assembled rockets, may be stowed in ready service magazines, compartments or lockers as defined in section 14B of reference (b). The provisions of reference (a), with the exception of subparagraphs 5(c), 5(d) and 5(e)(1), are applicable to rocket propellant powder.

d. Rocket igniter squibs are similar to electric detonators, the stowage of which is covered by U. S. Navy Regulations, 1920, Article 972, subparagraph 103(d). Accordingly, rocket motors shall not be located in the same compartment with or near radio apparatus or antenna leads.

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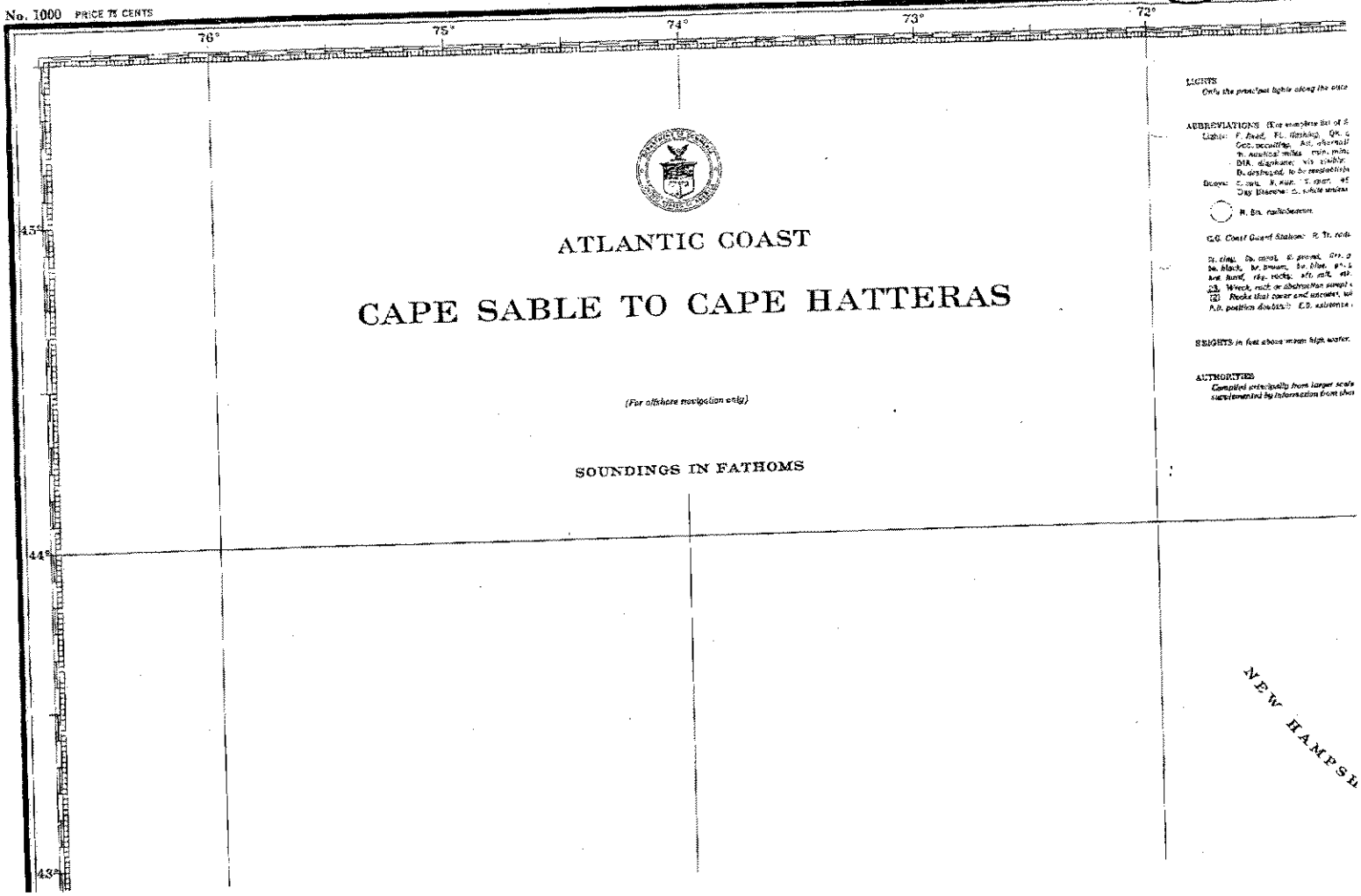

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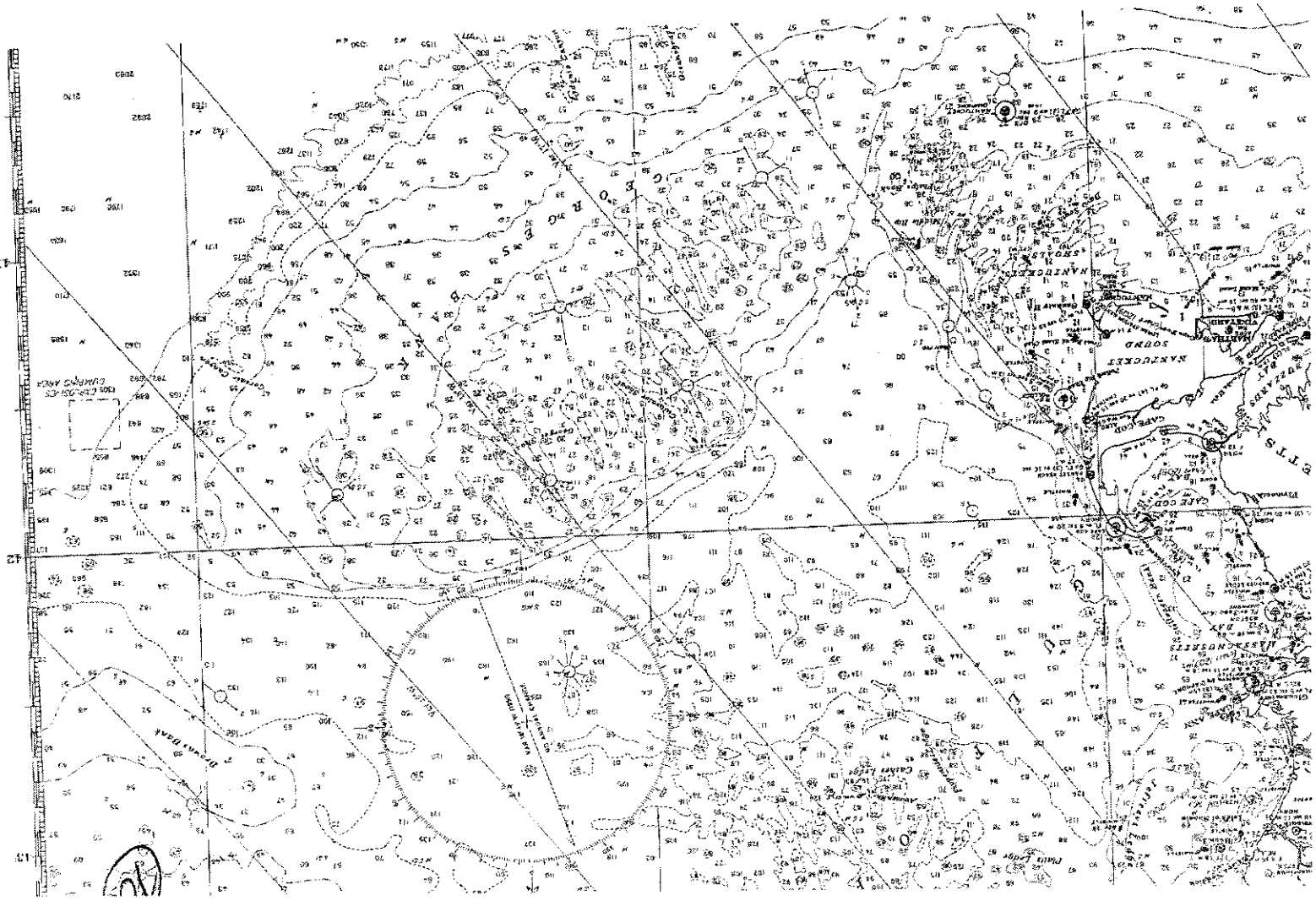

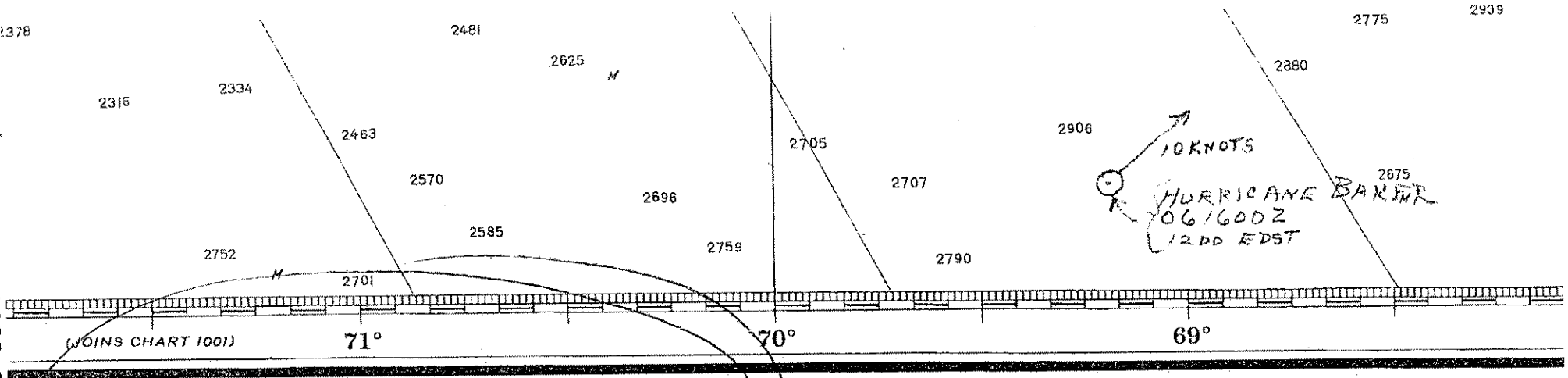

Published at Washington, D. C., Nov. 1949 (13th Edition)
(First Edition 1900)
U. S. COAST AND GEODETIC SURVEY
R. F. A. Studds, Director

LIGHTS, BEACONS, BUOYS, AND DANGERS CORRECTED FOR INFORMATION RECEIVED TO THE FOLLOWING DATE

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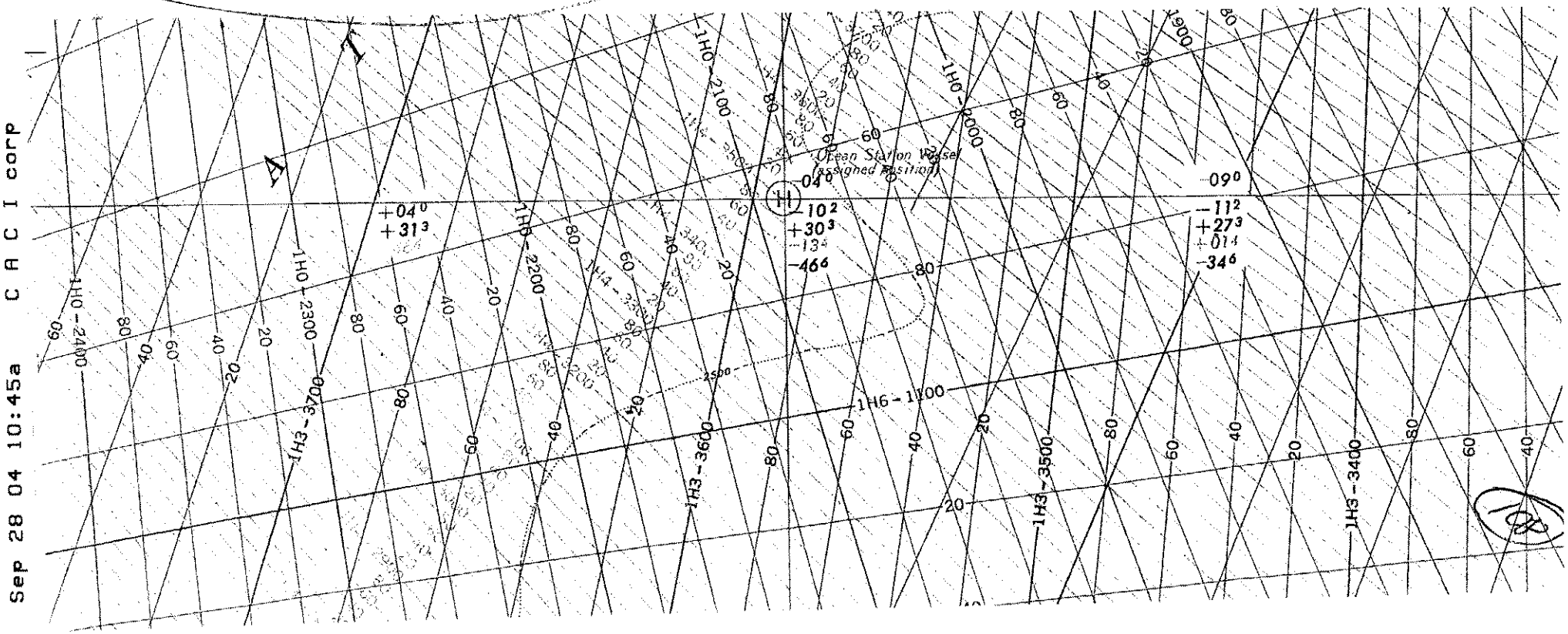

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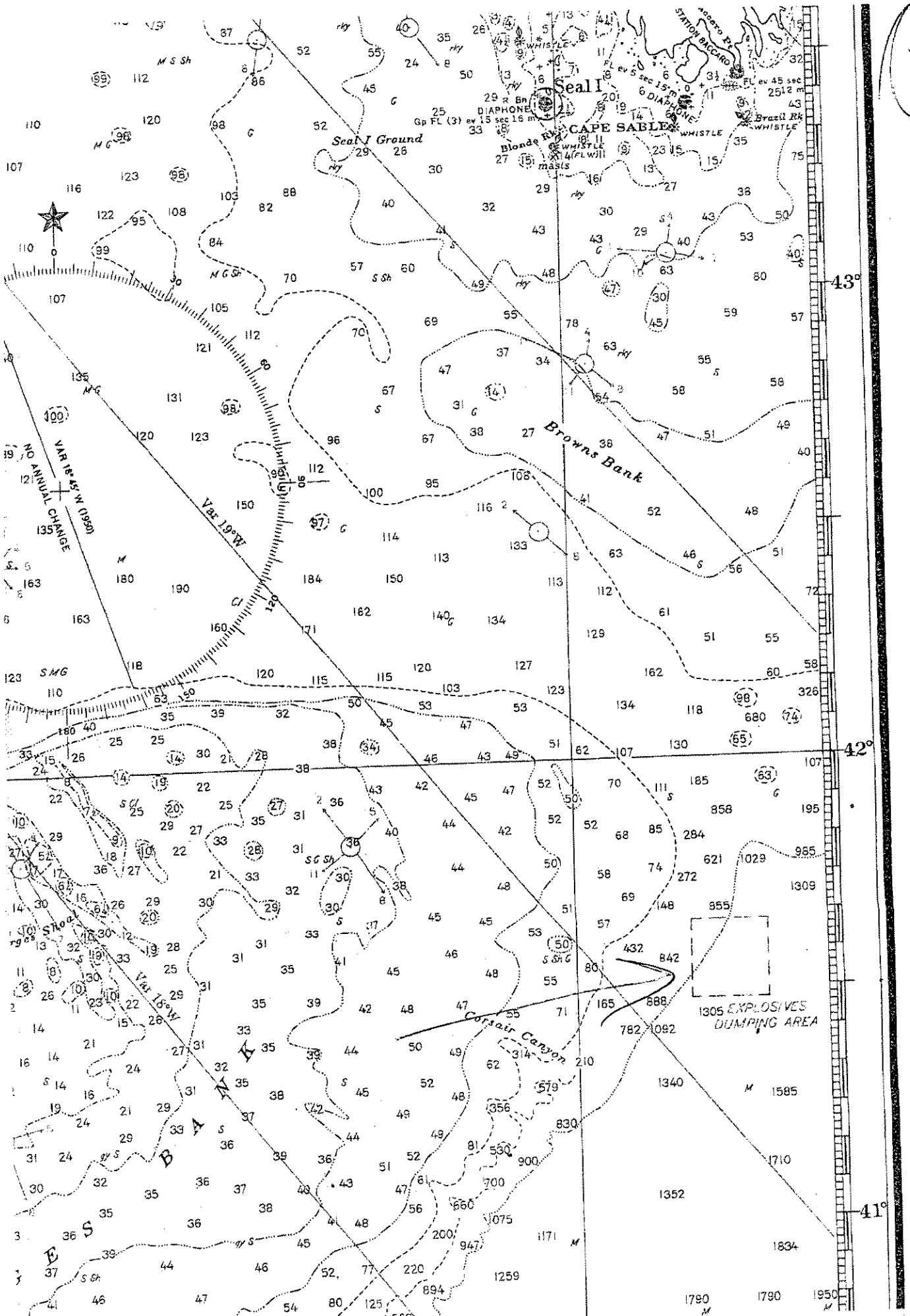

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666-1820-05697

2nd Endorsement
Navy Yard, Portsmouth, N.H.

LKB

From: Manager
To: Commandant

JUL 21 1921

Subject: Guns removed from ex-German Submarine U-111.

1. The two guns removed from ex-German Submarine U-111, referred to in the attached correspondence, have been placed on board the lighter at Berth No. 4, in accordance with directions contained in the 1st Endorsement, and made ready for dumping at sea when that lighter is towed out to sea with the other material, which is to be dumped.

G. P. Snyder.

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Appendix D: Ordnance Technical Data Sheets

Ordnance Technical Data Sheet

TNT

TNT (2, 4, 6-trinitrotolucne) is a constituent of such explosives as amatol, pentolite, tetrytol, tritonal, picratol, and Comp B. In a refined form, it is one of the most stable high explosives. In the pure state, it is crystalline and nearly white, resembling a light brown sugar.

(1) TNT is relatively insensitive to shock or friction and can be stored indefinitely. When unconfined and ignited by a flame, it burns slowly and does not explode. It does however, emit a heavy, oily, black smoke. The burning or rapid heating of large quantities in a closed vessel may cause a violent detonation.
(2) TNT is non-hygroscopic and does not form sensitive compounds with metals. When exposed to alkalies it forms unstable compounds that are very sensitive to heat and shock.
(3) The melting point of standard grade 1 TNT is 176°F (80°C). When melted and poured into a projectile or bomb, TNT forms a solid crystalline explosive charge. To assure complete detonation, cast TNT requires a booster charge of compressed tetryl or an explosive of similar brisance. As a military explosive it is very satisfactory. Ammunition loaded with TNT can be stored, handled, and shipped with comparative safety. Exudation. Ammunition loaded with TNT and stored where the temperature is approximately 160°F (71.11°C) or above, may exude an oily brown liquid. The exudate can ooze out around the threads on the projectile nose and the seams of packaged dynamite, forming pools on the floor. It may contain particles of TNT and is highly flammable. Handling and removing is only by qualified personnel. Used as Bursting Charge. High explosive rounds, bombs, mines, and parts of certain rounds and bomb clusters may use TNT as a bursting charge. Small, highly compressed block enclosed in a waterproof fiber container that protects the TNT from crumbling during handling. Used as a blasting Charge. TNT is suitable for all types of blasting. It produces about the same effect as an equal weight of 50- to 60-percent grade dynamite. It is also used as a surround in some amatolloaded ammunition.

Reference: Military Demolition Material List

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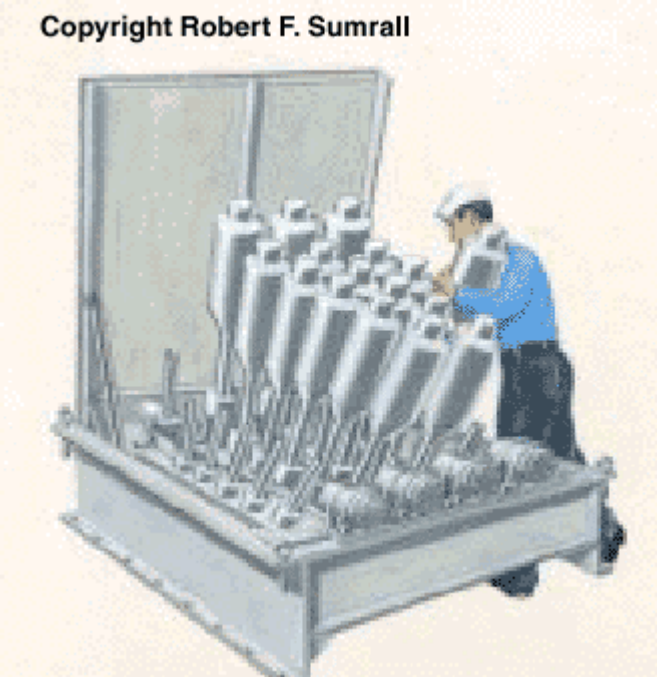

The Mark 10/11 "Hedgehog" Projector

By Robert F. Sumrall (DD 762)

The Mark 10 and Mark 11 were ahead-throwing weapons that could launch a pattern of twenty four Mark 6, 7.2-inch projector charges ahead of the attacking vessel. As part of the 1950 armament conversion program, all active SUMNERs, GEARINGs, and FLETCHERs were fitted with MK 10 or MK 11 projectors.

The projector was fixed to the deck and consisted of a base frame and blast shield, cradles and spigots, and a roll correction gear assembly. The firing mechanism was attached to the back of the blast shield. There were four longitudinal tilting cradles, each carrying six fixed spigots tipped with firing pins. The tail of the charge fitted over the spigot and seated on the retaining nut of the firing pin. The spigots were positioned so that, when fired, the charges would describe either an elliptical or circular pattern when entering the water. The pattern could be varied by changing the tilt angle of the spigots. They were fired electrically, in pairs, at intervals of a 0.10 second through a ripple switch in the controls.

The MK 10 and MK 11 were nearly identical, differing in the shape and distance that their patterns were projected. The MK 10 fired an elliptical pattern approximately 140 by 120 feet out to a maximum of 200 yards while the MK 11 fired a circular pattern approximately 200 feet in diameter out to a maximum of 188 yards. The MK 6 projector charge was 7.2 inches in diameter, 3.88 feet long, and weighed between 50 and 53 pounds.

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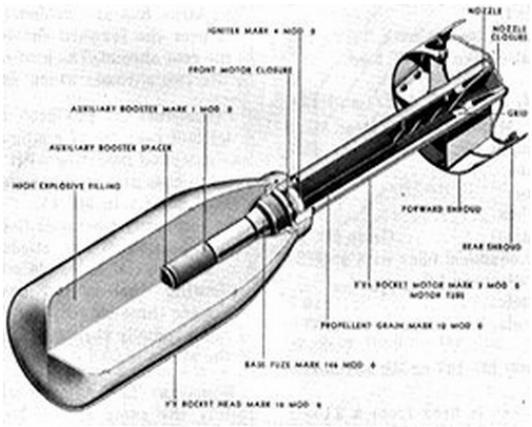
<u>Ordnance Technical Data Sheet</u>

U.S. ROCKET, 7.2-IN, HEDGEHOG



Nomenclature:	U.S. ROCKET, 7.2-IN, HEDGEHOG
Ordnance Family:	Rockets
DODIC:	N/A obsolete
Filler:	TNT or Torpex
Filler weight:	± 15.88 kg (35 lbs)
Item weight:	29.88 kg (65 lbs)
Diameter:	182.88 mm (7.2in)
Length:	980.44 mm (38.6in)
Maximum Range:	228.6 m (250 yds)
Fuze:	Hydrostatic Contact Fuze

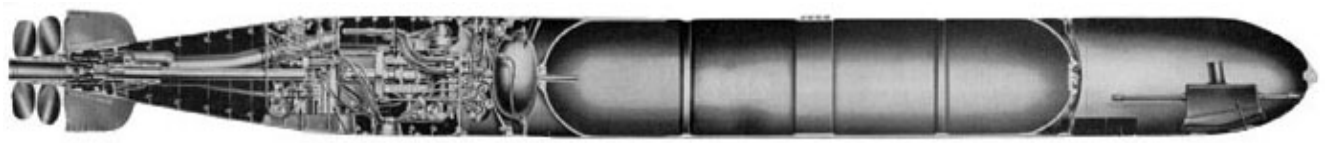
Usage: Ship launched Anti-submarine weapon.

Description: The rocket consists of a flat-nosed head with a conical tail fairing and parallel sides. The adapter and fuze thread into the nose. The motor unit consists of a smokeless powder cartridge with primer, which is lodged forward in the tail tube, the tube fitting over a firing post. The primer is detonated by electric contacts in the post. This charge is for use on Projectors Mk 10 and Mk 11.

Reference: ORDATA Online

Ordnance Technical Data Sheet

U.S. Submarine-Launched Anti-Surface Torpedo MK 14



Nomenclature:	U.S. Torpedo MK 14
Ordnance Family:	Projectile
DODIC:	Not Provided
Filler:	Torpex
Filler weight:	292.00 kg (643 lbs)
Item Weight:	1488.00 kg (3280 lbs)
Diameter:	533.00 mm (21 in)
Length:	6248.00 mm (20 ft 6 in)
Maximum Range:	4100 m (4500 yds)
Fuze:	Impact and magnetic influence

Usage: Service life, 1931 – 1970's, used as an anti-surface shipping weapon, submarine launched, steam powered, non-guided, impact or magnetic influence fired underwater projectile.

Description: Anti-shipping, a depth-controlled self-propelled underwater projectile that was difficult to detect and that exploded below the waterline, dramatically increasing warhead effectiveness because it filled the target with water instead of air.

Reference: Naval Undersea Warfare Center Newport Div RI, FAS Military Analysis Network.

** Torpex – a mixture of 37 -41 % TNT, 41 – 45% RDX (cyclonite, cyclomethylene trinitramine) and 18% aluminum.