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**HISTORY OF HARBOR ENTRANCE CONTROL POST
FORT WADSWORTH, NEW YORK**

- Section I Historical Background**
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Harbor Entrance Control Post

Fort Wadsworth, New York

SUBJECT: History of HECF.

**TO : COMMANDING GENERAL, Harbor Defenses of New York,
Fort Hancock, New Jersey.**

**In compliance with orders, History of HECF Fort Wadsworth,
is submitted.**

Carmin G. Boyis
CARMIN G. BOYIS
Major C.A.C.
Senior Army Duty Officer

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SECTION I

1. HISTORICAL BACKGROUND.

a. On June 7, 1941, Headquarters, 2nd Coast Artillery District, Fort Hamilton, New York published General Order #8 from which is taken the following extract:

"By direction of the President, the Navy has instituted certain measures for the Defense of the Western Hemisphere and Army Forces have been ordered to cooperate in the execution of these measures subject to the following:

g. Harbor Entrance Control Post will be prepared for the continuous operation, and will be given frequent tests, but will not maintain continuous operation until further orders".

b. On June 13, two (2) officers were assigned for duty at the Harbor Entrance Control Post, Fort Wadsworth.

c. On July 21, twelve (12) enlisted men were assigned to the same station.

d. On October 21, 1941, Headquarters, 2nd Coast Artillery District issued General Order #15, instructed in sub-paragraph 2 g., maintenance of the New York Harbor Entrance Control Post and the Delaware Harbor Entrance Control Post on a training basis and prepared for operation on a war basis in conformity with letter AG 660.2 (91341) HC-X, subject: Harbor Entrance Control Post, dated 2 October 1941

e. Prior to October 1941, the Navy began the construction of a Signal Bridge on the site subsequently used as the New York Harbor Entrance Control Post. This site is located on the southeast corner of old Fort Tompkins located on the highest point in Fort Wadsworth.

f. On October 11, 1941, the jointly operated Harbor Entrance Control Post began a system of ship identification, control of ship traffic and a procedure for ship reporting. The Navy became responsible for all traffic to and from the Signal Bridge and also for radio communications for harbor patrol vessels. The Army placed a Signalman Observer on the Bridge with duties as described in Inclosure J.

g. On November 27, gate vessels were placed in position at the anti-motor boat and submarine barrier which was anchored at Nortons Point - Hoffman Island - South Beach. With the declaration of hostilities on December 7, 1941,

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the Harbor Entrance Control Post went on a war footing.

h. On February 24, 1943, at a meeting of the Joint Army and Navy Planning Committee at Governors Island, it was decided to activate an additional two (2) Harbor Entrance Control Posts. One (1) at Fort Hancock to be designated as Harbor Entrance Control Post #1 and a second at Fort Tilden to be designated as Harbor Entrance Control Post #2. Operations at Harbor Entrance Control Post #1 began on May 1, 1943 and at Harbor Entrance Control Post #2 on August 6, 1943.

i. The relationship between the three (3) Harbor Entrance Control Posts was that of three (3) separate stations, each maintaining local shipping plots with full control of shipping in contiguous waters. General supervision remained with the main Harbor Entrance Control Post at Fort Wadsworth, but each Harbor Entrance Control Post was considered a separate installation of the Harbor Defenses and capable of independent action. Close liaison was maintained between the three (3) stations. General supervision was exercised by the Harbor Entrance Control Post, Fort Wadsworth as follows:

- (1) Control of the radar units (see inclosure "H").
- (2) Control of harbor patrols.
- (3) Coordination of reports from underwater detection devices.
- (4) Coordination of activities when firing "bring to" shots.
- (5) Clearance on matters pertaining to Coast Guard control of inner harbor traffic.

j. From 1941 to July 1943, the Duty Officers of the Harbor Entrance Control Post at Fort Wadsworth served as Watch Officers for the Commanding Officer, Fort Wadsworth; tactical unit - Ambrose Groupment. The Groupment Command Post was a separate installation than that of the Harbor Entrance Control Post and had a full complement of officers from the staff of the Fort Commander. Upon possibility of an alert condition, the Duty Officer at Harbor Entrance Control Post would alert the staff of Ambrose Groupment and submit to the Commanding Officer, Ambrose Groupment a brief summary of events leading to the alert of the station.

k. From July 1943 to February 1944, Ambrose Groupment redesignated C-1 maintained its own Duty Officers.

l. From February 1944 to October 1944, the Duty Officers were also responsible for the operation of C-1 Groupment Command Post. The Groupment station had tactical lines to three (3) rapid fire batteries located at Nortons Point, Swinburne Island and Fort Wadsworth.

m. From October 1944 to June 18, 1945 the Harbor Entrance Control Post operated as such.

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n. On 14 June 1945, at a meeting between representatives of the Coast Guard, 3rd Naval District and Harbor Defenses of New York, it was agreed that the operation of the Harbor Entrance Control Post and Advance Harbor Entrance Control Posts #1 and #2 would cease to function at 2400 on 18 June 1945.

SECTION II

1. PERSONNEL AND DUTIES.

At the time of its maximum operation, the Harbor Entrance Control Post consisted of four (4) officers and twenty five (25) enlisted men. The enlisted personnel was divided into one (1) Sergeant Major and four (4) Reliefs. Each relief consisted of Chief of Section, Signalman Observer, Plotter, Switchboard Operator, Clerk Typist and Messenger.

2. DUTIES OF OFFICERS. (See Inclosure "A" for Watch Roster).

a. TACTICAL:

- (1) Maintenance and operation of Control Post on a twenty four (24) hour basis.
- (2) Take prompt and decisive action to operate any Harbor Defense element in order to deny enemy action within the defensive coastal area.
- (3) Secures all information from the Navy pertaining to seaward defenses, evaluates and disseminates to Harbor Defense Command Post and Advance Harbor Entrance Control Posts.
- (4) Collects, evaluates and disseminates information secured from radar units, underwater detection devices, observers, (Army, Navy and Coast Guard) Examination and Patrol Vessels.
- (5) Represents the Commanding General, Harbor Defenses of New York at Fort Wadsworth.
- (6) Secures from Navy Operations Bulletin, information of Navy activities as they effect defensive measures of New York Harbor and disseminates to all interested Army agencies. (See Inclosure "G").
- (7) Maintains a plot of all ships approaching the entrance to New York Harbor.

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- (8) Reports to Harbor Defense Command Post and Advance Harbor Entrance Control Posts changes in status of Navy installations such as: patrol vessels, underwater detection devices, gate, anti-motor torpedo boat boom and submarine barrier.
- (9) Orders the Examination Battery to fire "bring to" or "destruction fire". (See Inclosure "M").
- (10) Exercises general supervision of Harbor Entrance Control Posts #1 and #2.
- (11) Advises and interprets to Navy personnel activities of the Army as pertains to the Defense of New York Harbor.
- (12) Duty Officer must also be thoroughly familiar with Message Center procedure, hydrography of New York Harbor, procedure for giving orders for artillery fire of gun batteries and to make tactical decisions as a Groupment Commander.

b. JOINT DUTIES WITH NAVY:

- (1) On determining whether or not the port should be closed.
- (2) Control of harbor traffic.
- (3) Investigates unverified signatures on underwater detection devices. (See Inclosure "D" and "E").
- (4) Investigates suspicious action of ships, unauthorized signals, explosions, fires, floating objects, etc.
- (5) Supervises control of shipping in prohibited, submarine telephone cable areas and mine fields. (See Inclosure "C" and "I").
- (6) Assists in clearance of friendly incoming vessels. (See Inclosure "F").

c. NON-TACTICAL DUTIES:

- (1) Arrange for clearance of water areas for target practice.
- (2) Exchange with Navy, information on target practice for shore batteries and Navy vessels.
- (3) Notify interested Army agencies of traffic conditions in Ambrose Channel for mine operations and target practice.
- (4) Advise interested Army agencies of expected storm conditions.

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3. DUTIES OF ENLISTED PERSONNEL.

a. Sergeant Major:

The Sergeant Major conducts the training of the enlisted personnel for their respective assignments during off-duty hours. He is the administrative noncommissioned officer, organizing fatigue duties, furloughs and pass rosters. He puts into operation, local defense measures of the station when ordered.

b. Chief of Section:

Responsible for the efficient operation of his relief. Codes and decodes messages and operates teletype and radio. Familiar with Message Center operation. He conducts training during watch hours as operations permit.

c. Clerk Typist:

Performs all typing for the station. Responsible for the logs and files. He assists the Chief of Section in the operation of the teletype and radio.

d. Switchboard Operator:

Has a knowledge of the operation of the switchboard BD 95 enabling him to make minor repairs. Has a thorough knowledge of the telephonic communications network of the Harbor Entrance Control Post.

e. Signalman Observer:

Has a knowledge of ship and plane identification and assists with transmission of messages by signal light, has a knowledge of international code flags, hydrography of harbor, navigation aids and navigation traffic rules. Is thoroughly versed in the handling of Azimuth instruments. (See Encl. "J").

f. Plotter:

Records data from radar stations and maintains the continuous ship plots. Knows the Grid Systems used, hydrography of harbor, ship identification procedure. (See Inclosure "K").

g. Messengers:

Acts as a runner between installations of the Harbor Entrance Control Post.

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4. RECOMMENDATIONS: The following Table of Organization is recommended:

a. OFFICER PERSONNEL:

Senior Army Officer - Lt Colonel
Four (4) Duty Officers - Majors

b. ENLISTED PERSONNEL:

One (1) Sargeant Major - Technical Sergeant
Four (4) Chief of Sections - Sergeants
Four (4) Clerk Typists - Corporals
Four (4) Switchboard Operators - Privates First Class
Four (4) Signalman Observers - Corporals
Four (4) Plotters - Corporals
Four (4) Messengers - Privates First Class

SECTION III

OPERATION

1. MISSION.

a. The mission of the Harbor Entrance Control Post is to collect, evaluate and disseminate information of activities in the defensive sea area, control of merchant ships in the defensive coastal area, and to take prompt and decisive action to operate elements of the Harbor Defense to deny enemy action within the defensive coastal area.

b. The Harbor Entrance Control Post performed two (2) fundamental tasks during its operation.

- (1) Identify all ships proceeding inbound, and determine the character as to whether friendly, suspicious, or hostile; to pass friendly ships, and stop suspicious ships for further examination and have them proceed to Examination Anchorages under cover of shore batteries when deemed necessary. (See Inclosure "F").
- (2) Deny the enemy an opportunity to launch a surprise attack; accomplished by the continuous operation of underwater detection devices, an effective screening operation in the clearance of incoming ships, close vigilance for sabotage activities, and coordination of information on enemy activities as received from agencies of the Harbor Entrance Control Post.

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2. TACTICAL ORGANIZATION.

a. ARMAMENT.

- (1) The Army controlled an Examination Battery at Sandy Hook from 1941 to May 1943, which was at a later date assigned to Harbor Entrance Control Post #1. A 90 millimeter Battery located at Nortons Point, Brooklyn, was then assigned to the Harbor Entrance Control Post, Fort Wadsworth. In addition, the Harbor Entrance Control Post controlled searchlights at Nortons Point, Fort Wadsworth, Hoffman and Swinburne Islands. The Duty Officer was also authorized to use any element of the Harbor Defenses of New York to repel enemy attack. (With respect to the use of mines, see Inclosure "L").
- (2) The Navy controlled six (6) harbor patrol vessels, one (1) Guardship, two (2) Examination Vessels at Sandy Hook and Rockaway Inlet, two (2) gate vessels and two (2) small launches for gate patrols. All patrols were equipped with machine guns, depth charges and sound gear.

b. DETECTION DEVICES.

- (1) The Army received reports from the Mine Command of Mine Arming and Hydrophone Signatures, which could not be verified as being caused by surface vessels. (See Inclosure "D"). Secondly, the Army received reports from three (3) radar stations located at Forts Hancock, Tilden and Navesink, New Jersey.
- (2) The Navy utilized magnetic indicator loops, sono-radio buoys, sound equipment on all Navy vessels and a radar unit located at Fort Hancock.

c. OBSERVATION.

- (1) The Army utilized observers on the Harbor Entrance Control Post Bridge, at the Examination Battery and Searchlight positions. Reports from observers from stations of Harbor Defense elements were investigated and evaluated at the Harbor Entrance Control Post.
- (2) The Navy utilized observers aboard the Guardship, patrols and examination vessels. In addition, the Navy investigated and screened reports from the Coast Guard Observation Stations along Long Island and New Jersey Shores.

d. HARBOR BARRIERS.

An anti-submarine net and anti-motor torpedo boat boom were installed

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across inner harbor Nortons Point - Hoffman Island - South Beach. Passage of ships was effected by means of two (2) Gates.

e. COMMUNICATIONS:

- (1) The Army had tactical telephone lines to Harbor Defense Command Post, Harbor Entrance Control Posts #1 and #2 and Examination Battery. The following stations were connected by an executive system, known as the Hot Loop; all radar stations, all Harbor Entrance Control Posts and Harbor Defense Command Post. The Harbor Entrance Control Posts, Harbor Defense Command Post and Gun Batteries were also organized into a radio net.
- (2) The Navy had telephone communications with Harbor Entrance Control Posts #1 and #2, Third Naval District and Coast Guard Barge Office. The Coast Guard Observation Stations along Long Island and New Jersey were connected to Harbor Entrance Control Post by means of a tie-line to the Rockaway Coast Guard Observation Station. The Navy had radio communications with all patrols and vessels and Harbor Entrance Control Posts #1 and #2.

3. FILES, LOGS AND REPORTS.

a. FILES - Files were maintained in the Harbor Entrance Control Post on the following subjects: Operations orders, intelligence reports, submarine notices and orders, radar operation, Navy memoranda, mine operation, and codes.

b. LOGS - Daily log, which included a summary of all incidents, orders, radio log, plotters log. The last included reports from all radar stations on targets and their identification.

c. Reports daily given to Harbor Defense Command Post and Advance Harbor Entrance Control Posts. Enemy submarine activities as extracted from the Daily Navy Bulletin, movements of friendly ships as extracted from the Navy Bulletin. (See Inclosure "G"). Status of harbor patrols and underwater detection equipment.

d. CHANNEL TRAFFIC - This report consisted of movements of convoys entering and leaving the harbor. (Also disseminated to Mine Command).

SECTION IV

A. PERSONAL COMMENTS

1. PROBLEMS ENCOUNTERED.

a. The Army Examination Battery was often unable to fire a

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"bring to" shot on a target due to the presence of friendly ships in the immediate area. The reason for the presence of these friendly ships was that the traffic at this harbor was extremely heavy. Secondly, when a shot was ordered, the ship had already entered the Ambrose Channel.

b. An error in identity of targets was occasionally caused by poor visibility and ships being closely grouped while being challenged.

c. During fog conditions, fire by shore batteries could only be effective by the use of radar. Identity of a target by a shore battery was not possible due to lack of IFF Equipment and secondly, the multiplicity of ships coming in together would cause the target to blend with others on the radar screen.

d. Fog conditions also created the problem of the Guardship being unable to challenge until the ship was close by. In view of the fact that the ship was continually underway while being challenged, it would already be in Ambrose Channel before challenge operations would be completed.

e. Harbor Patrol boats of the eighty-three (83) foot Coast Guard type were of limited service due to their unsuitability relative to the rough weather conditions existing in the outer harbor. During the winter months, patrols would be compelled to leave their regular stations and seek shelter at Sandy Hook or Rockaway Inlet for approximately 50% of the time.

f. In view of the voluminous traffic of New York Harbor, the magnetic loops would often be of doubtful value due to the multiple loop crossings.

g. Some buoys were of limited value as they picked up extraneous noises from the ocean bottom. Again, due to the volume of traffic the propeller beats of friendly traffic would limit observation on enemy submarine activity. Secondly, due to rough weather conditions only 75% of the buoys would be operative at one time.

h. During periods of zero visibility, ships often passed by the Guardship without being detected and challenged.

i. Despite repeated notices to pilots, ships were often anchored in submarine cable and mine areas resulting in damage to these cables. Methods of contacting these ships by Signal Lamp was often slow and uncertain, losing much time in warning these ships.

j. Repeated difficulty was encountered in denying use of prohibited ~~sea~~ areas to small harbor craft, especially fishing boats.

k. Sea units assigned were inadequate to make a rapid reconnaissance of a locality within the defensive coastal area. Example: (Radar reported stationary target off shore at Asbury - local patrols took two (2) hours to arrive at area of target and make its report).

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B. RECOMMENDATIONS

1. CHALLENGING AND CLEARANCE OF SHIPS.

a. It is recommended that the challenging and clearance of ships be revised to include the following:

- (1) Guardship be equipped with radar and IFF Equipment in order to enable it to challenge incoming ships during all types of weather conditions, and determine their identity before the vessels enter Ambrose Channel.
- (2) The Guardship have a fast motor launch in its immediate control to intercept any ship going by or not answering the challenge during poor visibility.
- (3) A specific challenge water area would be designated located immediately south of Ambrose Channel entrance. The ship to be challenged would be the only one permitted to navigate in the area. In the event it was necessary to stop the ship, this procedure would enable the target to be easily designated, the firing area would be free of other ships and the possibility of a misunderstanding of a designation of a target would be eliminated.
- (4) Military personnel should be placed aboard the Guardship with direct contact with the examination battery in order to direct artillery fire.
- (5) An indoctrination course should be made available to Navy officers in Army methods of assigning targets and fire control.

b. The Examination Battery should be equipped with IFF Equipment as well as radar to enable the Battery Commanders to differentiate between friendly and hostile ships when it becomes necessary to file with radar control methods.

c. All friendly war ships and merchantmen should be equipped with IFF Equipment to enable them to answer a challenge from either the Guardship or shore batteries.

d. Officers being assigned to the Harbor Entrance Control Post should be previously sent to an Indoctrination School for Harbor Entrance Control Post duty.

e. For outer New York Harbor patrols, more seaworthy vessels than those used should be assigned. In addition, the Harbor Entrance Control Post have available air reconnaissance elements.

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- f. The Radar Station should be sufficiently close to the Harbor Entrance Control Post to permit installation of the planned position indicator in the station proper.
- g. Dual plot boards should be abolished and a joint board used. This would insure the exchange of information accurately and promptly and also the more efficient coordination of all detection devices.
- h. Special patrols should be assigned to cover submarine telephone cable area and mine fields with radio communication to the Harbor Entrance Control Post.
- i. The main Harbor Entrance Control Post should be located nearer the outer harbor and on a good elevation point. Navesink, New Jersey is recommended.
- j. MDP 1 (a) should be revised to include:
- (1) Provisions for a meeting of Army and Navy commanders for local interpretation of the applicable provisions.
 - (2) Paragraphs 24 and 25 to be revised so as to make clearer the situations in which destruction fire is mandatory.
 - (3) Additional instructions should be included for the challenging of ships by IFF Equipment.

SECTION V .

INCIDENTS EXTRACTED FROM JOURNAL

1. On 20 October 1943, two (2) Mine Sweepers failed to stop upon orders of the Guardship. Two (2) "bring to" shots were fired by the Examination battery at Sandy Hook. Ships did not stop. In view of the fact that the Mine Sweepers were expected, 3rd Naval District issued orders to the Navy Officer, Harbor Entrance Control Post to request discontinuance of fire from the shore batteries. The Mine Sweepers were challenged by the Gate Vessel and received a proper reply.
2. On 20 October 1943, "bring to" shot was fired on a merchantman. The freighter stopped for a second and then resumed its course at a slow speed. Harbor patrol intercepted and ordered the ship to return to the Guardship for proper clearance. It was explained by the Master of the freighter that he resumed his course in order to maintain steerage.
3. The Guardship fired two (2) "bring to" shots at a YF. Four (4) Additional "bring to" shots were fired by Examination Battery at Sandy Hook, with no apparent effect. The YF. was intercepted by a patrol and ordered back to the

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Guardship for clearance. Destruction fire was not ordered in this situation upon the recommendation of 3rd Naval District which was aware of the movement of this YF, although a notice did not appear in the Naval Bulletin. (11 Dec 43).

4. A DE. failed to stop upon orders. The Examination Battery was unable to fire "bring to" shot as the field of fire was unsafe. The patrols were ordered to intercept. However, the Signal Station at Fort Wadsworth managed to raise ship and receive a proper reply to the challenge. (19 December 1943).

5. 20 December 1943, 2 DE's failed to answer the challenge and stop. "Bring to" shot was fired. Properly identified.

6. 24 December 1943, Harbor Entrance Control Post received warning of a possible bombing by German ship-borne planes. Source FBI.

7. 3 January 1944, USDD exploded in the outer harbor. The Duty Officer at Fort Wadsworth alerted Army hospitals at Fort Hancock and Fort Wadsworth. All patrols were ordered to the scene. All Army observers were ordered to search for and report survivors in the surrounding water area.

8. 6 January 1944, SC failed to stop upon orders of Guardship. "Bring to" shot was fired and halted vessel.

9. 22 January 1944, tanker stopped after receiving a "bring to" shot. Patrol intercepted her immediately after firing of shot and merchantman was ordered to return to Guardship.

10. 5 February 1944, PYC failed to stop and "bring to" shot was fired by Examination Battery at Fort Hancock. However, Harbor Entrance Control Post #1 challenged the PYC and received a proper reply.

11. 31 May 1944, Oiler failed to halt upon orders of Guardship. Two (2) "bring to" shots were fired. Identified.

12. 15 September 1944, a PT craft traveling at approximately thirty (30) knots went by the Guardship without proper reply to the challenge and halting for examination. The craft was halted by a "bring to" shot fired by the Examination Battery at Nortons Point. Gate Patrol then intercepted craft and ordered her to return to Guardship for proper clearance.

13. The Journal also contains a number of incidents in which ships were prevented from going aground by warning them through means of searchlights located along Rockaway shores. This occurred during zero visibility. The Harbor Entrance Control Post was able to warn these ships of their incorrect courses by the information secured from radar units.

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SECTION VI

INCLOSURE "A" - Duty Roster.

INCLOSURE "B" - Action on Submarine.

INCLOSURE "C" - Action on Vessels in Prohibited Areas.

INCLOSURE "D" - Action on Mine Arming and Hydrophone Signatures.

INCLOSURE "E" - Action on Sound Searches.

INCLOSURE "F" - Challenging Procedure for Ships entering New York Harbor.

INCLOSURE "G" - Use of Navy Operations Bulletin

INCLOSURE "H" - Radar Procedure for Plotting and Tracking Vessels entering
New York Harbor.
Annex.

INCLOSURE "I" - Ships Anchored in Mine Fields and Submarine Telephone Cable
Area.
Annex.

INCLOSURE "J" - Duties of Army Signalman Observer.

INCLOSURE "K" - Duties of Army Plotter.

INCLOSURE "L" - Action on Mines.
Annex 1.
Annex 2.

INCLOSURE "M" - Examination Batteries.

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INCLOSURE "A"

DUTY ROSTER

1.	<u>0300 - 1600</u>	<u>1600 - 2400</u>	<u>2400 - 0300</u>
Jan 1	A	B	C
2	A	B	C
3	D	A	B
4	D	A	B
5	C	D	A
6	C	D	A
7	B	C	D
8	B	C	D
9	A	B	C
10	A	B	C
11	D	A	B
12	D	A	B
13	C	D	A
14	C	D	A
15	B	C	D
16	B	C	D
17	A	B	C
18	A	B	C
19	D	A	B
20	D	A	B
21	C	D	A
22	C	D	A
23	A	B	C
24	A	B	C
25	D	A	B
26	D	A	B
27	C	D	A
28	C	D	A
29	B	C	D
30	B	C	D
31	A	B	C

Code	A	Major	N
	B	Capt	L
	C	Capt	G
	D	Capt	H

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INCLOSURE "A" (Continued)

2. Officer will be on standby duty for eight (8) hours following his scheduled watch. During standby duty he will not leave the post, keep the Duty Officer advised of his whereabouts at all times and be available for emergency duty within ten (10) minutes.

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ENCLOSURE "B"

SUBJECT: Action on Submarines.

1. All information on the arrival of submarines secured from the Naval Operations Bulletin or verbally from the Third Naval District is to be disseminated in code to HENNY immediately.
2. All officers are to become familiar with submarine sanctuaries as given by Naval memoranda.
3. A submarine operating outside of a sanctuary whose movements are not covered by an allied submarine notice, and is not escorted by an allied warship, bears the burden of establishing its friendly identity. If the submarine fails to establish its identity to the HZCP agencies, "Destruction Fire" will be ordered without delay.
4. A submarine escorted by an identified allied warship will not be attacked.
5. A submarine is definitely a major war vessel and must conform with the channel procedure as established for major war vessels by the HZCP. A submarine operating submerged in the inner or outer harbor will be assumed to be hostile.
6. The course for submarines entering New York Harbor is as follows:
Must be surfaced at Buoy I thence to Gedney Whistle Buoy, past the Guardship and through Ambrose Channel.
7. An unexpected and unescorted friendly submarine upon entering the harbor will display the required recognition signal upon being challenged. If she fails to display the signal and fails to stop upon being ordered she will be assumed hostile.
8. Capabilities of enemy submarine are as follows.
 - a. Lay mines in channel.
 - b. Small commando raids against coast defense installations.
 - c. Land saboteurs and spies.
 - d. Reconnaissance both for weather conditions and shipping.
 - e. Blocking of channels by wrecked submarines.

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ENCLOSURE "C"

SUBJECT: Action on Vessels in Prohibited Areas.

1. The responsibility of keeping privately owned craft out of the areas "closed to navigation" is a function of the HECF.

2. When HECF observes or is informed that ships or craft are within those areas it will initiate the necessary action to have them removed.

3. The Army Duty Officer will notify the Navy Officer of the location of the craft and its direction. If inbound, the craft will be intercepted by the most suitable patrol and ordered to go to the nearest Examination Vessel. The patrols will report to the HECF by radio the craft number or hoist and to which Examination Vessel she has been ordered. If the craft is outbound, it will be intercepted by a Patrol and sent back to the appropriate Examination Vessel. If it is not possible to intercept the craft by a Patrol, every effort will be made to identify the craft by Shore Observation and report made to the Examination Vessel so that they may apprehend the craft upon its return. If the craft is fishing or operating in the areas "closed to navigation" a Patrol will be dispatched to order the craft out of the area. If no Patrol is available, a request is sent to the Coast Guard Station at Sandy Hook or Rockaway to dispatch a boat. The number or other identification of the fishing boat will be secured and given to the Examination Vessel so that the captain of the boat may be questioned and examined upon return.

4. The Army Duty Officer will endeavor to evaluate the purpose of the presence of a craft in prohibited area, and if he has reason to believe that the vessel is suspicious he will request the Navy to have the suspicious vessel apprehended and referred to the Examination Vessel for examination and then have it escorted to the dock at Forts Hancock or Tilden for questioning by the S-2 Section, HONI.

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ENCLOSURE "D"

SUBJECT: Action of Mine Arming and Hydrophone Signatures.

1. During periods of poor visibility or darkness when the cause of Mine Arming and Hydrophone Signatures cannot be determined by the Mine Command's Observation Stations, the Casemate Operator will request, by tactical phone from the HECF, information regarding the presence of authorized vessels in areas where mines are being armed or signatures recorded.
2. The HECF Duty Officer will ask the Navy to radio the nearest patrol vessel for information on the presence of ships in the subject area.
3. The Radar Unit will be ordered to sweep the subject area to determine whether or not there is a surface vessel there.
4. In those cases where the arming or signatures are taking place in the channel, the Navy Log of vessels leaving the gate and the Guardship log of incoming vessels will be checked to determine whether a ship is in the channel. If it is determined that the ship is in the channel, its general location can be determined by an estimation of its speed and time of departure. The estimated position can then be compared with the location of the mine arming or hydrophone signature.
5. Failure to locate a vessel in the area by means of patrols, logs, visual observation or Radar, units will necessitate a request to the Navy for a sound search. During the sound search, HDMY will be advised of all action being taken. The Duty Officer will also coordinate with the Advanced HECF's on reports of signatures and/or arming as received by their respective command posts.
6. In those instances where a Hydrophone signature is verified, the Casemate will be advised of the class of ship.

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"ENCLOSURE "E"

SUBJECT: Action on Sound Searches.

1. The Magnetic Indicator Loop is the first underwater detection barrier to be crossed by an inbound vessel. The Navy is particularly interested in verifying that all signatures are made by a surface vessel. All loop crossings are broadcast by the Loop Station to Loop Patrols for verification. When Loop Patrols are unable to verify the crossing with the presence of a ship in the area, efforts are made to verify the signature by visual observation from the shore stations, Navy Radar is also ordered to sweep loop. When all three means have failed, the Navy will advise the Army of the unverified Loop Signature giving the location of the loop by means of its number.

2. As soon as it is known that Navy Patrols are unable to verify the signature, the Army Officer will first assign a Radar unit to sweep the Loop area. Secondly, coordinate with the Advanced HSCP's for visual observation and reports of Hydrophone signatures or mine armings.

3. Upon failure to verify the signature by all agencies of the HSCP, the Navy will order a sound search by the nearest patrol.

4. The Gate Vessel and Guardship will be alerted and its sound gear put into operation.

5. The Swinburne Island Decussing Range will operate all coils and report any crossings at once.

6. Upon the first indication of suspicious activity in the channel, the Army Officer will consult with the Navy Officer upon the advisability of closing the Gate.

7. During darkness, searchlights will be alerted and held in readiness for expected action.

8. A Radar plot of all vessels in the harbor will be made and an effort to identify the targets.

9. Alert Examination Gun and Range Section and advise the Duty Officer of the situation.

10. The Harbor Defense Control Post will be kept advised of all actions taken both by Army and Navy.

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ENCLOSURE "F"

SUBJECT: Challenging Procedure for Ships Entering New York Harbor.

1. In order to take coordinated action with the Navy in situations where ships fail to answer the challenge and/or to stop when ordered, it is mandatory that the Army Officers understand the general procedure applying to the challenge of ships entering New York Harbor.

2. a. War ships:

- (1) War ships are challenged directly by the Guardship with the minor or major challenge. Advanced HECF #1 and #2 will institute challenging proceedings if the duty officer believes the ship was not challenged by the Guardship. An incoming war ship is also challenged by the Gate Vessel or Signal Station, HECF, Fort Wadsworth prior to its entrance in the Gate. When a ship answers challenge properly, the information is broadcast via radio to the HECF.
- (2) If a war ship fails to answer the challenge, she is ordered to halt, and is then examined by the Guardship to determine her status. The Guardship keeps the HECF's advised of the situation by radio. At this point, the Army Duty Officer contacts HECF #1 and coordinates all necessary activity.
- (3) If the ship fails to halt, the Guardship has authority to fire a shot across the bow, and will at the same time notify Advanced HECF #1 by telephone and broadcast information by radio to all stations. The Duty Officer, HECF #1 will then order a "bring-to" shot. The Duty Officer at Fort Wadsworth will alert the Gun Section (Bty. 19) to "stand-by" to fire. He will advise HECF #1 of further action to be taken by the Navy, reference interception of the ship by patrols or any other instructions received from 3rd Naval District.

b. Merchantmen:

- (1) Upon the arrival of a Merchantman an Examination Vessel with pilots aboard approaches the ship and a pilot boards the merchantman. The pilot examines the ship's papers and satisfies himself as to the crew, cargo, etc. When the pilot is satisfied, he orders the Master to fly the J letter hoist. As the ship approaches the Guardship,

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ENCLOSURE "F" (Con't)

- (1) the pilot will also send to the latter, his pilot's number which is known only to himself and the Guardship personnel. If the pilot is doubtful, he will ask the Master to fly the Secret Recognition Signal (Letter-Number-Letter) held by the ship. The Guardship verifies this signal with records in its possession, and if correct, it will signal "correct" to the pilot. If the pilot is suspicious, he will signal the Guardship by having ship fly Y-Z-X. The Guardship will then halt the Merchantman and direct her to an Examination Anchorage where she will be boarded by an armed crew. This procedure will be broadcast to the HECF by radio. The Duty Officer will immediately alert the entire Examination Battery and coordinate with HECF #1 all activities.
- (2) If the ship fails to answer the challenge properly and/or to halt, the action to be taken will follow same as that of war ships.

c. Small Craft:

- (1) Private boats are not permitted to navigate in Ambrose Channel. Other entrances to New York Harbor are well defined in Coast Guard Instructions and clearance is effected by Examination Vessel "A" at Sandy Hook or "C" at Rockaway Inlet. The boats are identified by means of hoist assigned to them by the Coast Guard. Where necessary, the Examination Vessels will check the Coast Guard passes of the individuals aboard the boats.

3. In many instances where ships have failed to halt, it has been found impossible to fire a "bring-to" shot due to poor visibility or the presence of friendly craft in the area. In these situations, the information is immediately dispatched to a patrol to intercept the incoming vessel in Ambrose Channel where she is halted, boarded and examined.

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ENCLOSURE "C"

SUBJECT: Use of Navy Operations Bulletin.

1. The Navy Operations Bulletin, classified Secret, arrives daily. The Army Duty Officer will extract information to be sent to HDNY, Advanced HECF's and any other interested Army agencies.

2. The following information is to be forwarded daily:

a. Arrivals - to be forwarded two(2) hours prior to scheduled arrival. The information will consist of the number and class of ships.

(1) War ships, DE or larger, all amphibious craft, PT's, troop transports.

(2) Submarines (submarine notices will be forwarded immediately and in Secret code.

b. Departures - Destination of departing ships will not be given unless within the defensive sea area. Notices sent two (2) hours prior to expected time of departure.

(1) Amphibious craft, PT's and groups of small boats, such as: MTL's.

(2) Submarine notices to be sent immediately and in secret code.

c. Enemy submarine activity forwarded in code immediately.

d. Unusual ship activity in the inner or outer harbor, such as: shakedown-cruises, cruises, calibrating ship's compass, battle exercises and firing practices; to be forwarded immediately in clear language over tactical phone.

e. Hydrographic notes of the bulletin will be screened and information pertaining to the harbor evaluated and forwarded, such as: location of wrecks, unexploded DC's dropped by friendly warships, removal of buoys, dredging operations, established new anchorages, etc.

f. Naval orders as pertains to the control of fishing or navigation in defensive coastal area.

g. Special patrols ordered by the Navy for duty in the defensive coastal area, such as: anti-submarine patrols.

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3. Spot reports will also be forwarded as pertaining to weather conditions, amount of traffic in channel with reference to target practice, etc.

4. The bulletin is to be checked continuously with reports of Radar units to determine whether large movements approaching NY Harbor are scheduled arrivals.

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ENCLOSURE "H"

SUBJECT: Radar Procedure for plotting and tracking vessels entering N. Y. Harbor.

1. The duty officer at HECF, Fort Wadsworth has the responsibility of coordinating the activities of the three radar units 201, 202 and 203.

2. During his watch he will see that the radar operators comply with letter Hq. HDNY 29 March 1945, Subject: Reports from 201, 202, 203. (see annex)

3. Units 201 and 202 will operate with 30,000 yd. scale, unit 203 with 10,000 yd. scale. Every hour unit 203 will conduct a sweep with its maximum scale.

4. Radar operators will not discontinue surveillance of targets until ordered by the plotter at HECF.

5. Radar operators will become familiar with location of the magnetic indicator loops and give a reading of a target as it crosses the loop.

6. Readings on target positions will be given every five minutes (range - yards, azimuth degrees).

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ANNEX TO ENCLOSURE "H"

SUBJECT: Reports from 201, 202, 203.

1. Target reports from 201, 202, and 203 will include the following data as it becomes available:

- a. Size
 - b. Number
 - c. Unusual courses.
 - d. Inbound or outbound targets which become stationary or reduce speed.
 - e. Targets changing courses.
 - f. Target resolved into more than one.
 - g. Special mention of high speed, unusual size, and large groups.
 - h. Targets which are nearing dead area, or are lost, or are in dead areas.
2. a. Reports on targets will be made to the HECF's every 5 minutes.
- b. The following form will be used for initial reports:

<u>Form</u>	<u>Example</u>
Unit	Two Zero One
Target	New Target
Azimuth	Three Three Zero
Range	Twenty-Four Thousand
Size and Number	Single, Medium
Other Data (If any)	High Speed

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ANNEX TO ENCLOSURE "H" (Con't)

- c. Examples of follow-up reports are shown below.

<u>Form</u>	<u>Example</u>
Unit	Two Zero Three
Target Description	Target Able
Azimuth	Three Hundred
Range	Fifteen Thousand Five Hundred
Other Data (If any)	Split into 2 targets (Abrupt change in course) (Reducing speed) (Running parallel to loops) (Appears stationary) (Increased speed rapidly) (Very large group) (Very Small) (Very large) (Disappearing into land mask)

3. Reports of the following receptions will be made to the HECF's and HDCF's as they occur:

- a. Cockerel heard, by code number.
- b. Interference and Jamming.
- c. Weather disturbances.
- d. Shell splashes.
- e. Any other unusual reception.

4. The following routine reports will be made to the HECF's and HDCF's:

- a. Changes in State of readiness, i.e. "Stand-by", "On the Air", "Alert", "Shut-Down", and "Out of Service".
- b. Communication failures and action taken.
- c. Failure of tower lights and action taken.
- d. Power failures and action taken.

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ENCLOSURE "I"

SUBJECT: Ships Anchored in Mine Fields and Submarine Telephone Cable Areas.

1. Object: To prevent, with every means possible, ships from anchoring in mine fields or submarine cable areas.

2. Action to be Taken - When a ship appears to be anchoring or has already anchored in a prohibited area, notify Navy Officer and explain to him action desired in the situation.

A. Ship in Submarine Telephone Area:

- (1) Request Navy duty officer to notify ship (see annex for type message)
- (2) Call post operator and request that she notify you immediately if cable alarm sounds.
- (3) If anchor is fouled notify Artillery Engineer and confer on a plan to be taken (see annex for message to ship.)
- (4) Notify S-2 HADNY whether or not damage is caused.

B. Ship in Restricted Area: (Mine Fields)

- (1) Telephone Mine Casemate and request that ship be plotted to determine position of ship relative to mine cables. If in mine area ask Navy officer to notify ship.
- (2) If anchor is fouled notify commanding officer Mine Battery and confer with him on action to be taken.
- (3) Notify S-2 HADNY whether or not damage is caused.

C. If a ship is dragging, heading for submarine cable area, and can't be raised, try:

- (1) Calling nearest Coast Guard Patrol (Gravesend).
- (2) Get Gate Patrol down to area.
- (3) Send out HF-2.

D. If the cable is damaged, get an officer aboard ship at once. Get affidavits from Navy observers, definitely placing that vessel in area at the time of cable damage. Instruct officer boarding ship to secure extract of ship's log at time of incident and information needed in par. 4.

3. Slipping Anchor - Where it is necessary for a ship to slip its anchor request ship's captain to mark the location with a marker buoy.

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ENCLOSURE "I"

4. Reports - Spot telephone reports, confirmed by a written report will be forwarded to the HDNY in each such case. Written reports will include:

- A. Time of anchoring.
- B. Visibility.
- C. Weather.
- D. Name of Vessel.
- E. Hoist.
- F. Type of Vessel.
- G. Nationality of Vessel.
- H. Owner of Vessel.
- I. Whether or not there was a pilot aboard, or tugs at the vessel, and, if so, the name of the pilot or tug.
- J. Location of the anchor of the vessel. (If this position cannot be ascertained, a distance of five times the water depth of the area, in front of the bow of the vessel, will be the assumed location of the anchor).
- K. Reason for the anchoring.
- L. Damage to cables or mines, if any.
- M. Time the vessel left the area.
- N. Navy Duty Officer.
- O. Army Duty Officer.

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ANNEX TO ENCLOSURE "I"

1. These messages approved for transmission. Appropriate message is to be written in the OP and given to the bridge. Do not deviate from the standard messages unless approved by the Navy Duty Officer.

2. Submarine Telephone Cable Area:

YOU ARE IN RESTRICTED AREA. DO NOT ANCHOR BETWEEN FT. LAFAYETTE AND BUOY 20A.

(When ship is about to anchor.)

YOU ARE ANCHORED IN RESTRICTED AREA BETWEEN FT. LAFAYETTE AND BUOY 20A. RAISE ANCHOR CAREFULLY. DO NOT DRAG. IF FOULED DROP ANCHOR AND NOTIFY US.

(When ship anchored in the area.)

3. If Cable Alarm Rings:

DROP ANCHOR. DO NOT RAISE ANCHOR EXCEPT BY OUR PERMISSION. ARMY WILL FREE CABLE.

4. Restricted Area (Mine):

YOU ARE IN RESTRICTED AREA. RAISE ANCHOR CAREFULLY. IF FOULED DROP ANCHOR AND NOTIFY US.

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ENCLOSURE "J"

SUBJECT: Duties of Army Signaller Observer.

1. Keep continuous surveillance over Mine Fields and submarine telephone cable areas and report promptly to Army officer, ships loitering or anchored in areas.
2. Report OUTBOUND movements of:
 - a. Submarines (SS), Torpedo boats (PT).
 - b. All types of LANDING CRAFT LCI-LCT-LCM-LCPL-LCV.
 - c. All vessels flying Army Pennants, and all private craft.
 - d. General - Whenever two or more small craft move out in a unit - (Do not include GC patrols or Navy minor or major warships.)
3. Report observation of:
 - a. Pyrotechnic signals (1) color, (2) duration of burning (3) direction of travel of signal, (4) Approx. direction and range from bridge.
 - b. Transmission of messages by signal lamps or other signalling devices from unauthorized stations.
4. Report presence of unusual floating objects - barrels - cases - debris.
5. Report suspicious acts of merchant vessels - objects overboard - unusual course.
6. Report gunshot explosions - fires, time, location, duration and source.
7. Report approach of unrecognized personnel towards station.
8. Keep guardship under surveillance for signals.
9. Assist Navy in sending and receiving messages.

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INCLOSURE "K"

SUBJECT: Duties of Army Plotter.

1. The Plotter will receive from the radar units, via executive loop, reports of information as given by the radar screen. As each target is reported, the Plotter will assign it a code letter, the letter "A" is assigned to the first target after 2400 of each day. When plotting the course on the board, the target will be designated by the following code group; the first figure will be the last number of the radar unit. The second will be the code letter, and the third, the time plotted. Example: Unit 203 reports a target at 1402, the code group is 3-N-1402.

2. Readings of targets will be secured every five (5) minutes. However, where deemed necessary, more frequent readings will be obtained. These readings of targets will be given in polar coordinates (range - yards, azimuth - degrees) center of origin being the location of the radar unit.

3. Plots will be continued until ship is identified by the Navy or until the Duty Officer authorizes the target to be dropped.

4. During periods of zero visibility and storms, inbound targets will be tracked until halfway in Ambrose Channel.

5. The Plotter will compare reports of all units in order to determine whether more than one unit is carrying the same target. If that situation occurs, he will then determine which unit is more suitable for carrying the target and issue orders accordingly.

6. The Plotter will maintain a cross reference of targets with the Navy Plotter so as to have records which agree insofar as proper identification is concerned.

7. The following situations are to be reported to the Duty Officers:

- a. Targets reported by Navy not picked up by Army.
- b. Unusually large or fast moving targets.
- c. Large movements of three (3) ships or more.
- d. Ships not entering harbor past the Guardship.
- e. Unverified signatures reported by Navy Plotter.
- f. Guardships failure to report ships after they have passed abeam.
- g. Units going out of operation why and for how long, send identical

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INCLOSURE "K" (Continued)

information to Message Center for transmission to all stations, also enter this information on the log and the operations chart. The same procedure will be followed when the unit returns to operation.

- h. Jamming or interference.
- i. Communication failure.
- j. Ships not taking prescribed course for entering harbor.

k. Targets approaching loops and swinging out again will not be dropped, although they have crossed loops until it has definitely been established they are outbound.

- l. Targets that are lost.

8. All men on duty will familiarize themselves with the map and the following landmarks:

- a. Patrol ships.
- b. Guardship and Examination Vessel.
- c. Coastal Defense Area.
- d. Sono Buoys.
- e. The location of Radar Units.
- f. Channels and Buoys (Fairway).
- g. Grid designations Army - Navy - Polar - Geographical.
- h. Loops.
- i. Hydrophones.
- j. Restricted - Prohibited Areas.
- ~~k. Ambrose Lightship.~~
- 1. Harbor Entrance Control Post Stations.

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ENCLOSURE "L"

SUBJECT: Action on Mines.

1. All HECF officers will be guided by two documents on this subject:
 - a. JOINT AGREEMENT RELATING TO CERTAIN PHASES OF THE OPERATION OF CONTROLLED SUBMARINE MINES IN NEW YORK HARBOR dated January 12, 1942, signed by Rear Admiral Adolphus Andrews and Brigadier General R. E. Harines. (See Annex 1)
 - b. Letter Hqs. Adjutant General's Office dated February 14, 1942 subject: Suggestions for Use of Controlled Mines during War. (See Annex 2)

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ENCLOSURE "L" (Annex 1)

Joint Agreement relating to certain phases of the operation of controlled Submarine Mines in New York Harbor.

1. The Commanding General, New York-Philadelphia Frontier Defense Sector and the Commandant, Third Naval District, jointly agree to the following procedure governing the operation of controlled submarine mines in New York Harbor.

a. Submarine mines may be set for contact firing under the authority of the Commanding General, Harbor Defenses of Sandy Hook when:

(1) Contact with hostile vessels has been made in the part of the approaches to New York constituting the Defensive Coastal Area or when hostile vessels are known to be operating in that area. Under this condition the Commanding General, Harbor Defenses of Sandy Hook will immediately notify the Commandant, Third Naval District, through the New York Harbor Entrance Control Post, which groups of mines have been armed for contact firing.

(2) Whenever the Port of New York has been closed and upon prior joint concurrence by the Commanding General, New York-Philadelphia Sector, and the Commandant, Third Naval District.

(3) At night or under conditions of low visibility by day and upon prior joint concurrence by the Commanding General, New York-Philadelphia Sector, and the Commandant, Third Naval District.

2. Except when indications or enemy operations are such as to justify a risk of possible destruction of friendly vessels, a period, not to exceed two hours, will be allowed between the time the decision is taken to set mines for contact firing and the time this decision is executed. During this time shipping in the vicinity will be warned or brought under control. The Navy will inform the Commanding General, Harbor Defenses of Sandy Hook, when this has been accomplished.

3. Whenever the conditions requiring any portion of the mine fields to be set for contact firing no longer exist, the Commanding General, Harbor Defenses of Sandy Hook, will cause such portions of the mine fields to be disarmed and will report such facts through the Harbor Entrance Control Post to the Commandant, Third Naval District.

4. The Harbor Entrance Control Post will maintain a log to include the following records:

a. The designation of mine groups set for contact firing.

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ENCLOSURE "L" (Annex 1)

Joint Agreement relating to Certain Phases of the Operation of Controlled
Submarine Mines in New York Harbor.

- b. The time such groups were set for contact firing.
- c. The time that groups previously set for contact firing disarmed.
- d. A brief description of the circumstances warranting the setting of any groups of contact firing.
- e. A record to indicate the time and manner of notification to the Commandant, Third Naval District, whenever mine groups are armed or disarmed.

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ENCLOSURE "L" (Annex 2)

SUGGESTIONS FOR USE OF CONTROLLED MINES DURING WAR

1. While the proper use of a controlled mine field in war is a direct responsibility of the Harbor Defense Commander, the following suggestions based upon the technical characteristics of the casemate control apparatus and the underwater equipment are published for the guidance of all concerned.

2. After the mine field has been planted, certain tactical situations will arise which will demand prompt and positive action by the Harbor Defense Commander or his representative to insure that:

- a. When our own Navy passes in or out through the mine field, it shall not be restricted in its formation due to the danger of mines being detonated.
- b. When single friendly ships pass in or out through the mine field, only so much of the mine field should be made "safe" as will assure these ships a safe passage and at the same time will not permit submarines to enter the harbor either by following or paralleling the course of the friendly ship.
- c. When hostile aerial bombing of the mine field is attempted, no mines will be detonated by the shock effect of such aerial bombs.
- d. During a hostile bombardment of the shore installations, no mines will be detonated by shells bursting in the mine field.

3. a. The decision as to whether the mine field or any part of it will remain at "safe" or "alert", and all orders governing the change from "safe" to "alert" and vice versa, will be issued by the duty officer at the Harbor Entrance Control Post, based upon the tactical situation existing at the time.

b. The mine field should be set for contact fire at times when hostile submarines may attempt to enter the harbor submerged or on the surface during periods of poor visibility. Intelligence obtained by Navy magnetic indicator loops and other underwater detector equipment should be made available to the duty officer in the HECF and considered by him in making his decision as to whether or not to employ contact fire.

4. With the No. 3 casemate control system, the mine field or any group thereof can be made "safe" for the passage of friendly vessels by the simple action of cutting off firing power in the casemate. If the entire field is to be set "safe", this can be accomplished by pushing down the safety officer's switches on all active power panels in the casemate. If only a specified group or groups are desired to be set "safe", this can be accomplished by pushing down the group firing switches of those groups only. OPERATING POWER NEED NOT BE CUT OFF FOR PASSAGE OF FRIENDLY SHIPS THROUGH MINE FIELDS.

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ENCLOSURE "L" (Annex 2)

5. If during its passage through the mine field, the vessel arms a mine in any group, FIRING POWER MUST NOT AGAIN BE TURNED ON AT THE POWER PANEL UNTIL THESE MINES ARE FIRST DISARMED. This is accomplished in each group having armed mines by pushing the group firing switch down and delay contact key up until white light stops blinking and glows steadily.

6. The detailed control procedure covering the passage of friendly warships or merchant vessels into a harbor will be covered in Navy Department instructions. Authorization for entry having been given, the following procedure for control of the mine fields should, in general, be followed:

a. The Duty Officer at the Harbor Entrance Control Post will notify the Mine Group or Battery Commander of the fact that safe passage through the mine field is desired.

b. Based on previously arranged plans as to the course to be followed by such vessels the Mine Group or Battery Commander will direct the Casemate Officer to "safe" the desired mine groups. The Mine Group or Battery Commander should also assign the friendly vessel as a target to be tracked by his range section to insure that the vessel is following the designated course and will not veer off across a group which has not been made "safe."

NOTE: It should be routine training of the range section of every mine battery, when visibility permits, to plot and record the course of every ship together with its name, nationality, date, and hour of passing through the mine field. This will enable the Mine Group or Battery Commander to determine the specific groups which should be set "safe" and when they should again be placed in the "alert" position.

c. After the casemate operator shall have made the desired group or groups "safe", this fact will be verified by the Casemate Officer, who will then notify the Mine Group or Battery Commander that groups "so-and-so" are safe. This information will be passed to the Harbor Entrance Control Post which will then signal the guard ship to permit the vessel to enter the harbor.

d. As soon as the friendly vessel has passed a safe distance beyond any "safe" line of mines, the Mine Group or Battery Commander should notify the Harbor Entrance Control Post of this fact. Orders for returning the "safe" mines to "alert" should then be issued from the Harbor Entrance Control Post.

e. In the event that a friendly vessel should inadvertently veer off the course through the "safe" mine fields, as shown by the plot in the range section, the Mine Group or Battery Commander should immediately direct the casemate to "safe" the group toward which the friendly ship is heading.

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ENCLOSURE "I." (Annex 2)

f. When the entire mine field has again been placed on the alert, this information should be transmitted from the casemate through communication channels to the Harbor Entrance Control Post.

7. The following is published as a GUIDE ONLY in making decisions as to proper use of firing power in the casemate for each condition of visibility, depth of water, and for tactical situations indicated:

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ENCLOSURE "L" (Annex 2)

VISIBILITY OVER MINE FIELD (See Note A)	PERFECT		IMPERFECT (NIGHT, FOG, RAIN, ETC.)
DEPTH OF WATER AT MINES (See Note A)	50 FEET OR LESS (See Note B)	MORE THAN 50 FEET (See Note C)	ALL DEPTHS
TACTICAL SITUATION FIRING POWER SHOULD BE			
MINE FIELD "ALERT" (Mines set for contact firing.)	ON	ON	ON
U. S. NAVAL FORMATIONS IN OR OUT	OFF ENTIRE FIELD (See Note D)	OFF ENTIRE FIELD (See Note D)	OFF ENTIRE FIELD (See Note D)
SINGLE FRIENDLY VESSELS IN OR OUT	OFF SPECIFIED GROUPS ONLY	OFF SPECIFIED GROUPS ONLY	OFF USUALLY SPECIFIED GROUPS PLUS ONE OR MORE ADJACENT GROUP ON EACH FLANK THEREOF
DURING HOSTILE AERIAL BOMBING OF MINE FIELD	OFF (See Note E)	OFF (See Note E)	OFF (See Note E)
DURING HOSTILE BOMBARDMENT OF SHORE INSTALLA- TIONS	OFF ONLY IF SHELLS BURST IN MINE FIELD (See Note F)	OFF ONLY IF SHELLS BURST IN MINE FIELD (See Note F)	OFF ONLY IF SHELLS BURST IN MINE FIELD (See Note F)
DURING HOSTILE SWEEPING OPERATIONS	ON	ON	ON

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ENCLOSURE "L" (Annex 2)

- NOTE A: This chart is drawn up on the basis of a single mine field. In projects having two or more widely separated mine fields, the data herein should be applied to each mine field individually.
- NOTE B: In channels less than 50 feet deep it is improbable that submarines will attempt to enter the harbor submerged.
- NOTE C: In channels greater than 50 feet deep submarines may attempt to enter the harbor submerged.
- NOTE D: It is not probable that submarines will attempt to enter a harbor while a naval formation of any size is entering or leaving that harbor. See also paragraph 2 a above.
- NOTE E: It is not probable that submarines will attempt to pass through a mine field submerged, during aerial bombing of that field. Aerial bombs may cause detonation of mines if firing power is left on.
- NOTE F: It is not probable that a deliberate bombardment of a mine field will ever be undertaken. However, it is possible that salvos directed at other shore installations may fall in the mine field.

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INCLOSURE "H"

SUBJECT: Examination Batteries.

1. Alerting of Batteries - The Examination Battery maintains one (1) gun crew and sufficient range personnel to secure necessary firing data on a twenty four (24) hour alert basis. The gun crew remains at ease in tents or surrounding area of gun emplacement. If the Harbor Entrance Control Post Duty Officer observes that the Navy is having difficulty during challenging operations, he will order to range crew to track the ship being challenged. When the Navy gives the ship orders to halt, the gun crew will be alerted to man the gun.

2. Assignment of Target - The Guardship notifies Harbor Entrance Control Post at Hadsforth by radio of ships failing to stop when ordered. A brevity code is used giving the class of the ship and its location (local grid code). The Duty Officer immediately relocates the target and gives the position to the battery in Azimuth and range. When possible, by means of observation, the following additional information is given:

Hoist being flown, direction of sailing, if there is more than one (1) ship in the area, the position of the ship in the column. In order to assist other personnel of the battery not having oriented instruments, the number of the nearest buoy to the ship is also given. A typical order is as follows:

"Target 1 YMS Azimuth 3600 mils, Range 6000 yds as of 1300, inbound Ambrose Channel, near buoy #7 Hoist JAB, fire 1 bring-to shot with inert ammunition".

In the event the target had been previously assigned to the range crew, the description and location of the target was not repeated. For destruction fire, the order given is: "Destruction fire with armor piercing (high explosive) ammunition begin firing".

3. During the process of tracking, the position of the target was verified by securing simultaneously plots from Harbor Entrance Control Post #1, the Examination Battery, and if possible, the Guardship.

4. The battery had a standing order to immediately track fast moving targets, PT's, submarines and amphibious craft. The observer was to keep the Guardship under surveillance for any type of signal.

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