

U. S. NAVAL TECHNICAL MISSION TO JAPAN
CARE OF FLEET POST OFFICE
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From: Chief, Naval Technical Mission to Japan.
To : Chief of Naval Operations.
Subject: Target Report - Defenses of TSUSHIMA and Entrance to
Sea of Japan.
Reference: (a) "Intelligence Targets Japan" (DNI) of 4 Sept. 1945.

1. Subject report, covering Target O-55(N) of Fascicle
O-1 of reference (a), is submitted herewith.

2. The investigation of the target and the target report
were accomplished by Captain W.J. Whipple, USN, assisted by person-
nel under command of Colonel D. Luce (CA), USA.



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Captain, USN

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O-55(N)

**DEFENSES OF TSUSHIMA
AND ENTRANCE TO SEA OF JAPAN**

"INTELLIGENCE TARGETS JAPAN" (DNI) OF 4 SEPT. 1945

FASCICLE O-1, TARGET O-55(N)

JANUARY 1946

U.S. NAVAL TECHNICAL MISSION TO JAPAN

SUMMARY

ORDNANCE TARGETS

DEFENSE OF TSUSHIMA AND ENTRANCE TO SEA OF JAPAN

The defenses of TSUSHIMA Strait and KOREA Strait are capable of interdicting casual passage of hostile shipping, but would not prevent determined naval task forces from using the straits for a combat mission or logistic support. These defenses are of sufficient strength only to support naval or air forces in the area and would affect, but not dominate, the tactical situation. The most conspicuous weakness of these defenses is lack of modern fire control and battle communications.

Ordnance material on TSUSHIMA is of old design and is, therefore, not of technical interest and is not worthy of serious study.

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REFERENCES

A. Location of Target:

TSUSHIMA Islands
TSUSHIMA Strait
KOREA Strait

B. Pertinent Report:

"The Defenses of TSUSHIMA" prepared and forwarded by G-2, Fifth
Marine Division, Periodic Report No. 69, dated 29 November 1945.

LIST OF ENCLOSURES

(A) Chart showing defenses of TSUSHIMA. (Enclosure (A) to reference B.)

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INTRODUCTION

The investigation of the defenses of TSUSHIMA had the twofold purpose of estimating the strength of defenses of TSUSHIMA and their probable effectiveness against naval forces seeking passage of the Straits, and search for ordnance material of probable technical interest.

The investigation was conducted jointly with the Army (Col. D. Luce (CA) USA, and party) as the Army was primarily interested in the coast defence installations as such.

Information based on interviews of Japanese personnel and inspection of the site by junior officers was available. Investigation, therefore, consisted of the following measures:

1. Study of available information.
2. Inspection of principal installations on TSUSHIMA. Korea and IKISHIMA were not accessible to the team and were not visited. However, study of the problem demonstrated that TSUSHIMA was the key to the defensive system and the exact status of other defenses is immaterial.
3. Study of other possible defenses of the straits (minefields, naval forces, etc.) in G-2 office in SASEBO.
4. Evaluation of information.

THE REPORT

1. General

TSUSHIMA is strategically located halfway between Japan and Korea, and distances are such that either channel (TSUSHIMA Strait or KOREA Strait) may be commanded by long range coastal defense guns mounted on shore.

TSUSHIMA is composed of two main islands separated by a well-enclosed harbor or bay with many arms, and a dredged channel. The entire archipelago is so mountainous that either defense or invasion must be viewed, initially at least, as a series of separated actions with limited objectives. TSUSHIMA has facilities for support or shelter of only limited offensive forces, and no favorable sites for airports. It is, therefore, of strategic importance only to the extent that it may interdict the straits. The Japanese were aware of the situation and located their defenses accordingly. The shore batteries are considered well sited.

2. Batteries of TSUSHIMA

a. Two 41cm Guns at KUNOSHITA SAKI

This battery consists of a 41cm (16") 45 caliber twin turrets of conventional design, originally intended for a battleship. It is sited on a hill near the north end of TSUSHIMA with 360° traverse, capable of direct fire for generous arcs both to eastward and westward, and probably capable of 360° indirect fire at high elevation. Condition of plant growth indicates that it has been fired only on selected bearings in recent years.

Turret and barbette are mounted in a massive concrete foundation with power supply, ventilation and ample space for stores and ammunition supply. Resupply is by light narrow gauge cable car. Reserve magazines are located in the base of a hill near the jetty. The installation is well constructed, but the mount is of 1920 vintage and design features are uninteresting. A primitive galvanometer remote control system serves the pointer and trainer station. An observation post suitable for spotting and triangulation is 50 yards inland and somewhat above the turret. Another observation post is located on UNI SHIMA about 700 yards from the turret, and much lower. It contains a rangefinder. Communication with observation posts is by telephone, utilizing bare metal wires. No evidence of more elaborate transmission systems was found. No radar was found associated with the battery, although a shore type search radar had been under construction on UNI SHIMA.

The most striking feature of this battery was inadequate fire control and communications. A plotting room was not identified although plotting tables may have existed in any of several places. Such spaces were bare and it is assumed that plotting equipment, telephones, and one or more radio sets had been removed by the Japanese.

This battery was controlled for direct or indirect fire by plotting bearings from one or more stations and from a rangefinder, which had a good arc of train to westward but none to eastward. Transmission of battle information was by telephone, aided by the galvanometers, which are considered neither precise nor reliable.

b. Four 30cm (12") Guns at TATSUNO SAKI

This battery consists of two 30cm 45 caliber twin turrets of conventional design, originally intended for a battleship. It is sited on a steep hillside near the south end of TSUSHIMA, the mounts being about 175 yards apart. They have 360° traverse and are capable of direct fire through generous arcs in an easterly direction, and can probably utilize indirect fire at high elevations throughout 360°. Turrets and barbettes are mounted in massive concrete foundations, with power supply, ventilation, and ample space for stores and ammunition supply. Resupply is by light narrow gauge railway. Reserve magazines are located in the vicinity. The installation is well constructed, but mounts are of 1915 vintage and design features are uninteresting. A primitive galvanometer remote control system serves pointer and trainer stations.

Two observation posts suitable for spotting and triangulation are located near the turrets. Neither rangefinders, radar, nor evidence of elaborate transmission systems were found. Remarks on fire control and communications of the KUNOSHITA SAKI battery apply also to this battery.

c. Miscellaneous Guns

- 22 15cm naval guns
- 10 28cm howitzers
- 24 AA guns (reported to be field pieces)

The above weapons are well distributed and would interdict the waters within 15,000 yards of TSUSHIMA against casual passage but would not affect the problem of passing the straits. AA defense of the island is weak.

d. Other Defenses

There are several harbors capable of sheltering light combatant ships and craft, but facilities for support of such craft are very limited.

e. Minefields

The straits are reported to have been free of mines until July 1945, at which time both straits were mined with two rows of contact mines of suitable depth for use against ships, and two additional rows at greater than 40 foot depth. Spacing of mines was approximately 100 yards in each row. Several minefields had been laid inshore near both Korea and KYUSHU at various dates, but not near TSUSHIMA.

The presence of these minefields would not unduly interfere with the task of forcing the straits. The center third of either minefield could be swept without danger from concentrated fire of light shore batteries. It is probable that the minesweeping force would suffer some damage from either mines or heavy shore batteries.

3. Effectiveness of Defense of Straits

TSUSHIMA Strait and KOREA Strait are of equal width and coast defenses of both are approximately of equal strength.

Each strait is within range of a major caliber battery for its full width at its narrowest point. The fields of fire of batteries from opposite sides of either strait overlap for several thousand yards, the exact amount being dependent on initial velocity of the powder. The value of this feature of the defenses is largely nullified by the weakness of fire control installations, especially on TSUSHIMA.

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The batteries on IKISHIMA and in Korea were not visited and are reported to have somewhat better fire control installations, but no radar of consequence. Therefore a naval task force should be able to pass either strait by selecting a track approximately 25,000 yards from TSUSHIMA, concealing its movements from the coast defense batteries by maneuvers and liberal smoke screens.

The TSUSHIMA batteries would not be effective against, and would be negligible danger to, a fast task force of combatant ships seeking passage. Convoys of supply ships would probably suffer damage unless times of passage were carefully chosen, but they should be able to supply a force in the Sea of Japan from a base to southward, if this were required.

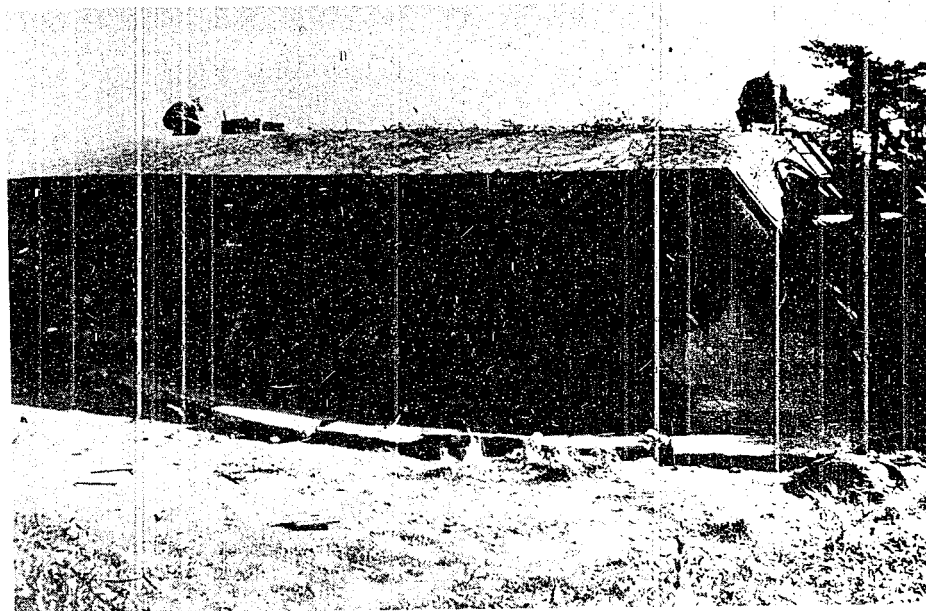


Figure 1
41cm TWIN TURRET

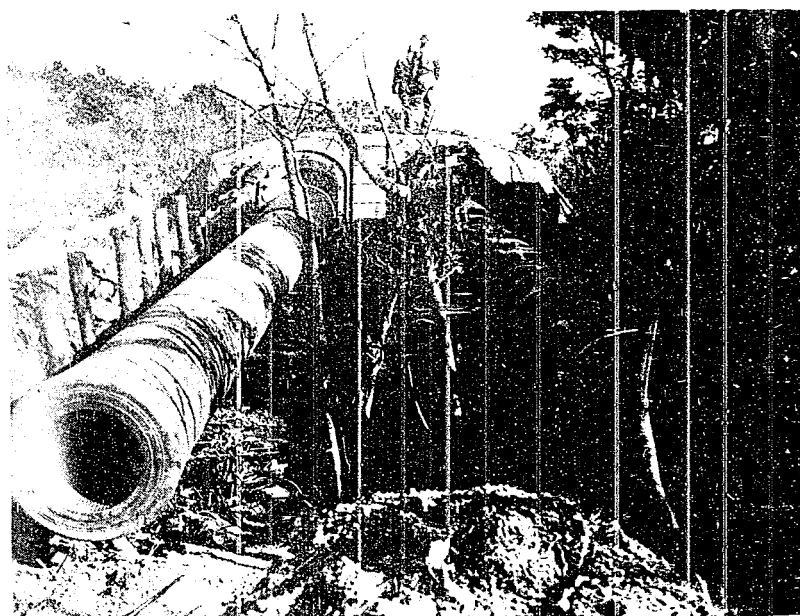


Figure 2
30cm TWIN TURRET "

Figure 3
30cm TWIN TURRET
(Top blown off
by demolition)

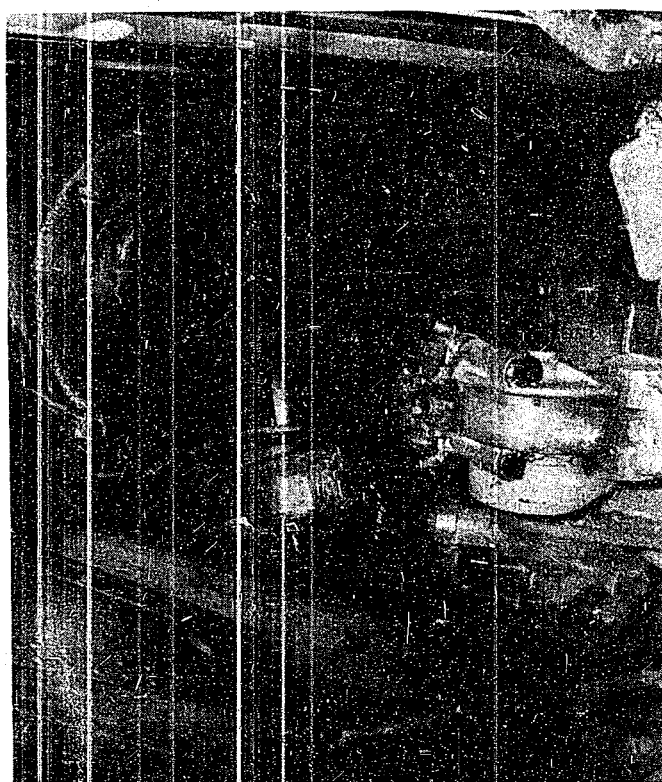
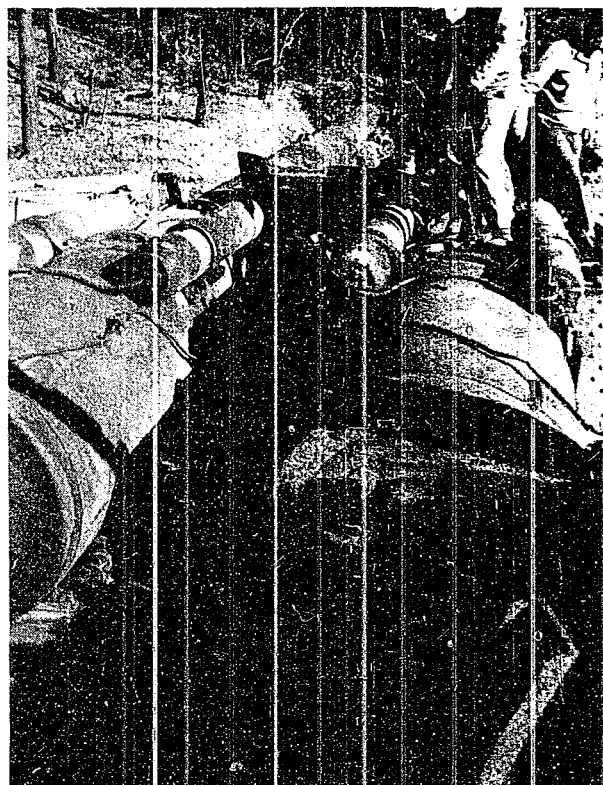


Figure 4
30cm BREECH MECHANISM
(Showing effect of demolition)

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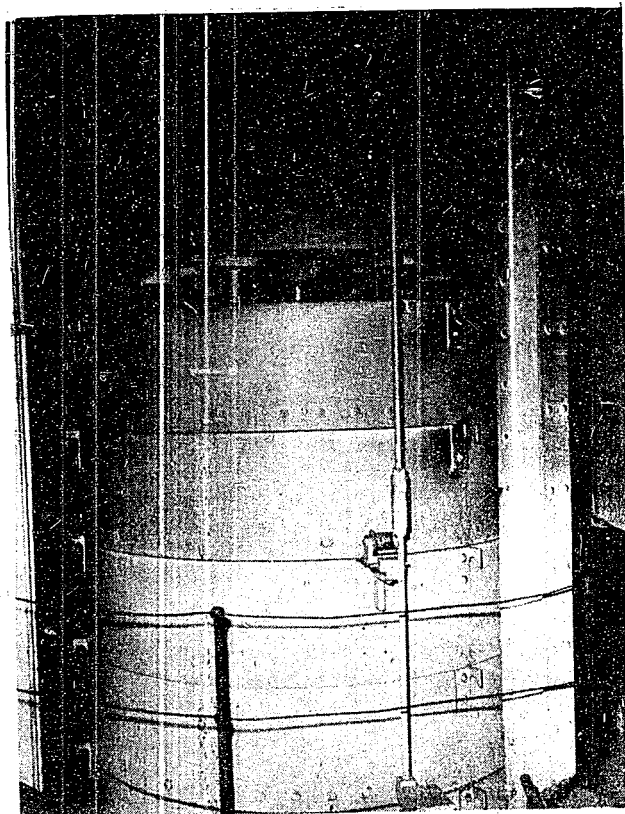


Figure 5
HYDRAULIC RESERVOIR
IN 30cm TURRET

Figure 6
CONVEYOR FOR LOADING AM-
MUNITION ON TO ROTATING
TRAY FROM BARBETTE SPACE



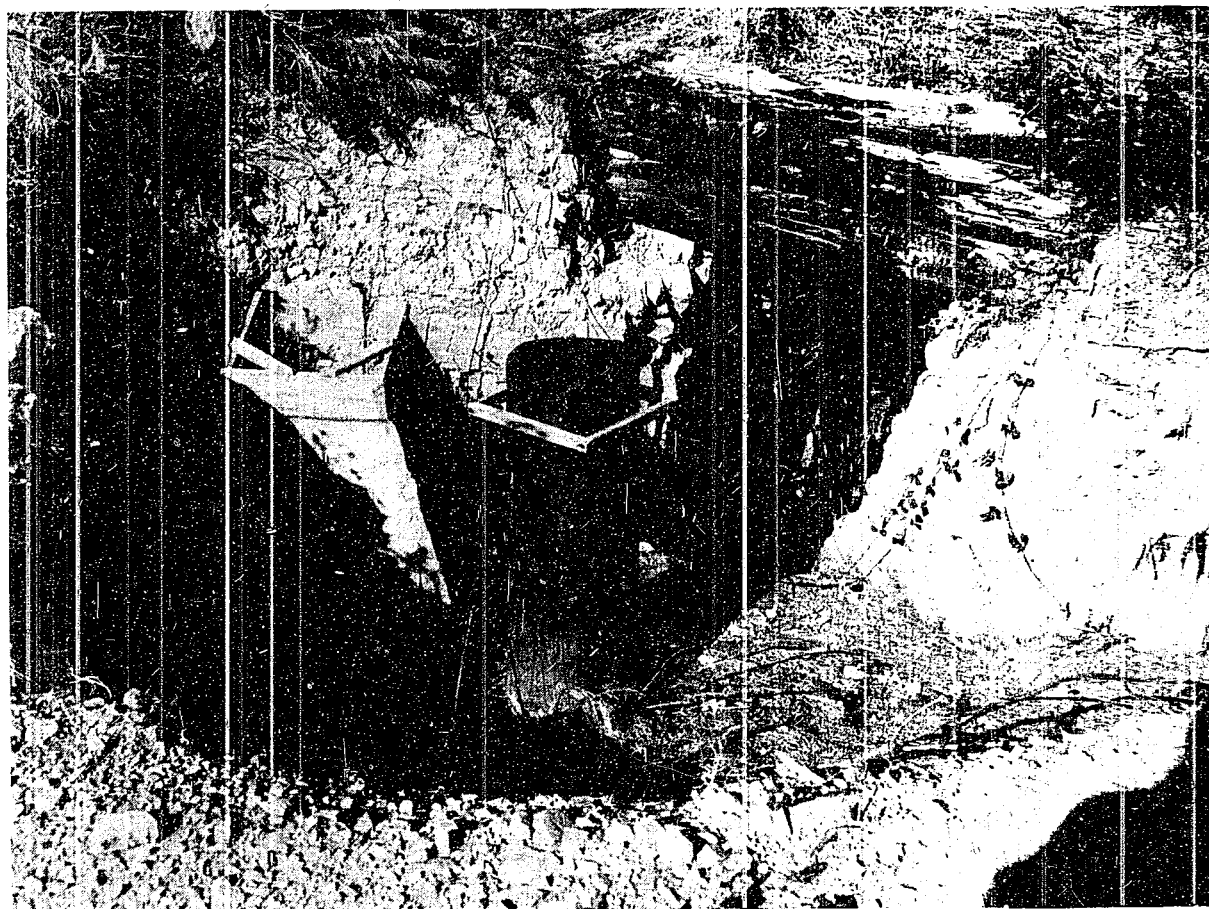


Figure 7

MOUNT FOR TRANSIT IN OBSERVATION POST
(This is only evidence of fire control instruments at O.P.'s. Note cave entrance)

ENCLOSURE (A)

