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**ONI 222-J**

# **THE JAPANESE NAVY**

Official United States Navy Reference Manual  
Prepared by the Division of Naval Intelligence  
June 1945

Instructors Reading this Document

Sign Below (FBI) \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

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- Silhouettes of Japanese Naval Vessels
- List of Japanese Naval Vessels by Design Classes
- Statistical Summary of Principal Combatant Types
- War Loss Section
- Graphic and Statistical Reference to War Loss Section

*Earle* 27 July  
*Harpell* 22 July  
*Wellendorf* 31 July

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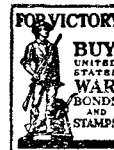
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Op-16-PT  
ALO-3/EN3-10

Serial No. 01597016

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NAVY DEPARTMENT  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
WASHINGTON 25, D. C.

9 August 1945

From: The Director of Naval Intelligence.  
To: All Holders of ONI 222-J, THE JAPANESE NAVY.  
Subject: "List of Japanese Naval Vessels by Design Classes" in  
ONI 222-J - Changes to.

1. The new standard reference manual, ONI 222-J, THE JAPANESE NAVY, was distributed in July, 1945.

2. Inasmuch as recent operations have altered the subject list substantially, and many of the Principal Combatant Types have been rendered inoperative, the following changes to ships in this category should be entered on pages VI and VII of ONI-222-J:

Note: \*Indicates ship heavily damaged.

\*\*Indicates ship heavily damaged, probably destroyed.

BATTLESHIPS

KONGO CLASS  
\*\*BB-4 HARUNA

ISE CLASS  
\*BB-7 ISE  
\*\*BB-8 HYUGA

NAGATO CLASS  
\*BB-9 NAGATO

AIRCRAFT CARRIERS

CV UNRYU CLASS  
\*AMAGI  
\*KATSURAGI

AIRCRAFT CARRIERS (SMALL)

Add: CVL IBUKI  
(identification unconfirmed)

AIRCRAFT CARRIERS (ESCORT)

\*CVE-4 KAIYO

Add: SEAPLANE CARRIERS

Add: CVS-1 NOTORO

HEAVY CRUISERS

AOBA CLASS  
\*\*CA-3 AOBA

NACHI CLASS  
Delete CA-6 HAGURO  
(War Loss)  
\*CA-7 MYOKO  
Delete CA-8 ASHIGARA  
(War Loss)  
Delete note "(one unit  
sunk, May 1945)"

ATAGO CLASS  
\*CA-10 TAKAO

TONE CLASS  
\*CA-17 TONE

Delete CA-19 IBUKI  
(see CVL IBUKI)

LIGHT CRUISERS

Add: KUMA-NATORI CLASS

Add: \*CL-5 KITAGAMI

\*\*CL-22 OYODO

29 SEP 1945

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9 August 1945

Subject: "List of Japanese Naval Vessels by Design Classes" in  
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**LIGHT CRUISERS**

Delete YASOJIMA, (ex Escort)  
(War Loss)

**DESTROYERS**

MINEKAZE CLASS

Delete DD-12 NADAKAZE  
(Decommissioned)

HATSUHARU-SHIGURE CLASS

Delete DD-60 HATSUHARU  
(War Loss)

ASASHIO-KAGERO CLASS

Delete DD-95 AMATSUKAZE  
(Decommissioned)

TAKANAMI CLASS

Delete DD-127 KISHINAMI  
(War Loss)

Delete DD-128 SHIRANAMI  
(existence unconfirmed)

SHIMAKAZE CLASS

Delete DD-129 SHIMAKAZE  
(War Loss)

**SUBMARINE CRUISERS (SS)**

I-5 CLASS

Delete I-5 (War Loss)  
Delete I-6 (War Loss)

I-9 CLASS

Delete I-10 (War Loss)

I-400 CLASS (Cruiser - Transport)

Add I-402, I-404

**FLEET SUBMARINES (SS)**

I-161 CLASS

Delete I-161 (War Loss)  
Delete I-163 (War Loss)

I-168 CLASS

Delete I-169 (War Loss)  
Delete I-174 (War Loss)  
Delete I-175 (War Loss)

I-176 CLASS

Delete I-179 (War Loss)  
Delete I-184 (War Loss)  
Delete I-185 (War Loss)

I-361 CLASS

Delete I-365 (War Loss)

**SUBMARINES, COASTAL TYPE -  
under 1,000 tons (OSS)**

RO-60 CLASS

Delete RO-67 (Decommissioned)  
Delete RO-68 (Decommissioned)

RO-35 CLASS

Delete RO-36 (War Loss)  
Delete RO-42 (War Loss)  
Delete RO-48 (War Loss)  
Delete RO-51 (War Loss)  
Delete RO-52 (War Loss)  
Delete RO-53 (War Loss)  
Delete RO-54 (War Loss)

RO-100 CLASS

Delete RO-111 (War Loss)  
Delete RO-114 (War Loss)  
Delete RO-117 (War Loss)  
Delete RO-118 (War Loss)



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RO-100 CLASS

Delete RO-119 (War Loss)  
Delete RO-120 (War Loss)  
Delete RO-121 (War Loss)  
Delete RO-123 (Existence unconfirmed)  
Delete RO-124 (Existence unconfirmed)  
Delete RO-125 (Existence unconfirmed)

RO-500 CLASS

Delete RO-501 (War Loss)

  
C. G. Moore,  
By direction.

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ERRATA - ONI-222-J

Page 31 - CA HEAVY CRUISERS, NACHI CLASS      Under "Dimensions,"  
delete "11,500 tons (standard)" and insert "12,000 tons  
(standard)"

Page 35 - CA HEAVY CRUISERS, ATAGO CLASS      Under "Dimensions,"  
delete "12,500 tons (standard)" and insert "11,000 tons  
(standard)"

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## INTRODUCTION TO ONI 222-J—THE JAPANESE NAVY

ONI 222-J is the standard reference manual on the Japanese Navy.

Reference manuals on the world's navies will hereafter be issued in loose-leaf form and in the present size (8 x 10½"). Replacement sheets and revisions will be issued by ONI and properly included in the basic manual by copy holders.

ONI 222-J replaces the previous manual of this title issued in July 1944. This publication should be destroyed upon receipt of the complete manual.

ONI 222-J is issued in two parts. The first part includes an operational design list, war loss list, and silhouette chart of principal combatant types, as well as drawings, statistics, and photographs. The second part covers minor combatant types, including information on hospital ships, and warships of other nations seized by the Japanese.

JUNE 1945.

HEWLETT THEBAUD

Rear Admiral, U. S. Navy

Director of Naval Intelligence

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## THE NAMING OF JAPANESE WARSHIPS

The following table illustrates the system for naming Japanese naval vessels. Familiarity with the principles on which Japanese naval nomenclature is based will facilitate classification of new or previously unreported vessels.

### BATTLESHIPS

Names of ancient provinces

### AIRCRAFT CARRIERS

Names of birds or dragons

NOTE: Aircraft carriers of the UNRYU Class, bearing names of mountains, were converted from large cruiser hulls.

### BATTLE CRUISERS, LARGE CRUISERS, and HEAVY CRUISERS

Names of mountains

NOTE: TONE and MOGAMI Classes, originally designed as light cruisers, were named for rivers.

### LIGHT CRUISERS

Names of rivers

### DESTROYERS

Names of astronomical and earthly phenomena

### SECOND-CLASS DESTROYERS

Names of plants

### SUBMARINES, MINESWEEPERS, SUB- MARINE CHASERS, MOTOR TORPEDO BOATS

Designated by numerals

### SPECIAL SERVICE SHIPS

Land projections and points which are guiding  
points in navigation.

# JAPANESE WARSHIP TYPE TERMINOLOGY AND EQUIVALENTS

Type Symbol	ONI 222-J Type Designation	JAPANESE TYPE TERMINOLOGY	OFFICIAL U. S. NAVY Type Designation	Type Symbol
BB	Battleship.....	Senkan.....	Battleship.....	BB
CVB	Large Aircraft Carrier.....	Kokubokan.....	Aircraft Carrier, Large.....	CVB
CV	Aircraft Carrier.....	Kokubokan.....	Aircraft Carrier.....	CV
CVL	Small Aircraft Carrier.....	Kokubokan.....	Aircraft Carrier, Light.....	CVL
CVE	Escort Aircraft Carrier.....	Kokubokan.....	Aircraft Carrier, Escort.....	CVE
CVS	Seaplane Carrier.....	Suijokibokan.....	Dropped.....	Dropped
CB	Large Cruiser.....		Large Cruiser.....	CB
CA	Heavy Cruiser.....	Itto Junyokan (First Class Cruiser).	Heavy Cruiser.....	CA
CL	Light Cruiser.....	Nito Junyokan (Second Class Cruiser).	Light Cruiser.....	CL
DD	Destroyer.....	Itto Kuchikukan (First Class Destroyer).	Destroyer.....	DD
ODD	Destroyer, Second Line or Escort.	Nito Kuchikukan (Second Class Destroyer).	Dropped.....	Dropped
TB	Torpedo Boat.....	Suiraitai.....	None..... (Nearest equivalent Destroyer Escort Vessel) .....	None (DE)
SS	Submarine Cruiser.....	Itto Sensuikan (First Class Submarine).	Submarine.....	SS
		Long-range Cruiser (Jun) Submarine.		
SS	Fleet Submarine.....	Itto Sensuikan (First Class Submarine).	Submarine.....	SS
		Navy Ministry Large (Kaidai) Submarine.		
OSS	Submarine, Coastal.....	Nito Sensuikan (Second Class Submarine).	Submarine.....	SS
		Navy Ministry Medium (Kai-chu) Submarine.		
SM	Submarine Minelayer.....	Kisen Sensuikan.....	Minelaying Submarine.....	SM
APS	Transport Submarine.....	Yusen Sensuikan.....	Transport Submarine.....	APS
PF	Frigate.....	Kaibokan (Sea Defense Vessel).	Frigate.....	PF
OCA	Cruiser, Second Line.....	Kaibokan (Coast Defense Ship).	Dropped.....	Dropped
CL(T)	Training Cruiser.....	Renshu Junyokan.....	Dropped.....	Dropped
XCL	Auxiliary Cruiser.....		None.....	None
CM	Minelayer.....	Fusetsukan.....	Minelayer.....	CM
XCM	Converted Minelayer.....	Tokusetsu Fusetsukan.....	Minelayer.....	CM
AM	Minesweeper.....	Sokaitei.....	Minesweeper.....	AM
PG	Gunboat.....	Hokan (Large, Ocean-going Gunboat).	Gunboat.....	PG
PC	Submarine Chaser, Large....	Kusentei (Submarine Chaser) ..	Submarine Chaser, 173 ft....	PC
SCS	Submarine Chaser, Small....	Tokumu Kusentei (Special Duty Submarine Chaser).	Submarine Chaser, 110 ft....	SC
PT	Motor Torpedo Boat.....	Gyoraitei.....	Motor Torpedo Boat.....	PT
PR	River Gunboat.....	Kaje Hokan.....	River Gunboat.....	PR
AV	Seaplane Tender.....	Suijokibokan.....	Seaplane Tender.....	AV
XAV	Converted Seaplane Tender..	Tokusetsu Kansen.....	Seaplane Tender.....	AV
XAPV	Converted Aircraft Transport.	Tokusetsu Kansen.....	Aircraft Ferry.....	APV
AS	Submarine Tender.....	Sensuibokan.....	Submarine Tender.....	AS
XAS	Converted Submarine Tender.	Tokusetsu Kansen.....	Submarine Tender.....	AS
AR	Repair Ship.....	Tokumukan.....	Repair Ship.....	AR
ARS	Salvage Vessel.....	Tokumukan.....	Salvage Vessel.....	ARS
XARS	Converted Salvage Vessel....	Tokumukan.....	Salvage Vessel.....	ARS
AO	Fuel Oil Tanker.....	Tokumukan.....	Oiler, Fuel Oil Tanker.....	AO
AF	Provision Storeship.....	Tokumukan.....	Provision Storeship.....	AF
ARC	Cable Layer.....	Denran Fusetsutei.....	Dropped.....	Dropped

# JAPANESE WARSHIP TYPE TERMINOLOGY AND EQUIVALENTS—Continued

Type Symbol	ONI 222-J Type Designation	JAPANESE TYPE TERMINOLOGY	OFFICIAL U. S. NAVY Type Designation	Type Symbol
LSV	MLC Carrier.....	Tokusetsu Kansen.....	Landing Ship, Vehicle.....	LSV
AG	Miscellaneous Auxiliary.....	.....	Miscellaneous Auxiliary.....	AG
AGS	Surveying Ship.....	Tokumukan.....	Surveying Ship.....	AGS
YP	Patrol Vessel, District.....	.....	Patrol Vessel, District.....	YP
APD	Numbered Naval Transport	Yusokan.....	Fast Transport, Destroyer..	APD
LSM	Numbered Auxiliary Trans- port.	Tokusetsu Yusokan.....	Landing Ship, Mechanized..	LSM
CMc	Minelayer, Coastal.....	Fusetsutei*.....	Minelayer, Coastal.....	CMc
AMc	Minesweeper, Coastal.....	Sokai Tokumutei**.....	Minesweeper, Coastal.....	AMc

\*Referred to in other publications as DM. \*\*Referred to in other publications as AM(S).

# LIST BY DESIGN CLASSES

DESIGN CLASSES

STATISTICAL SUMMARY

WAR LOSS SECTION



## LIST OF JAPANESE NAVAL VESSELS BY DESIGN CLASSES

The various types of naval vessels are grouped, in order of their relative importance, under the following principal headings:

- (A) PRINCIPAL COMBATANT TYPES
- (B) MINOR COMBATANT TYPES
- (C) AUXILIARY TYPES
- (D) DISTRICT CRAFT
- (E) HOSPITAL SHIPS
- (F) AVAILABLE NON-JAPANESE WARSHIPS

When two or more vessels are known to be built to a common design, they are grouped under the name ship of the class. The name ship is usually the first unit built to a given design. Established usage will, however, sometimes create exceptions to this rule.

Ships without sisters are listed separately, and the term "Class" dropped, to denote that these are single ships.

- Denotes single ship, not unit of a class.

The two accepted methods for transliteration of Japanese words into English spelling are the Hepburn System and the Kokutai (Japanese official) System. The Hepburn System represents the more nearly phonetic approach to spoken Japanese and is followed in this publication.

The following list of equivalents is provided to enable the user of ONI 222-J to reconcile any Kokutai version of a Japanese ship name with the more familiar or Hepburn spelling:

### *Hepburn*

FU  
SHI  
SH  
CHI  
TSU  
CH  
JI  
JU  
JO

### *Kokutai*

HU  
SI  
SY  
TI  
TU  
TY  
ZI  
ZYU  
ZYO

Typical examples are:

SHIRETOKO  
CHIDORI  
ASHIGARA  
MUTSU

SIRETOKO  
TIDORI  
ASIGARA  
MUTU

# LIST BY DESIGN CLASSES

## (A) PRINCIPAL COMBATANT TYPES

### BATTLESHIPS

**KONGO Class**  
BB 4—HARUNA

**ISE Class**  
BB 7—ISE  
BB 8—HYUGA  
(Both units refitted 1944)

**NAGATO Class**  
BB 9—NAGATO

### AIRCRAFT CARRIERS

**HAYATAKA (JUNYO) Class**  
CV 8—HAYATAKA (JUNYO)  
(ex KASHIWARA MARU)

**CV UNRYU Class**  
AMAGI  
KATSURAGI  
KASAGI  
Aso (Under construction)  
IKOMA (Under construction)

### AIRCRAFT CARRIERS (Small)

- CVL 1—HOSHIO (Training vessel)

**ZUIHO Class**  
CVL 4—RYUHO  
(ex AS TAIGEI)

### AIRCRAFT CARRIERS (Escort)

- CVE 4—KAIYO (ex ARGENTINA MARU)

**CVE's (Kobe type)**  
2 units, 1 completed.

**CVE's ("MAC" ships)**  
2 completed, others building.

### HEAVY CRUISERS

**AOBA Class**  
CA 3—AOBA

**NACHI Class**  
CA 6—HAGURO  
CA 7—MYOKO  
CA 8—ASHIGARA  
(One unit sunk, May 1945)

**ATAGO Class**  
CA 10—TAKAO

**TONE Class**  
CA 17—TONE  
• CA 19—IBUKI

### LIGHT CRUISERS

**AGANO Class**  
CL 24—YAHAGI  
CL 25—SAKAWA  
(One unit sunk, April 1945)  
• CL 22—OYODO  
• YASOJIMA, (ex-Escort)

### DESTROYERS

**MINEKAZE Class**  
DD 4—SAWAKAZE  
DD 8—YUKAZE  
DD 10—SHIOKAZE  
DD 12—NADAKAZE  
DD 15—NOKAZE  
Units believed rearmed for escort duty.

**KAMIKAZE Class**  
DD 16—KAMIKAZE  
DD 18—HARUKAZE  
DD 21—HATAKAZE

**FUBUKI Class**  
DD 52—USHIO  
DD 56—HIBIKI

**HATSUHARU-SHIGURE Class**  
DD 60—HATSUHARU  
DD 61—HATSUSHIMO  
DD 66—SHIGURE

### ASASHIO-KAGERO Class

DD 84—KASUMI  
DD 87—SHIRANUHI  
DD 92—YUKIKAZE  
DD 95—AMATSUKAZE  
DD 101—HAMAKAZE

### TERUTSUKI Class

HARUTSUKI  
YOITSUKI  
NATSUZUKI  
HANAZUKI

### TAKANAMI Class

DD 121—FUJINAMI  
DD 127—KISHINAMI  
DD 128—SHIRANAMI  
\*ASASHIMO

### SHIMAKAZE Class

DD 129—SHIMAKAZE

### ESCORT DESTROYERS

#### MATSU Class

The following names have been reported for units of this class:

MOMO	KATSURA
MOMI	HASHI
TAKE	SAKURA
UME	MAKI
SUGI	KUSU
TSUBAKI	SUSUKI
HINOKI	SUMIRE
KAYA	HASU
KASHIWA	ENOKI
TACHIBANA	KAEDE
YANAGI	KASHI
HAGI	KEYAKI
FUJI	KIRI
AOI	NARA
KIKU	TSUTA

#### KURI-WAKATAKE Class

ODD 7 —KURI    ODD 18—HASU  
ODD 11—KAKI    ODD 26—ASAGAO  
ODD 12—TSUGA

All units of this class have been converted to some subsidiary capacity such as escort vessels, light minelayers, fast minesweepers, and

•Denotes single ship, not unit of class.

\*Variation in main armament differentiates this unit from TAKANAMI Class.

tenders. Many of the ODD names have been transferred to units of MATSU Class.

KURI Class was formerly known as MOMI Class

## TORPEDO BOATS

### CHIDORI Class

TB 1—CHIDORI  
TB 3—TOMOZURU  
TB 4—HATSUKARI

### OTORI Class

TB 6—HAYABUSA  
TB 11—KARI  
TB 12—KIJI

## SUBMARINE CRUISERS (SS)

### I-5 Class

I-5 I-6 I-8

### I-9 Class

I-1 I-12 I-14  
I-10 I-13 I-15

### I-15 Class

I-26 I-41 \*I-47  
I-36 I-44 \*I-48  
I-37 I-45 \*I-49  
I-38 \*I-46

### I-400 Class (Cruiser Transport)

I-400 I-401 I-405

## FLEET SUBMARINES (SS)

### I-153 Class

I-153 I-156 I-159  
I-154 I-157  
I-155 I-158

(Training and guard vessels)

### I-161 Class

I-161 I-162 I-163

### I-165 Class

I-165

### I-168 Class

I-169 I-174 I-175

### I-176 Class

I-177 I-184 I-186  
I-179 I-185 I-187

### I-201 Class

I-201 I-203 I-205  
I-202 I-204

### I-351 Class

I-351 I-352

### I-361 Class

I-361 I-366 I-371  
I-362 I-367 I-372  
I-363 I-368 I-373  
I-364 I-369  
I-365 I-370

## SUBMARINES, Coastal Type—under 1,000 tons (OSS)

### RO-57 Class

RO-57 RO-58 RO-59

### RO-60 Class

RO-62 RO-64 RO-68  
RO-63 RO-67

### RO-35 Class

RO-36 RO-47 RO-52  
RO-41 RO-48 RO-53  
RO-42 RO-49 RO-54  
RO-43 RO-50 RO-55  
RO-46 RO-51 RO-56

### RO-100 Class

RO-109 RO-115 RO-121  
RO-111 RO-117 RO-123  
RO-112 RO-118 RO-124  
RO-113 RO-119 RO-125  
RO-114 RO-120

### RO-500 Class

RO-500 (ex German U-1224)  
RO-501

## (B) MINOR COMBATANT TYPES

## FRIGATES (PF)

### SHIMUSHU Class

SHIMUSHU ETOROFU  
KUNAJIRI OKI  
HACHIO TSUSHIMA

FUKUE  
AMAKUSA  
MANJU  
KANJU  
KASADO

\*\*UKURU  
\*\*OKINAWA  
\*\*AMAMI  
\*\*AGUNI

### \*\*\*MIKURA Class

MIKURA YASHIRO  
MIYAKE CHIBURI  
NOMI SHONAN  
KURABASHI

## LIST BY DESIGN CLASSES

A few 1,600-ton minelayers and 1,200-ton U-Kreuzers have also been reported turned over to the Japanese.

## SUBMARINE MINE-LAYERS (SM)

### I-121 Class

I-121 I-122

## TRANSPORT SUBMARINES (APS)

### I-52 Class

I-52 I-53

### I-54 Class

I-54 I-56 I-58

## ARMY TRANSPORT SUBMARINES

### YU Type

Number of units undetermined.

## MIDGET SUBMARINES

### MATO Type

## SMALL SUBMARINES

### HA-101 Class

Built: 1944-45. Reports indicate that displacement of these units is under 500 tons.

HA-101 HA-106  
102 107  
103 108  
104 109  
105 110

## HUMAN TORPEDO (Kamishio)

### ULITHI Type

\*These units formerly of the I-16 Class probably carry midget submarines. •Denotes single ship, not unit of class.

\*\*Grouped in UKURU Class. Six additional units reported. See page 107.

\*\*\*Five new units reported. See page 109.

# LIST BY DESIGN CLASSES

## FRIGATES (PF)—Con.

### KAIBOKAN #1 Class—(formerly called PF UN-2 Class)

PF 1	PF 35
3	37
9	39
13	41
17	43
19	45
23	47
25	49
27	51
29	53
31	

Additional units believed operational; numbers unknown.  
DE-UN-1 appears to be related in design to this class.

### KAIBOKAN #2 Class—(formerly called PF UN-1 Class)

PF 2	PF 36
4	38
6	40
8	42
12	44
14	46
16	48
18	50
22	52
26	54
30	56
32	112
34	130

Additional units believed operational; numbers unknown.

## SECOND-LINE CRUISERS

- OCA 1—ASAMA—training auxiliary (CM 1 TOKIWA is a sistership)
- OCA 2—YAKUMO
- OCA 3—AZUMA—immobilized

### IZUMO Class

- OCA 4—IZUMO
- OCA 5—IWATE
- OCA 6—KASUGA—training auxiliary
- OCL—YAHAGI
- OBB—FUJI—training auxiliary
- OBB—SHIKISHIMA—training auxiliary

## TRAINING CRUISERS

### KATORI Class

CL (T) 2—KASHIMA

## MINELAYERS (Large)

- CM 1—TOKIWA  
(ex OCA; OCA 1—ASAMA is a sistership)

### HATSUTAKA Class

CM 7—HATSUTAKA  
CM 9—WAKATAKA

## CONVERTED MINE-LAYERS

- XCM 2—CHOAN MARU
- XCM 3—NICHYU MARU
- XCM 4—KINJO MARU
- XCM 5—KOEI MARU
- XCM 6—MINSEI MARU
- XCM 8—SHINKO MARU

### TATSUHARU MARU Class

XCM 9—TATSUHARU MARU  
XCM 10—TATSUMIYA MARU

## MINESWEEPERS (Fleet Sweepers)

### NO. 1 Class

AM No. 1	AM No. 4
AM No. 2	AM No. 5
AM No. 3	

### NO. 13 Class

AM No. 13	AM No. 15
AM No. 14	AM No. 17

### NO. 7 Class

AM No. 8	AM No. 12
AM No. 11	

### NO. 19 Class

AM No. 19-24	AM No. 34
AM No. 27	AM No. 38
AM No. 29	AM No. 39
AM No. 30	AM No. 41
AM No. 33	

### NO. 101 Class, ex British

AM No. 101 AM No. 102

Number represents ship's name and has been adopted as design designation.

## GUNBOATS

- PG 2—SAGA
- PG 3—ASUGA
- PG 4—ATAKA
- PG 5—HITONOSE  
(ex Chinese MING SEN)

### HASHIDATE Class

PG 7—UJI

## SUBMARINE CHASERS—(Large)

### PC 1 Class (includes former PC 4 Class)

PC 1-10	PC 12
---------	-------

### PC 13 Class (includes former PC 50 Class)

PC 14-15	PC 35-37
PC 17-21	PC 41-44
PC 23	PC 46-47
PC 26	PC 49-52
PC 28	PC 56-63
PC 30-31	PC 67
PC 33	PC 109

## SUBMARINE CHASERS—(Small)

### SCS 1 Class

SCS 3-9	SCS 41-45
SCS 11-13	SCS 48
SCS 16-17	SCS 50-52
SCS 20	SCS 55
SCS 24	SCS 57-61
SCS 27	SCS 63-94
SCS 29	SCS 96-100
SCS 32	SCS 151-164
SCS 34	SCS 166-177
SCS 36-37	

### SCS 101 Class (captured Dutch units)

SCS 101-117

### SCS 251 Class (formerly called SCS 51 Class)

SCS 251

• Denotes single ship, not unit of class.

## MOTOR TORPEDO BOATS

### PT 1 Class

(Adapted from Italian design)  
PT 4

### PT 101 Class

(Dutch built; salvaged at Soerabaya)

PT 101

PT 109-113

PT 114, ex Philippine Q III

PT 115-118

PT 121

### PT 10 Class

PT 10-16

### PT 151 Class

PT 151-156

### PT 201 Class

PT 201-205

PT 401-410

PT 213-218

PT 451-454

### PT 220 Class

PT 220-229

PT 421-425

PT 316-326

PT 455-456

PT 349-354

PT 501-505

### PT 235 Class

PT 235-240

### PT 241 Class

PT 241-286

PT 506-528

PT 457-467

### PT 301 Class

PT 301-315

### PT 327 Class

PT 327-348

PT 355-357

### PT 411 Class

PT 411-420

PT 470-473

PT 426-450

### PT 468 Class

PT 468

PT 482-490

### PT 469 Class

PT 469

### PT 474 Class

PT 474-481

### PT 538 Class

PT 538-553

PT 1101-1108

PT 838-900

Additional boats have been completed.

### HAYABUSA No. 1 Class

PGM Nos. 1-9

## LIST BY DESIGN CLASSES

### HAYABUSA No. 10 Class

PGM Nos. 10-26

PGM Nos. 51-73

PGM Nos. 204-211

### HAYABUSA No. 74 Class

PGM Nos. 74-100

PGM Nos. 201-203

## RIVER GUNBOATS

### • PR 1—TOBA

### HIRA Class

PR 2—HIRA

PR 4—KATADA

PR 3—HOJU

PR 5—SETA

### ATAMI Class

PR 6—ATAMI

PR 7—FUTAMI

### SUMIDA Class

PR 8—SUMIDA

PR 9—FUSHIMI

### • PR 10—MAIKO

(ex Portugese PR MACAU)

### • PR 11—TATARA

(ex USS WAKE)

### • PR 13—SUMA

(ex HMS MOTH)

### • PR 14—NARUMI

(ex Italian PR ERMANNIO CARLOTTO)

### • PR 15—OKITSU

(ex Italian OCM LEPANTO)

## (C) AUXILIARY TYPES

## SEAPLANE TENDER

### • AV 1—TAKACHIHO

(Name uncertain)

## CONVERTED SEA- PLANE TENDERS

### KAMIKAWA MARU Class

XAV 2—KUNIKAWA MARU

XAV 3—KIMIKAWA MARU

### • XAV 7—OKITSU MARU

• Denotes single ship, not unit of class.

### SANUKI MARU Class

XAV 8—SANUKI MARU

## AIRCRAFT TRANS- PORTS

### KAMOGAWA MARU Class

XAPV 4—KAMOGAWA MARU

## SUBMARINE TENDERS

### • AS 1—KOMABASHI

### JINGEI Class

AS 3—CHOGEI

## CONVERTED SUB- MARINE TENDERS

### • XAS 1—MANJU MARU

(ex SANTOS MARU)

## REPAIR SHIP

### • AR 3—OSHIMA

## SALVAGE VESSELS

### • ARS 1—KURIHASHI

• ARS 2—YODOHASHI

• ARS 3—SARUHASHI

## LIST BY DESIGN CLASSES

### CONVERTED SALVAGE VESSELS

- XARS 1—MATSUEI MARU  
(ex SHOEI MARU)
- XARS 5—ESA MARU  
(ex British salvage vessel, ELSIE MOLLER)
- XARS 6—HARUTA MARU

### FUEL OIL TANKERS

#### SUNOSAKI Class

AO 1—SUNOSAKI

#### SHIRETOKO Class

AO 2—SHIRETOKO

#### ONDO Class

AO 8—ONDO

AO 9—HAYATOMO

#### KINESAKI Class (formerly called HAYASAKI Class)

AO—KINESAKI (ex AG NANSHIN)

AO—HAYASAKI

AO—SHIRASAKI

AO—ARASAKI

(Also employed as AF's.)

- AO—NOSAKI (ex AG NANKAI)
- AO—KURASAKI (ex OHA MARU)

#### HARIO Class

—HARIO

- AO—NOTORO, (formerly cvs-1)
- AO—KAMOI, (formerly cvs-2)

### PROVISION STORE-SHIPS

- AF 2—KASHINO

#### MUROTO Class

AF 4—MUROTO

### COASTAL MINELAYERS (Called "Special Minelayers" by the Japanese)

#### TOSHIMA Class

CMC 1—TOSHIMA

CMC 2—KUROSHIMA

### CABLE LAYERS

#### HASHIMA (HATSUSHIMA)

##### Class

ARC 1—HASHIMA (HATSUSHIMA)

ARC 2—TSURUSHIMA

ARC 3—TATEISHI

ARC 4—ODATE

- ARC 5—TOYO MARU
- ARC 6—YAMABATO MARU

### MISCELLANEOUS AUXILIARIES

- AG 1—SETTSU  
(ex BB; target ship)
- AG—YAKAZE  
(ex DD; target ship)
- AG—HAKACHI  
(Target ship)
- AG—OHAMA  
(Target ship)
- AG—OSASHI (Target ship)
- AG 2—OTOMARI  
(Ice-breaker)

### SURVEYING SHIPS

- AGS 1—YODO (ex PG 1)
- AGS 2—KOSHU
- AGS 3—KATSURIKI, (ex CM—2)

### PATROL VESSELS

#### PATROL BOAT NO. 1 Class

No. 2

#### PATROL BOAT NO. 31 Class

No. 34

No. 38

36

### PATROL BOATS

- No. 46

### (D) DISTRICT CRAFT

CMC 3—KATOKU

CMC 4—ASHIZAKI

CMC 5—WASHIZAKI

CMC 6—ENTO

CMC 7—KATASHIMA

CMC 8—KUROKAMI

- No. 102
- No. 103  
(ex US AM—FINCH)
- No. 104  
(ex Dutch)
- No. 105  
(ex US ARAYAT)
- No. 106  
(ex Dutch DD—BANCKERT)
- No. 107  
(ex USS GENESEE)
- No. 108  
(ex Dutch AREND)
- No. 109

### TRANSPORTS (YUSOKAN)—APD

(Listed by the Japanese as "First-Class Transports")

Ships are numbered in one and two-digit numbers.

### AUXILIARY TRANSPORTS (TOKUSETSU YUSOKAN)—LSM

(Listed by the Japanese as "Second-Class Transports")

Ships are numbered starting with 101.

The following class names have been reported:

#### HA Class

#### I Class

#### NI Class

### ATTACK TRANSPORTS—APA

TAMATSU MARU

KIBITSU MARU

DAYASAN MARU

These ships are similar in design; more units are believed to exist.

CMC 9—ENOSHIMA  
CMC 10—KUROZAKI  
CMC 11—NINOSHIMA

#### CMC No. 1 Class

CMC No. 3

- CMC No. 101

• Denotes single ship, not unit of class.

## LIST BY DESIGN CLASSES

### SMALL MINELAYERS

(Japanese designation)

#### TSUBAME Class

CMC 12—TSUBAME

#### SOKUTEN Class

CMC 19—KYOSAI

CMC 20—NARIU

CMC 22—YURISHIMA

CMC 23—NUWASHIMA

CMC 24—MAESHIMA

CMC 27—TAKASHIMA

CMC 28—ARAIZAKI

CMC 29—ISHIZAKI

CMC 31—SAISHU

CMC—NIIZAKI

CMC 22-31—Formerly designated

YURISHIMA Class

#### AJIRO Class

CMC—AJIRO

### COASTAL MINESWEEPERS

(Called "Special Minesweepers" by the Japanese)

#### No. 3 Class

AMC No. 3-22

• AMC No. 101-107

### (E) HOSPITAL SHIPS

AH 1—AMERICA MARU

AH 2—YOSHINO MARU

AH 3—FUSO MARU

AH 4—SEATTLE MARU

AH 5—SIBERIA MARU

AH 6—CHICAGO MARU

AH 7—MIZUHO MARU

AH 8—ASAHI MARU

AH 9—KOHOKU MARU

AH 10—MANILA MARU

AH 11—ARABIA MARU

AH 12—HOKUSHIN MARU

AH 13—BAIKAL MARU

AH 14—MURO MARU

AH 15—TENOMARU

AH 16—MIKASA MARU

AH 17—BUENOS AIRES MARU

AH 18—URAL MARU

AH 19—HIKAWA MARU

AH 20—RYUKO MARU

AH 21—TACHIBANA MARU

AH 22—TAKASAGO MARU

AH 23—HIKAWA MARU #2

### (F) AVAILABLE NON-JAPANESE WARSHIPS

(Design class list, through Principal and Minor Combatant Types, of Siamese, Nanking-Chinese, Manchukuan, ex French, ex British, and ex U. S. units, believed available to Japan.)

### PRINCIPAL COMBATANT TYPES

#### LIGHT CRUISERS

##### NING HAI Class

NING HAI

PING HAI

(Chinese)

#### DESTROYERS

##### • HAI WEI

(Manchukuo, ex Japanese

KASHI (Momo Class))

##### • PHRA RUANG

(Siamese, ex British RADIANT ("THORNYCROFT M" Class))

##### • THRACIAN

(ex British ("ADMIRALTY S" Class); status doubtful)

##### VAN GHENT Class

WITTE DE WIT

(ex Dutch; status doubtful)

• Denotes single ship, not unit of class.

#### TORPEDO BOATS

##### TRAD Class

TRAD

PUKET

RAYONG

CHANDARABURI

SURASDRA

PATTANI

JUMBARA

(Siamese)

#### FUEL OIL TANKERS

##### • AO SAMUI

(Siamese)

NOTE: USS STEWART, Old World War I "Flushdecker" DD, may have been refitted after salvaging.

#### SUBMARINES

##### VIRUN Class

VIRUN

MACHANU

SINSAMUDAR

BLAI JUMBOL

(Siamese)

#### MINOR COMBATANT TYPES (less PC, SC, PT and PR)

#### COAST DEFENSE SHIP

##### RATANAKOSINDRA Class

RATANAKOSINDRA

SUKHODAYA

(Siamese)

##### DHAMBURI Class

DHAMBURI

SRI AYUDHYA

(Siamese)

#### MINESWEEPERS

##### • CHAO PHYA

(Siamese; ex British HAVANT (old "HUNT" Class))

#### GUNBOATS—ESCORT TYPE

##### • YAT SEN

(Chinese)

##### • AMIRAL CHARNER

(ex French, BOUGAINVILLE Class)

##### TAHCHIN Class

TAHCHIN

MAEKLONG

(Siamese)

#### YACHT

##### • ANGTHONG

(Siamese)



# JAPANESE NAVAL VESSELS

## BB



KONGO CLASS



ISE CLASS



NAGATO

---

## CV



CV HAYATAKA



CV UNRYU CLASS



CVL HOSHŌ



CVL ZUIHŌ CLASS, ZUIHŌ



CVE KAIYŌ

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## CA



AOBA



NACHI CLASS



ATAGO CLASS



TONE

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## CL



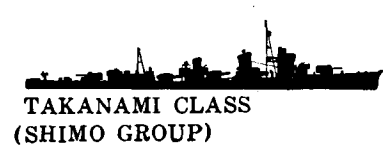
AGANO CLASS



OYODO

# JAPANESE NAVAL VESSELS

## DD

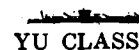
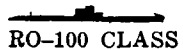
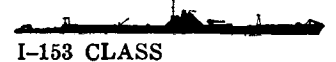


## DM

## TB



## SS



## PF



## NOTES

# NOTES

# NOTES

## **STATISTICAL AND PICTORIAL SUMMARY**

## General Remarks

The following general remarks apply to the material found in the statistical pages which follow:

### 1. For All Types of Warships

a. Figures for guns and torpedo tubes denote the actual number of barrels or tubes (not mounts). Where known, the type of mounting is mentioned.

b. It is believed that all major warships and most minor units are fitted with protection against magnetic mines.

### 2. For BB, CV, CVL, CVE, CA, CL, DD, TB, CM, AM, PG, PF, and PC.

a. All units are believed to be fitted with searchlights; present number and mark undetermined in most cases.

### 3. For BB, CV, CVL, CVE, CA, CL, DD, PF, APD.

a. All units believed fitted with some form of radar.

## Ships' Characteristics Glossary

Armor Thickness	figures shown, reported maximum and minimum thickness in inches. These figures do not indicate either the extent or distribution of armor plate of belts, decks, bulkheads, or armored structures.
BHP	brake horse power.
Boilers	only data given will be found under "Notes."
C. T.	abbreviation for conning tower. In surface ships this denotes armored ship and fire control stations other than in masts or tower-masts.
Caliber	the bore of guns with semi-automatic or non-automatic breech mechanisms (generally 3" and above) is given in inches; of automatic weapons—in millimeters (mm). Certain small guns in captured ships are designated by weight of shell, i. e.—"6 pdr," meaning "six pounder." Numeral following the slant is the length caliber.

Ceiling

D. Chgs.

Depth

Economical

Elev.

Endurance

H

H P

Max. Sust.

(oa)

pdr.

(pp).

Proj. (lbs)

Protection

Range

Reciprocating

re-loads

RPM

SHP

Stand.

TT

Turbine

Turbine, geared

(wl)

the vertical range of anti-aircraft (AA) guns, in terms of thousands of feet.

depth charges; the numeral indicates the number of charges normally carried.

as applied to submarines means diving depth, in feet.

economical speed.

elevation, maximum of gun mount. steaming endurance, in nautical miles.

as applied to submarine torpedo-tubes, indicates that these tubes can be re-loaded from within the pressure hull.

horse power

maximum sustained speed.

length, over-all.

see caliber.

length, between perpendiculars.

projectile weight.

see armor thickness.

the horizontal range of guns, in terms of thousands of yards.

compound, triple or quadruple expansion marine steam engines.

number of torpedoes carried, other than those in the torpedo-tubes.

revolutions per minute.

shaft horse power

standard.

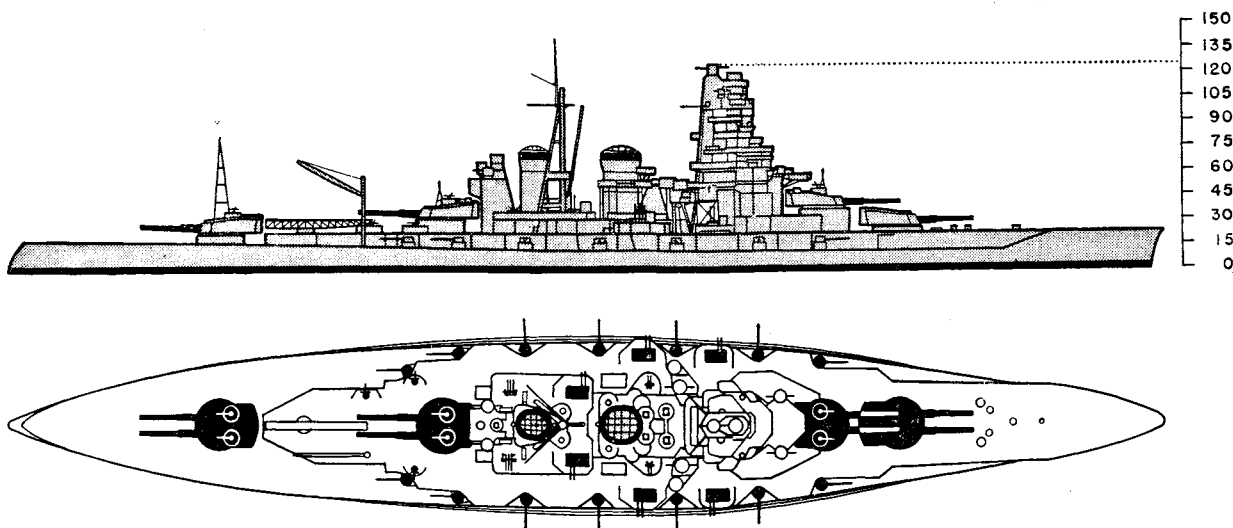
torpedo tube; numeral indicates the actual number of tubes, irrespective of the type of mount.

turbine, direct drive.

turbine, geared drive; turbine with reduction gears.

length, at water line, at standard displacement.





## BB—Battleships—KONGO Class

### BB 4—HARUNA

*Begun—March 1912*

*Completed—April 1915*

*Modernized—1929, 1934*

*Complement—1,250*

### Protection

8" Belt (amidships); 3" (ends);

6" Upper Belt; 6" Secondary Battery;

5"—4" Decks; 9"—5" Bulkheads;

9" Turret; 10" Barbette; 3/8" Shield;

10" Conning Towers (fwd); 6" (aft).

Splinter Protection: .....

Watertight Integrity: Very good (bulges).

Damage Control: Good.

### Dimensions

Displacement: 30,000 tons (stand.).

Length: 704' 0" (oa).

Beam: 98' 0" over bulges (at water line).

Draft: 27' 6" (mean); ...' ..." (max.).

### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	26.0	.....	64,000	.....
*Full:	27.0	.....	.....	.....
Max. Sust:	.....	2,600	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	10.0	7,370	.....	.....

Drive: Turbines, direct; Screws: 4.

Fuel: Oil; Capacity: 4,500 tons (max).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
8	14"/45	41	35°	32,000	.....	1,400
14	6"/50	3	30°	21,000	.....	100
12	5"/40	89	85°	15,000	35,000	45
Director Control for above batteries						
8	3"/40	3	75°	12,000	25,000	14.5
10 25 mm (in twin mounts);						
1 catapult; 3 scout observation planes.						

### Notes

\*Full speed may be 30 knots, maximum endurance 9,000 nautical miles.

### Remarks

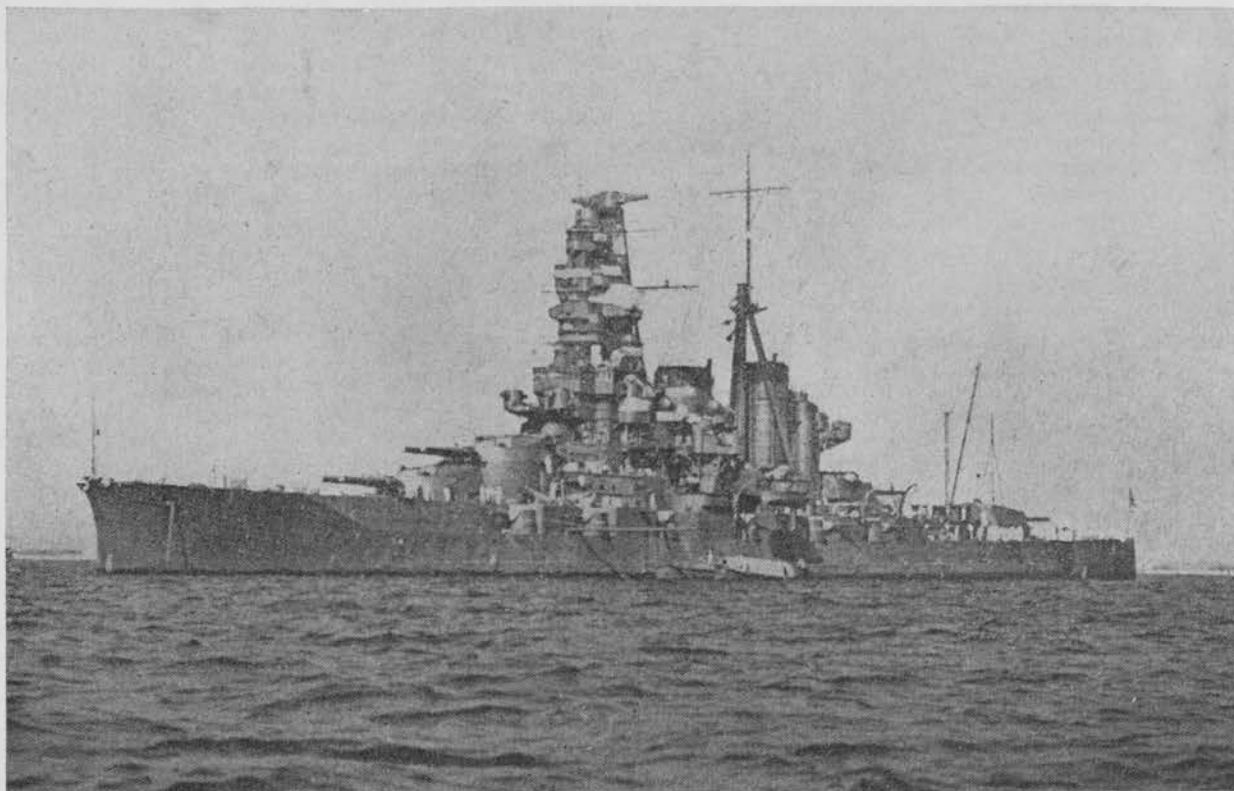
The KONGO Class set the basic pattern for Japanese battleship development through the KAGA Class of 1920. These units were the first Japanese dreadnaught capital ships having a center-line main battery plan and guns heavier than 12".

Designed by Sir George Thurston and built by Vickers, KONGO is very similar to HMS TIGER, Britain's most powerful battle-cruiser of World War I. She was the last Japanese capital ship to be ordered abroad; some of the material for her Japanese-built sisters was also imported.

Units of the KONGO Class were rated as battle-cruisers until their modernization of 1928-31, when protection was improved and all-oil boilers were installed. Increased angles of elevation and ranges for main and secondary batteries, and new antiaircraft armament fire and damage control systems were incorporated during the past 10 years. Despite these improvements, the HURUNA remains substandard in armor protection. Their speed advantage in Pacific operations has been partially neutralized by the appearance of the modern fast American battleships.



KONGO—December 1938.



HARUNA—1937



KONGO Class—October 25, 1944

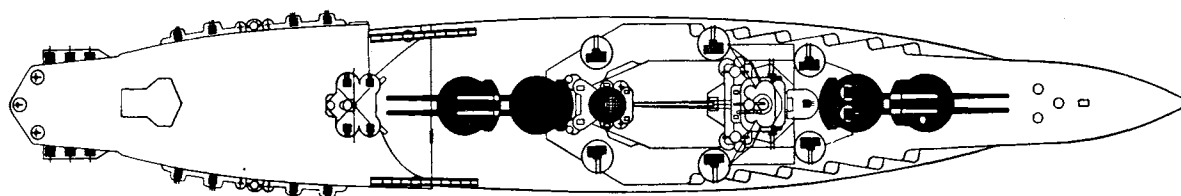
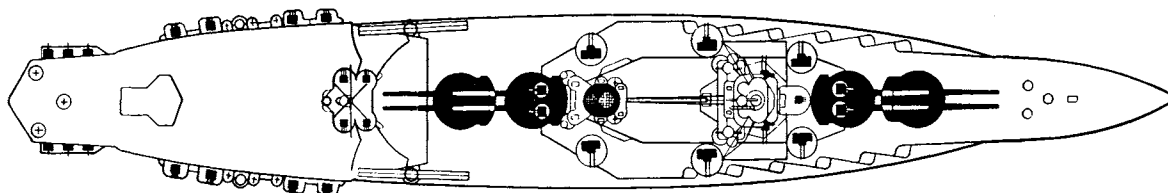
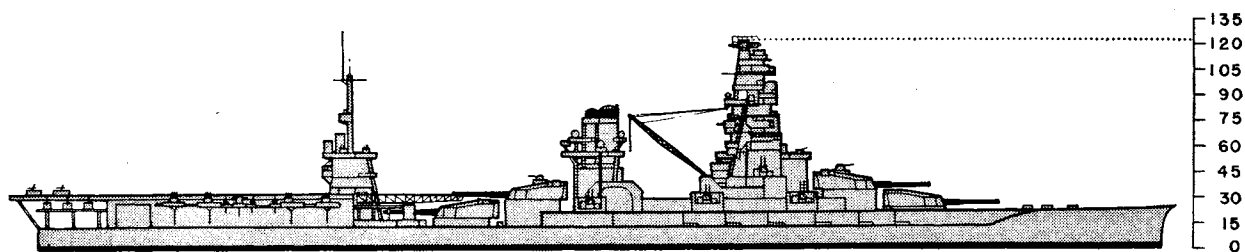


KONGO Class—October 26, 1944.



KIRISHIMA—December 1938.

## NOTES



## BB—Battleships—ISE Class (REFITTED)

### BB 7—ISE

*Begun—May 1915*  
*Completed—December 1917*  
*Modernized—1943-44*  
*Complement—1426*

### BB 8—HYUGA

*Begun—May 1915*  
*Completed—April 1918*  
*Modernized—1943-44*  
*Complement—1424*

### Dimensions

Displacement: 32,000 tons (stand.).  
 Length: 715' 0" (oa).  
 Beam: 94' 0" (hull without bulges).  
 Draft: 28' 8" (mean); ... (max.).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
*8	14"/45	41	35°	32,000	.....	1,400
**16	5"/40	89	85°	15,000	35,000	45

Director Control for above batteries.  
 20 25 mm (in twin mounts); 3 7.7 mm.;  
 2 catapults; 25 planes (reported).

### Protection

12" Belt (amidships); 5"-3" (ends);  
 8" Upper Belt; 6" Secondary Battery;  
 7 1/4" Decks; ... Bulkheads;  
 12" Turret; ... Barbette; 3/8" Shield;  
 12" Conning Towers (fwd); 6" (aft);  
 Splinter Protection: .....  
 Watertight Integrity: Very good (bulges).  
 Damage Control: Good.

### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	23.0	.....	45,000	.....
Full:	25.5	.....	81,386	.....
Max. Sust.:	.....	4,600	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	10.0	9,000	.....	.....
Drive: Turbines, geared; Screws: 4.				
Fuel: Oil; Capacity: 4,500 tons (max.).				

### Notes

- \*In converting these ships, 4 14"/45 guns, the No. 5 and No. 6 turrets of main battery were sacrificed. In addition, 16 5.5"/50 casemate guns have been removed.
- \*\*Eight gun positions, probably for triple 25-mm mounts, line flight deck, port and starboard. Near fantail, 6 smaller mounts are ranged in two platforms port and starboard. Four possible 25-mm triple mounts have been added atop mainmast structure and a mount has replaced the two rangefinders abaft No. 2 turret. When first photographed, one unit of refitted ISE's mounted the starboard catapult at a higher level than the port catapult. Note variation in drawings above.

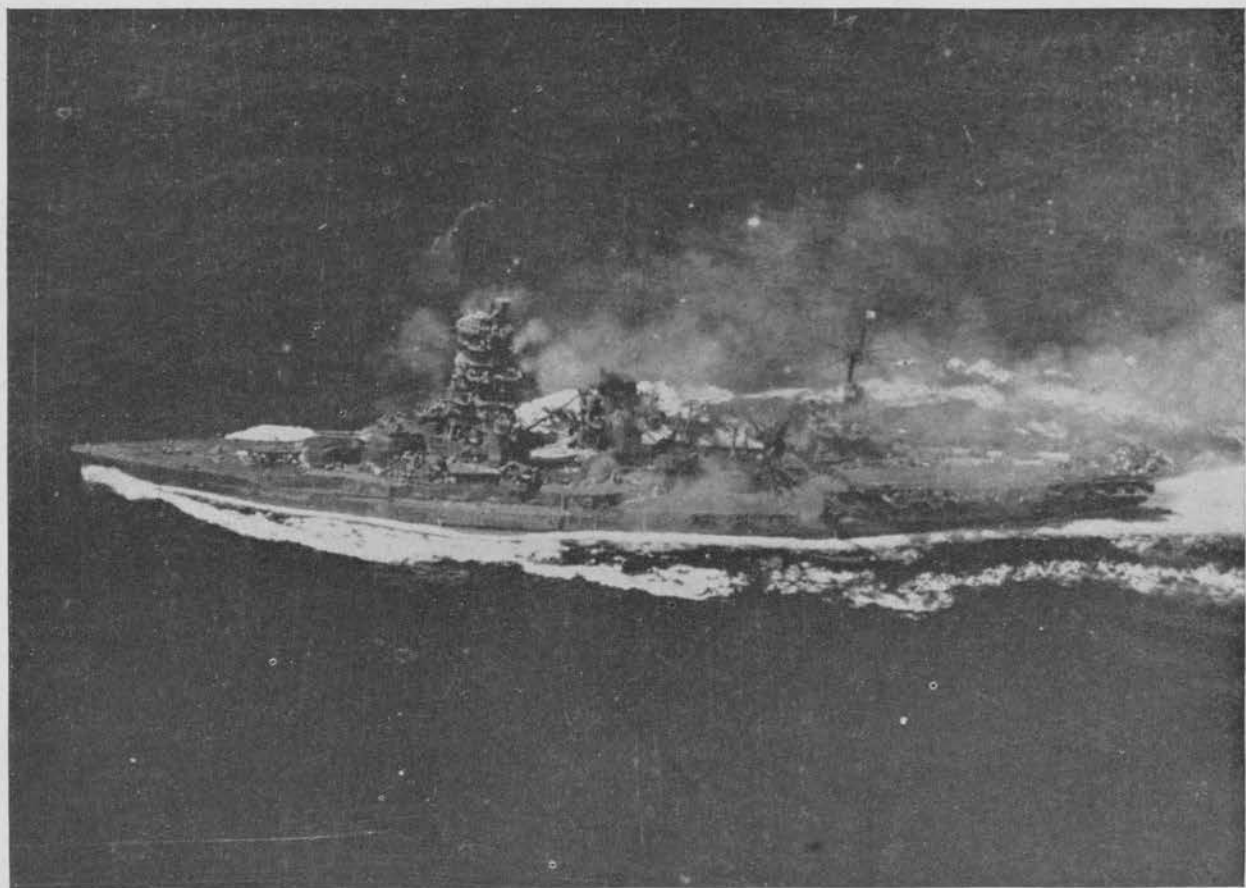
## Remarks

Units of this class were developed through the FUSO Class from the KONGO design, speed being sacrificed for greater gun power and protection. The ISE Class was apparently intended to offset the contemporary American PENNSYLVANIA and NEW MEXICO Classes of 12 14"-gun battleships. A slight speed advantage and a heavier secondary battery were expected to compensate for the superior armor protection of their trans-Pacific counterparts. Japanese refusal or inability to adopt the triple turret resulted in the six twin turret system, arranged as in the USS ARKANSAS. With the NAGATO Class, these vessels formed Japan's most powerful group of active capital ships until the advent of the modern YAMATO Class.

The ISE Class was probably built of Japanese material, as their construction occurred at a time when both Great Britain and the United States were engaged in the first World War. As first commissioned, with two stacks and two tall, unencumbered tripod masts, they were very handsome vessels. Their 1933-36 modernization was apparently quite thorough. Such external changes as the removal of the forward stack, addition of blisters, mounting

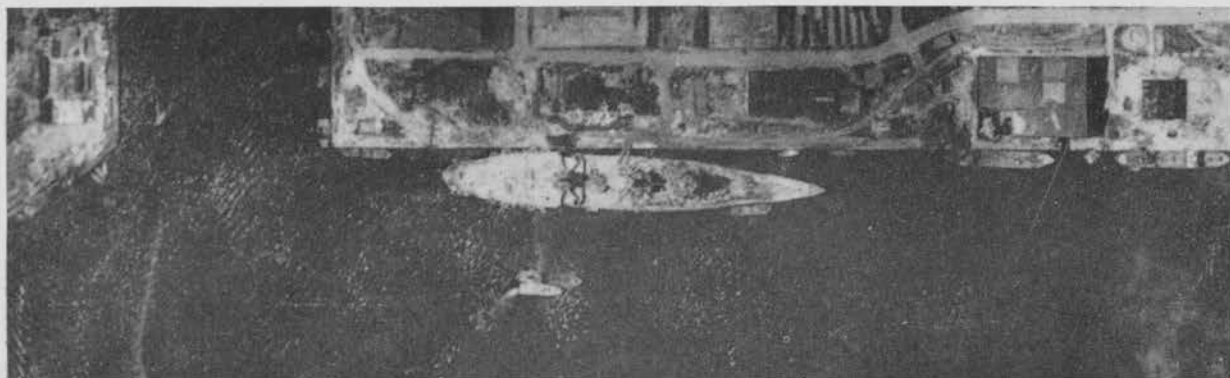
of a new AA battery and additions to the foremast-bridge structure reflect the probable installation of new boilers and engines, and improvements to armament and protection. One unit of this class has recently displayed an unusual capacity to resist underwater damage.

Recent alterations to the ISE's made them the first hybrid "Battleship-Aircraft Carriers" in the world. This makeshift expedient was probably dictated by the depleted Japanese regular aircraft carrier force; it may have been intended as a temporary measure to maintain shipborne air strength pending the commissioning of replacement carrier tonnage. An aircraft platform stowage deck, catapults, and aircraft handling and servicing equipment were substituted for the after group of 14"-gun turrets, thus reducing main battery fire power by 33 percent. The 5.5" secondary casemate battery was also removed, presumably in favor of increased antiaircraft armament. Recent photographic coverage indicates the removal of the catapults from both units. It is possible that the stowage decks may be utilized as large antiaircraft platforms. Restoration of the main battery to its original 12 guns now appears doubtful, in view of the course of the war.



ISE Class—October 25, 1944. Note asymmetrical catapult arrangement.





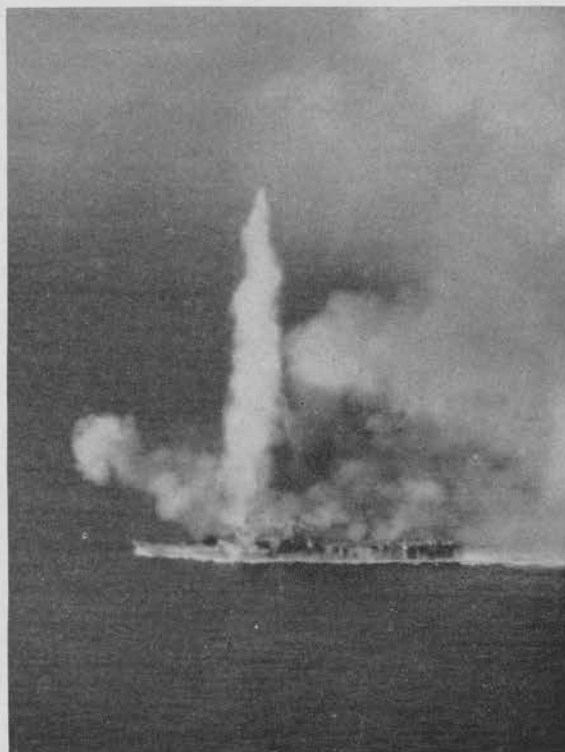
ISE Class, Singapore—February 10, 1945. Catapults removed.



ISE Class—October 25, 1944.



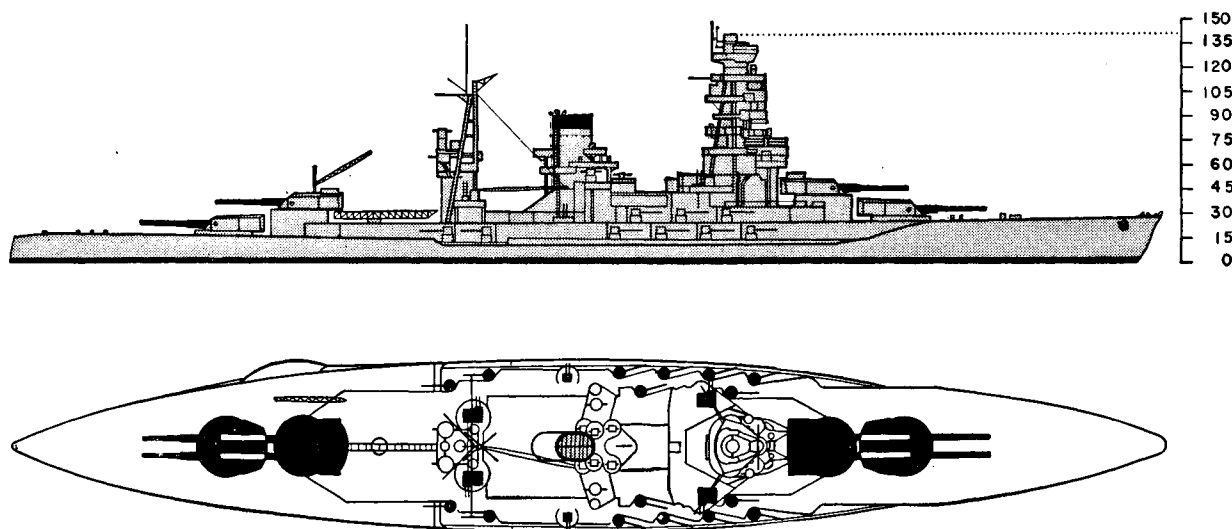
ISE Class—October 25, 1944.



ISE Class—October 25, 1944.



## NOTES



## BB—Battleships—NAGATO Class

### BB 9—NAGATO

*Begun—August 1917*

*Completed—November 1920*

*Modernized—1935-36*

*Complement—1317*

### Dimensions

Displacement: 34,000 tons (stand.).

Length: 700' 0" (oa).

Beam: 95' 0" (hull without bulges).

Draft: 30' 0" (mean); ... (max.).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Cell. (ft.)	Proj. (lbs.)
8	16"/45	3	35°	36,000	.....	2,205
*18	5.5"/50	3	30°	19,000	.....	84
*8	5"/40	89	85°	15,000	35,000	45

Director control for above batteries.

1 catapult; 3 scout observation planes.

### Protection

14" Belt (amidships); 8"-4" (ends);

... Upper Belt; ... Secondary Battery;

7" Decks; ... Bulkheads;

16" Turret; ... Barbette; 3/8" Shield;

14" Conning Tower (fwd.).

Splinter Protection:.....

Watertight Integrity: Very good (bulges).

Damage Control: Good.

### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	23.0	.....	80,000	.....
Full:	26.0	.....	.....	.....
Max. Sust.:	.....	4,700	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	10.0	10,500	.....	.....

Drive: Turbines, geared; Screws: 4.

\*\*Fuel: Oil; Capacity: 3,400 tons (max.).

### Notes

\*Secondary and AA batteries may have been changed.

\*\*Fuel capacity may be higher.

Originally mounted 20 5.5" guns.

### Remarks

The NAGATO Class, as originally projected, was to comprise four units. These ships were the first of Japan's 16" gun capital ships and were design contemporaries of the American COLORADO's. The last two units of the class, KAGA and TOSA, were subsequently redesigned as larger ships—39,000 tons with ten 16-inch guns. The ships were launched but were not completed because of restrictions imposed by the Washington Naval Treaty. The NAGATO appears to be a logical development of the ISE Class, but mounting eight 16-inch guns rather than the twelve 14-inch guns on the ISE and HYUGA. The influence of the British QUEEN ELIZABETH Class is evident in hull proportions, speed and general arrangement of her design. Her system of armoring also appears to follow that of the British prototype. Though rated at 23 knots for many years, it now appears likely that the NAGATO's actual speed has always been around 25-26 knots.

The most outstanding outboard feature of NAGATO is the large heptapodal foremast with its numerous tops and bridges for fire and ship control purposes. The central vertical leg is thick enough to accommodate an electric lift running between the foretop and main deck. When first commissioned, NAGATO and MUTSU had two upright stacks. Around 1924-25 the forward stack was trunked toward the second stack; during the 1935-36 refit it was removed. Little is known about the modernization of these vessels, inasmuch as it has affected their external appearance to a lesser degree than did the reconstruction of the older battleships. New boilers, a reduction in the

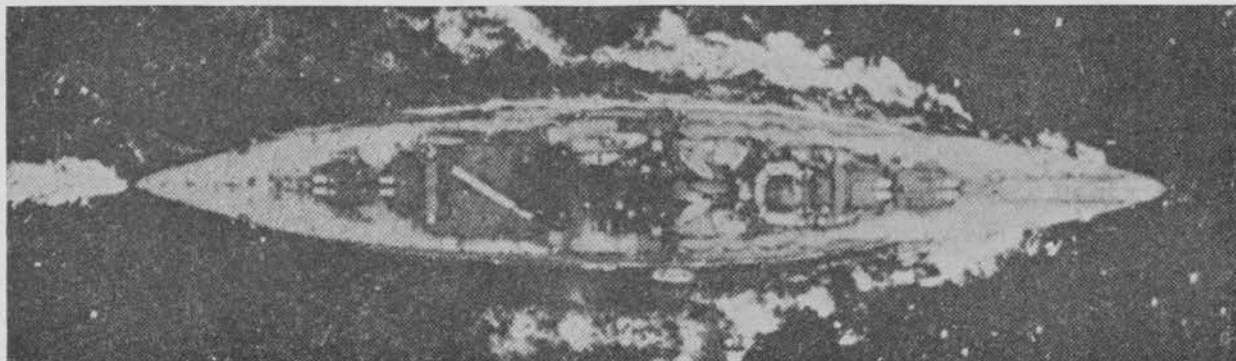
secondary battery and an increase in antiaircraft armament have been definitely established, although fire and damage control systems were probably modernized as well. Protection may have remained virtually unchanged.

The design is reported to provide for 560 separate watertight compartments.

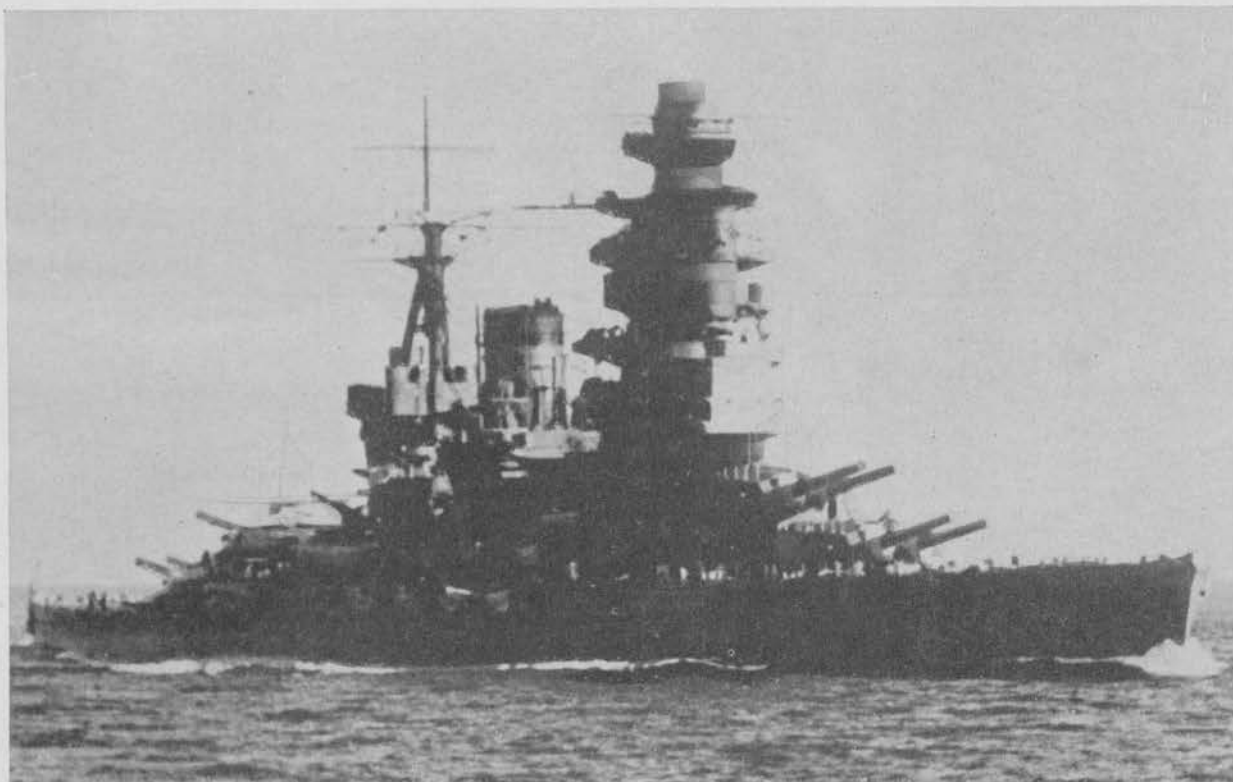
In combat value, the NAGATO may be placed somewhere between the COLORADO and NORTH CAROLINA Classes. The loss of the MUTSU by accidental explosion was therefore a heavy blow to Japanese naval surface strength.



MUTSU (pre-war).



MUTSU (pre-war).



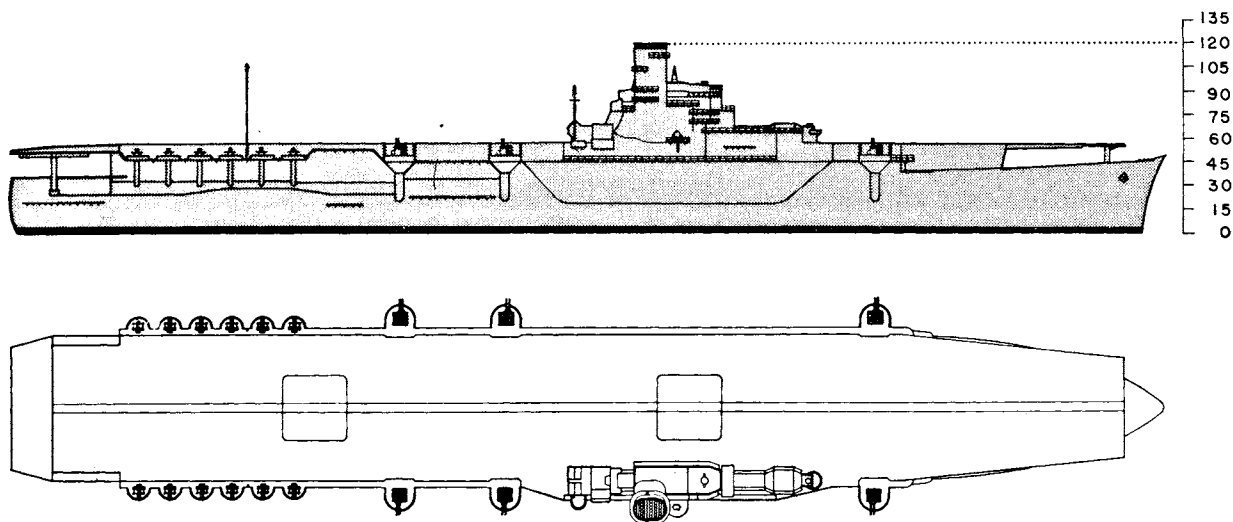
MUTSU (pre-war).



NAGATO—October 24, 1944.



NAGATO—1938.



## CV—Aircraft Carriers—HAYATAKA (JUNYO) Class

### CV 8—HAYATAKA

*Begun—November 1939*  
*Completed—1942*  
*Complement—1,330*  
*Naval Name—HAYATAKA*  
*Alt. Naval Name—JUNYO*  
*Merchant Name—IZUMO MARU*

#### Dimensions

Displacement: 28,000 tons (stand.).  
 Length: 745' 0" (oa); 715' 0" (pp).  
 Beam: 88' 0" (hull); 93' 0" (flight deck).  
 Draft: ...'' (mean); 26' 6" (max.).

#### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
16	5"/40	89	85°	15,000	35,000	45

24 60 mm to 80 mm in 6-barrel rocket mounts; 40 20 mm (reported);  
 51 V .. type all (as CV);  
 95 V .. type all (as APV);  
 24 VF type .....; .. ready;  
 18 VB type .....; .. ready;  
 9 VT type .....; .. ready;  
 .. catapults.

#### Protection

.. ''-..'' Belt (amidships); ..'' ends; ..''-..'' Decks;  
 ..''-..'' Bulkheads;  
 Flight Deck: .....  
 Watertight Integrity: Good.  
 Damage Control:.....  
 .....

#### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	28.0	.....	45,000	.....
Full:	.....	.....	.....	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	.....	.....	.....

Drive: Turbines; Screws: 2.  
 Fuel: Oil; Capacity: .. tons (max.).

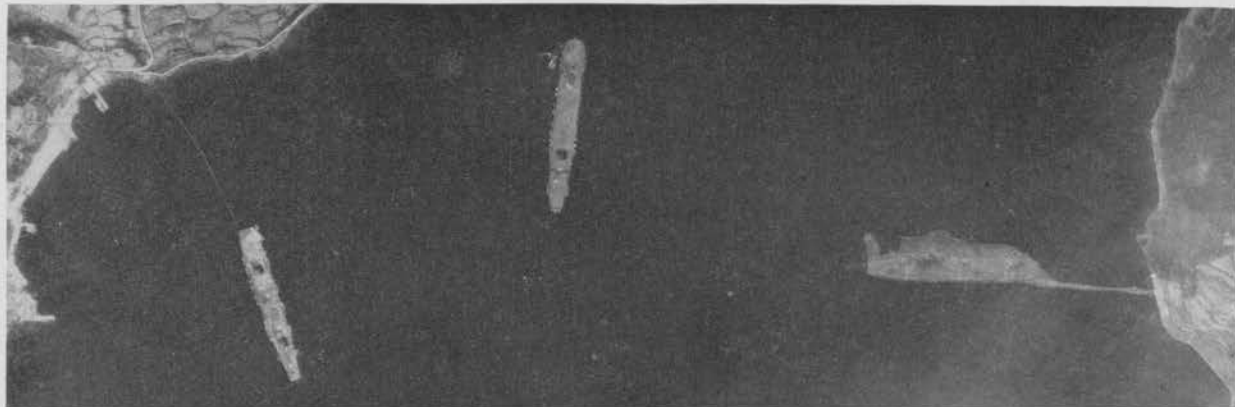
#### Notes

All data provisional. Fitted with air and surface search radar. Reported to have two hangar decks, running two-thirds the length of ship, and two elevators.

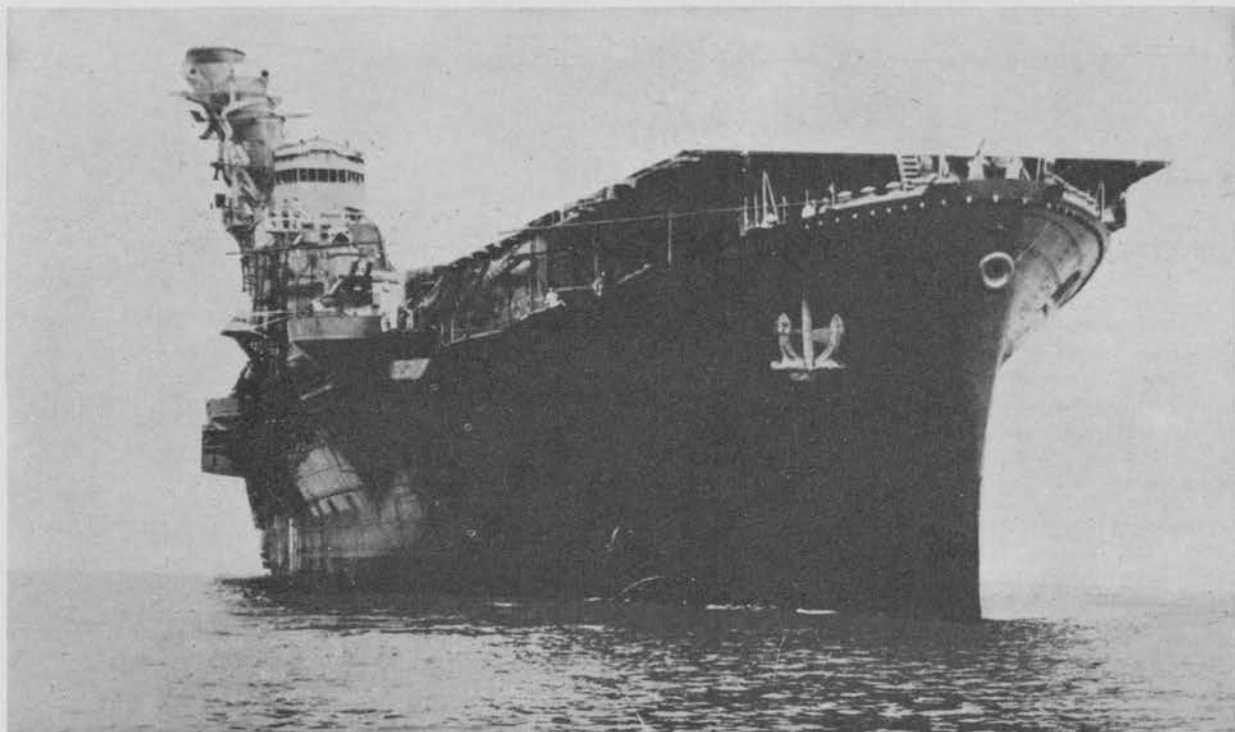
#### Remarks

The two units of this class were started as Government subsidized trans-Pacific express liners, and converted during construction to fleet carriers. They set a precedent, in modern times, for being the first ostensible merchantmen employed as first line combatant ships, though their original design may have allowed for their conversion.

One or both of these ships may have mounted rocket guns, a possible adaptation of the German 6-barrel 150-mm "Nebelwerfer," for use against low-flying aircraft. Although evidence is lacking, the size and design of these carriers should allow for light deck and side armor and considerable compartmentation. It is understood that the Japanese considered this class unsuccessful for first line carrier duties. One reported defect, insufficient flight deck length, is subject to confirmation.



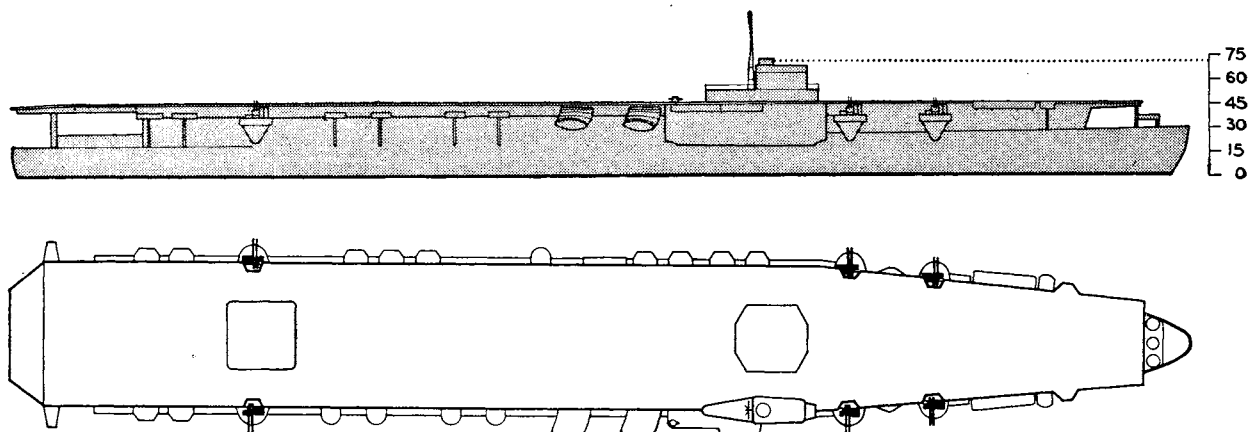
Camouflaged HAYATAKA at right; KASAGI of UNRYU Class in center; CVL, probably IBUKI, at left.  
Sasebo, April 16, 1945.



HAYATAKA Class.



HAYATAKA Class.



## CV—Aircraft Carriers—UNRYU Class

*Class built between 1942–1945*  
*Complement—1561*

CV AMAGI

CV KATSURAGI

CV KASAGI

\*CV ASO

\*CV IKOMA

### Dimensions

Displacement: 27,000 tons (stand.) (reported).  
 \*\*Length: 743' 0" (oa).  
 \*\*Flight deck width: 93' 0".  
 \*\*Plane capacity: 50.

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
**12	5"/40	89	85°	15,000	35,000	45

Undetermined number of AAMG.

### Notes

\*Still under construction.  
 \*\*Estimated.  
 Two elevators.  
 Profile drawing provisional.

### Remarks

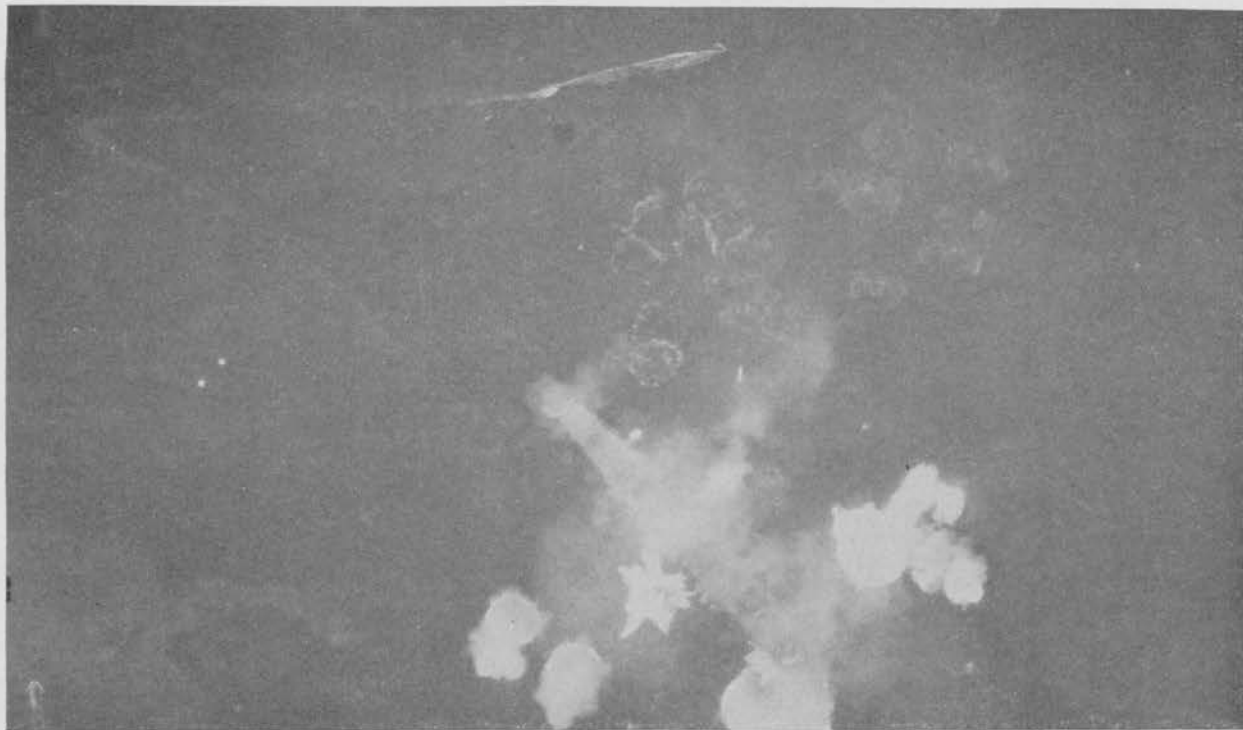
The UNRYU Class comprises the largest group of regular Japanese fleet carriers built or building to the same basic design. Except for UNRYU, which was given a carrier name, all other units were named for famous mountains, indicating a heavy or large cruiser origin. These ships were reported laid down as large cruisers of the same general type as the American ALASKA Class. Two designs were reported: one of 14,000 tons with 6 12" guns in twin turrets and another of 20,000 tons with 8 12" guns, also in twin turrets. As all of the units of this class observed to date scale to the same hull dimensions, it appears that only one of these designs, presumably the latter, was selected for the class. The UNRYU may have been begun after the decision to convert was made, and may never have borne a cruiser name.

An analysis of the incomplete IKOMA and ASO hulls substantiates their origin as large cruisers. The shape of the hull—the beam-length ratio and the fine taper fore and aft are characteristic of large cruiser design.

Units of the UNRYU Class bear a strong resemblance to the ill-fated SHOKAKU Class. The following features are similar: the shape of the flight deck, the location and size of the starboard island, and the two stacks below the level of the flight deck. The SHOKAKU's were larger ships, capable of carrying approximately 80 planes compared to UNRYU's estimated capacity of 50.

This type of conversion is interesting because it follows the precedent set by the British FURIOUS and COURAGEOUS Class, large cruiser conversions of the early 1920's. The American SARATOGA and Japanese AKAGI, former battle-cruisers, were converted into giant carriers under the terms of the Washington Naval Treaty.





KATSURAGI, Kure, March 19, 1945 with SS I-15 Class. Note camouflage on flight deck.



Two units of UNRYU Class, KATSURAGI and AMAGI, in center, top and bottom respectively. CVE KAIYO at right. Kure—March 19, 1945.





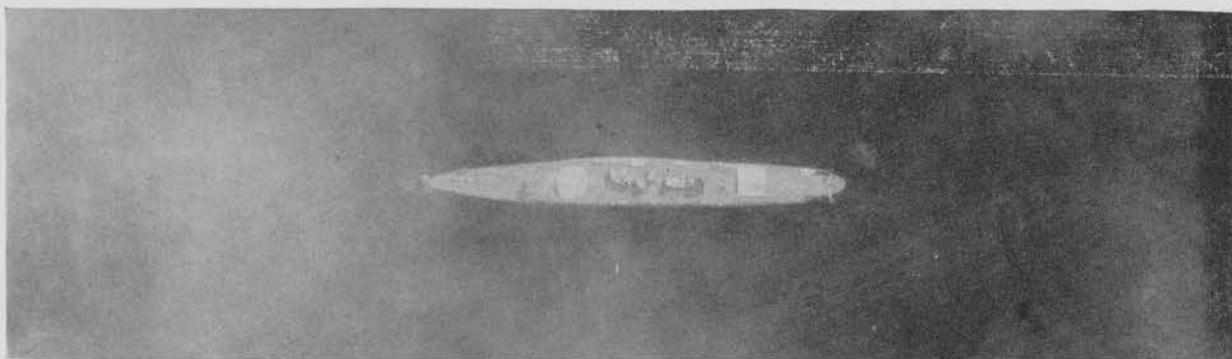
KASAGI at Nagasaki, March 28, 1945. Note island, starboard side, forward of two stacks.



AMAGI, Kure—March 28, 1945.



AMAGI, Kure—March 19, 1945. Note smoke from stacks.



ASO hull, Kure—March 19, 1945. Canvas has been stretched over elevators.

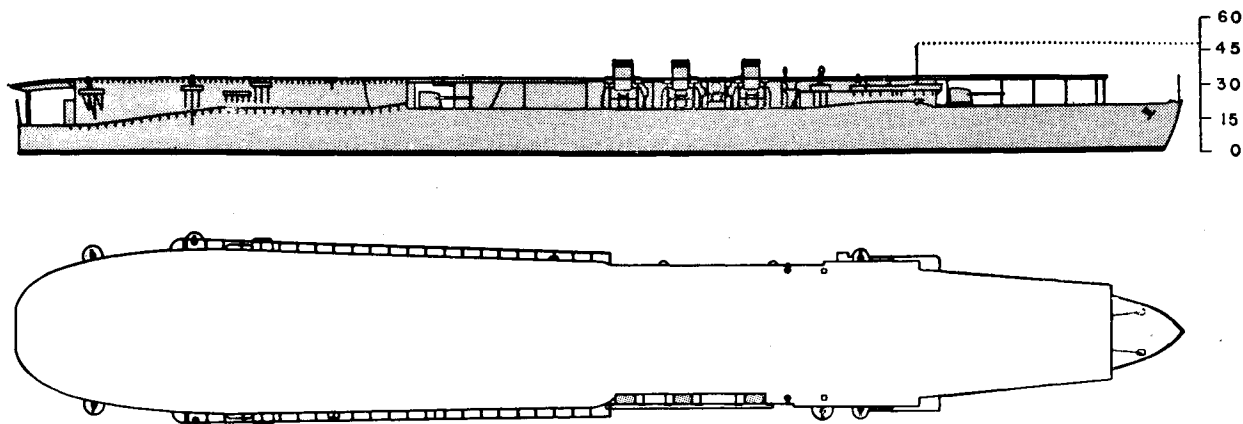


AMAGI, Kure—March 19, 1945 showing small island, starboard side.



ASO hull, showing flight deck supports near stern. BB ISE Class in background. Kure, March 19, 1945.

## NOTES



## CVL—Light Aircraft Carriers—HOSHO

### CVL 1—HOSHO

*Begun—December 1919*  
*Completed—December 1922*  
*Modernized—1940*  
*Complement—551*

#### Dimensions

Displacement: 7,470 tons (stand.).  
 Length: 552' 0" (oa).  
 Beam: 62' 0" (hull); 74' 0" (flight deck).  
 Draft: ...' ..." (mean); 15' 0" (max.).

#### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
4	5.5"/50	3	30°	19,000	.....	84
*2	3"/40	3	75°	12,000	25,000	14.5

12 VF type .....; 9 ready;  
 12 VSB type .....; 9 ready;  
 12 VTB type .....; 9 ready;  
 .. V.. type .....; ready;  
 .....; catapults.

#### Protection

....." Belt (amidships); ..... (ends);  
 ..... Decks, ..... Bulkheads.  
 Flight Deck: .....  
 Watertight Integrity: Fair.  
 Damage Control: .....  
 .....

#### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	25.0	.....	30,000	.....
Full:	26.0	4,500	.....	.....
Max. Sust.:	.....	4,900	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	10.0	6,000	.....	.....

Drive: Turbines, geared; Screws: 2.  
 Fuel: Oil; Capacity: 2,700 tons (max.).

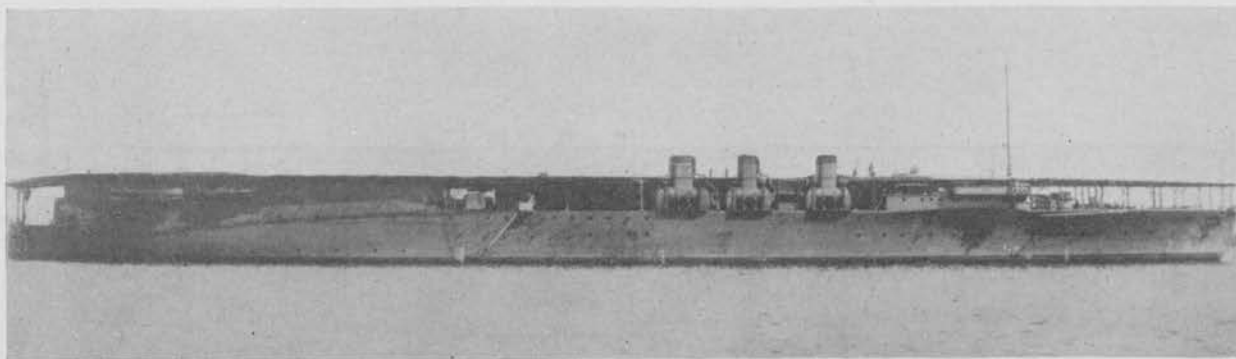
#### Notes

\*AA armament may have been increased, including close-defense AA weapons.  
 Reported used for training purposes.  
 Has two elevators.

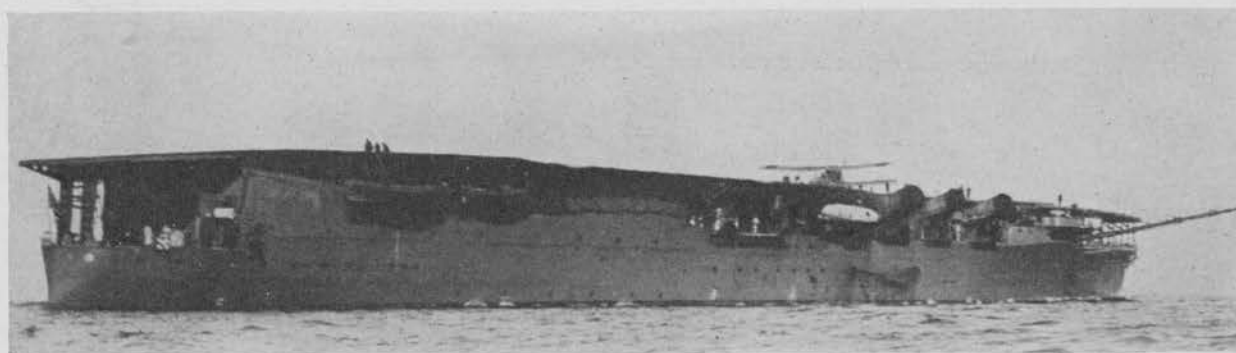
#### Remarks

HOSHO was Japan's first aircraft carrier and the world's second carrier designed and built as such from the keel up. Her basic design was apparently influenced by the British ARGUS. HOSHO is smaller, faster, and was built on a warship hull. She originally commissioned with a bridge-mast "island" superstructure, which was promptly removed—probably for reasons of stability. Her folding stacks are an adaptation of a Yarrow (British) invention of the nineteenth century. She is reported to be fitted with a gyro stabilizer. A sister ship, the SHOKAKU, was cancelled after the AKAGI and KAGA were slated for conversion to carriers under Washington Treaty terms.

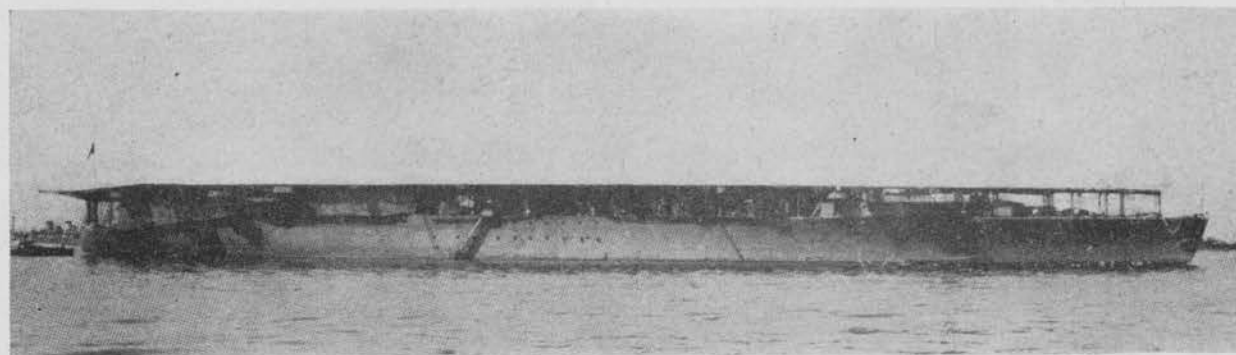
Modernized in 1939-40, the HOSHO is reported to have served primarily as a training ship during this war. Except that she is said to have two aircraft lifts, one forward and one aft, nothing is known of alterations affecting her performance, armament, or appearance. War experience would indicate an increase in her anti-aircraft battery, even at the expense of her few 5.5" low-angle guns.



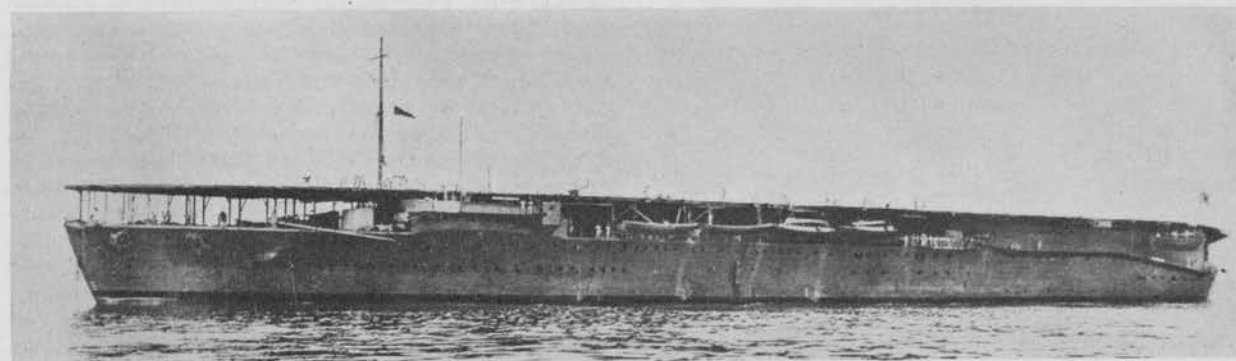
HOSHIO (pre-war).



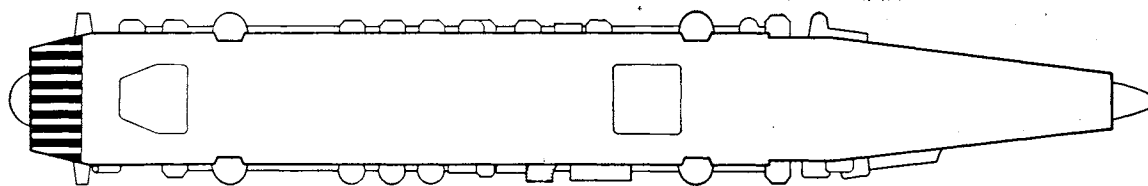
HOSHIO, 1939, with stacks lowered outboard.



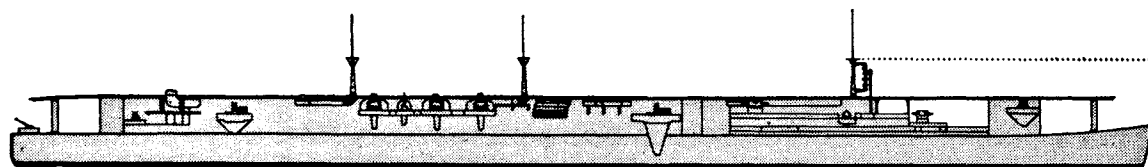
HOSHIO (pre-war).



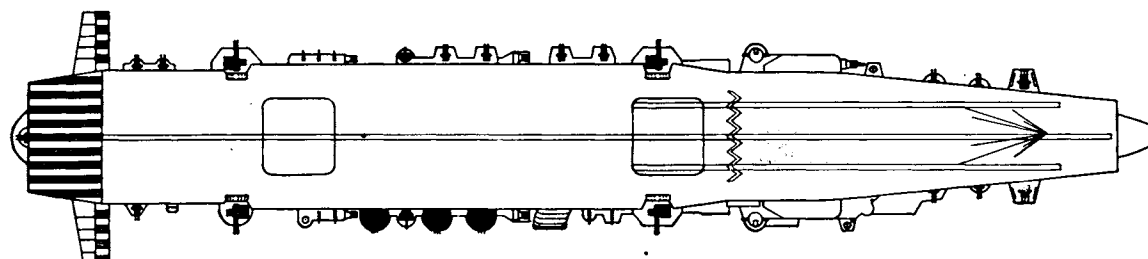
HOSHIO (pre-war).



RYUHO



105  
90  
75  
60  
45  
30  
15  
0



ZUIHO

## CVL—Light Aircraft Carriers—ZUIHO Class

### CVL 4—RYUHO

*Began—April 1933*

*Completed—March 1934*

*Converted to carrier in 1943*

*Complement—989*

#### Dimensions

\*Displacement: 15,000 tons (stand.).

Length: 712' 0" (oa).

Beam: 82' 0" (flight deck).

Draft: ....' ....' (mean); ....' ....' (max.).

#### Armament

No.	Cal.	Mark	Fle..	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
**8	5"/40	89	85°	15,000	35,000	45
40 V .... type all (as CV); .... ready;						
.. V .... type .....; .... ready;						
.. V .... type .....; .... ready;						
..... catapults.						

#### Protection

....." ..... Belt (amidships); ..... (ends);

....." ..... Decks; ..... Bulkheads.

Flight Deck: .....

Watertight Integrity: Good.

Damage Control: .....

#### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
***Designed:	25.0	.....	13,000	.....
Full:	.....	.....	.....	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	.....	.....	.....
Drive: Diesel; Screws: ....	.....	.....	.....	.....
Fuel: Oil; Capacity: .... tons (max.).	.....	.....	.....	.....

#### Notes

\*Before conversion from AS TAIGEI.

\*\*Armament figures are provisional.

\*\*\*Actual speed may be higher.

Has two elevators.

Plan and profile drawing represents ZUIHO, sunk in October 1944.

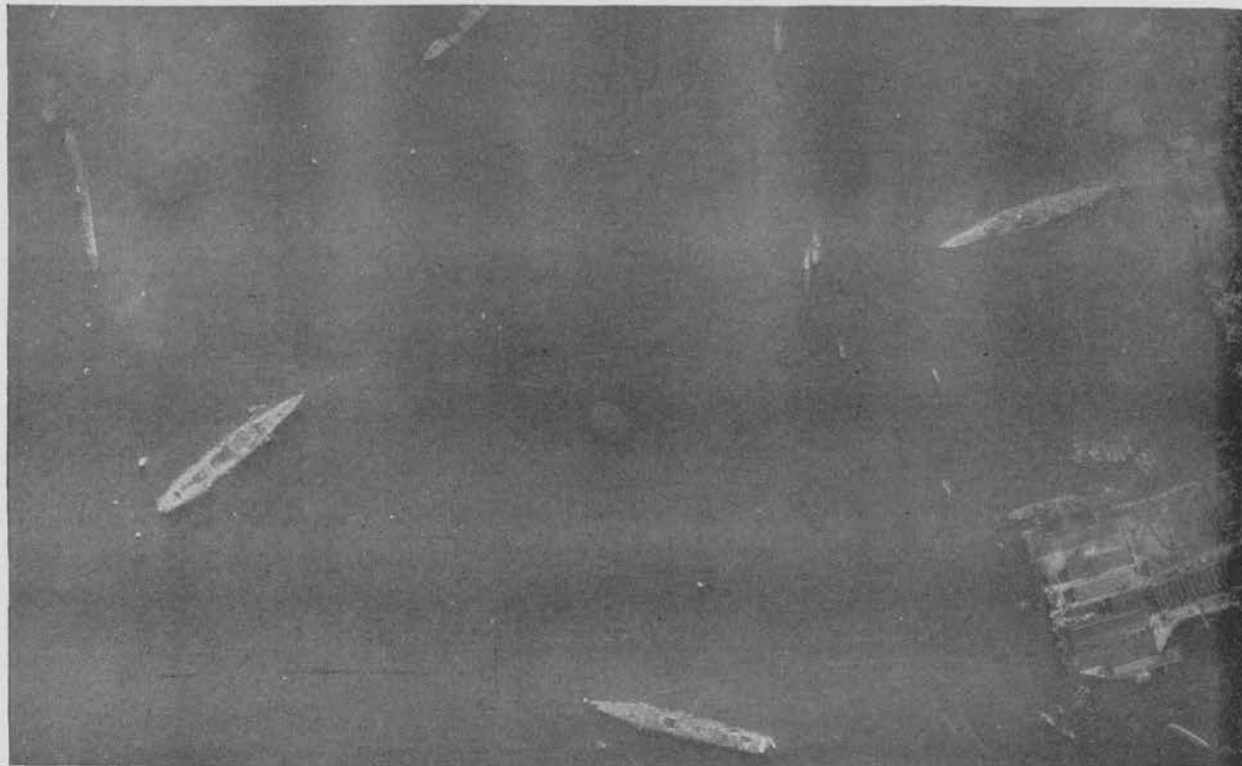
Plan drawing of RYUHO should be regarded as provisional.

### Remarks

RYUHO was converted during 1942-43 from the submarine tender TAIGEI, an unusual fleet auxiliary reported officially to have been built within a year. As the TAIGEI, her general appearance, dimensions, and superstructure arrangement indicated that she was intended for eventual conversion to a fast combatant ship rather than for tender duties. The TAIGEI is reported to have rolled badly due

to insufficient draft, though this reported defect and the draft figure have never been confirmed.

As converted, the RYUHO's design appears to follow the general pattern first observed in the SHOHO (sunk in the Battle of the Coral Sea) and later seen in great detail in the ZUIHO during the Battle for Leyte Gulf. ZUIHO and SHOHO were also converted from auxiliaries.



RYUHO, Kure—March 28, 1945. BB ISE Class at left, BB KONGO Class at right.



RYUHO, Kure—March 19, 1945.



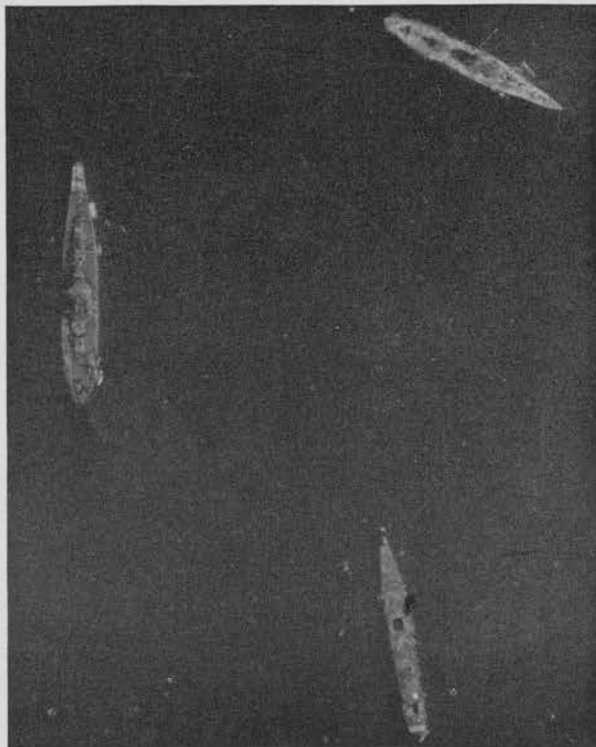
ZUIHO— October 25, 1944 prior to sinking. RYUHO similar in design to ZUIHO.



ZUIHO— October 25, 1944.



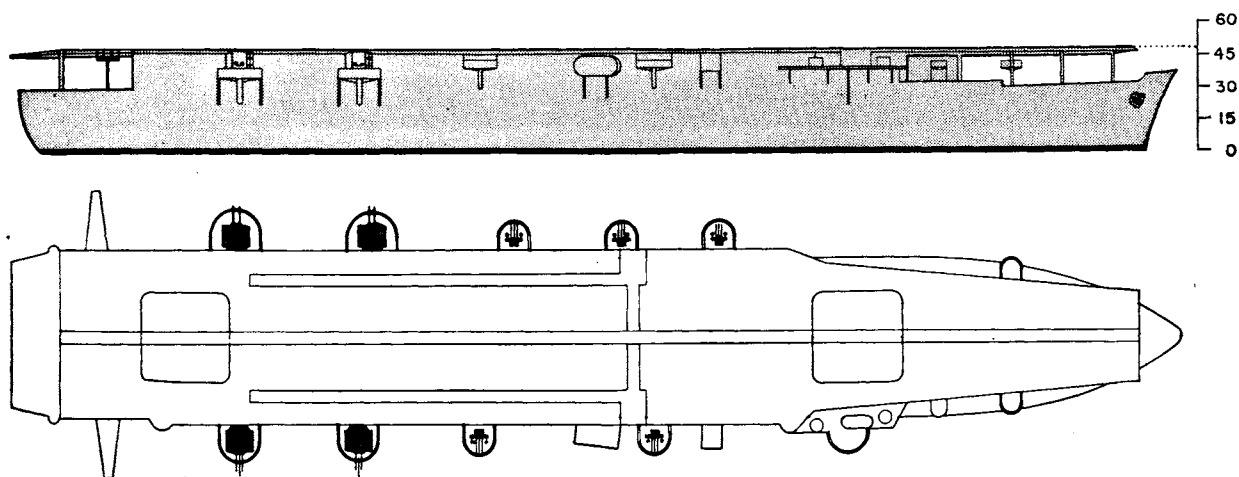
ZUIHO—October 25, 1944.



RYUHO, Kure—March 28, 1945. Note length in comparison with BB YAMATO, at left, and BB ISE Class, upper right.

## NOTES





## CVE—Escort Aircraft Carriers—KAIYO

### CVE 4—KAIYO

*Completed—1939*

*Modernized—1943*

*Complement—741*

*Merchant name—ARGENTINA MARU*

### Protection

..'' Belt (amidships); ..'' (ends);

..'' Decks; ..'' Bulkheads.

Flight Deck: .....

Watertight Integrity: Fair.

Damage Control: .....

### Dimensions

Displacement: 17,000 tons (stand.).

Length: 548' 0'' (oa); 516' 0'' (pp).

Beam: 69' 0'' (hull); 80' 0'' (flight deck).

Draft: ..' ..'' (mean); 29' 0'' (max.).

### Propulsion

	<i>Speed (knots)</i>	<i>Endurance (miles)</i>	<i>HP</i>	<i>RPM</i>
Designed:	22.0	.....	16,500	.....
Full:	.....	.....	.....	.....
Max. Sust.:	18.0	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	.....	.....	.....
Drive: Diesel; Screws: 2.				
Fuel: Oil; Capacity: .....				

### Armament

<i>No.</i>	<i>Cal.</i>	<i>Mark</i>	<i>Elev.</i>	<i>Range (yds.)</i>	<i>Ceil. (ft.)</i>	<i>Proj. (lbs.)</i>
8	5''/40	89	85°	15,000	35,000	45
..	.....	..	...	.....	.....	..
..	.....	..	...	.....	.....	..

40 V .. type all; .. ready;

.. V .. type all; .. ready;

.. V .. type all; .. ready;

.. V .. type all; .. ready;

.....; catapults.

### Notes

Data and drawing provisional.

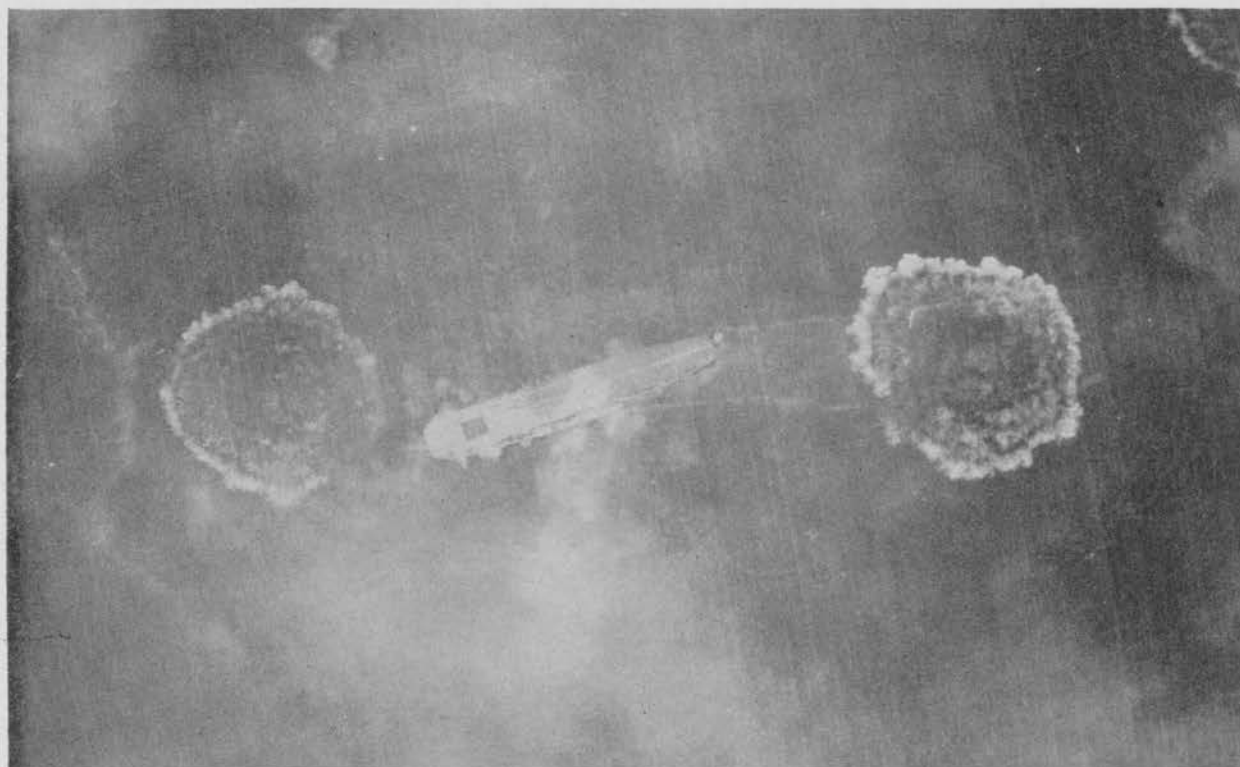
Undetermined number of AA guns.

Two elevators, one forward and one aft.

Converted from merchant liner.



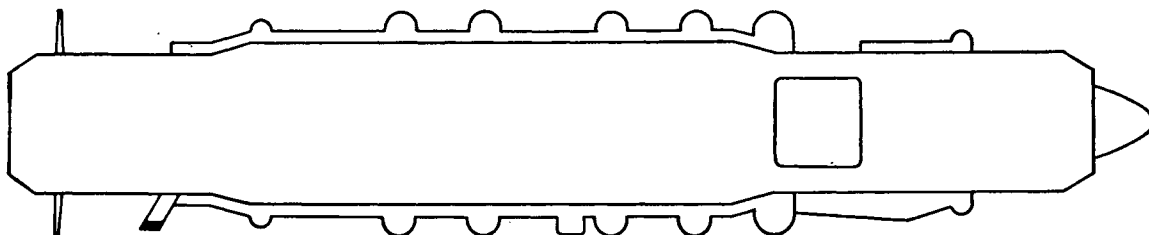
KAIYO, Takao—April 7, 1944.



KAIYO, Kure—March 19, 1945.



ARGENTINA MARU before conversion to CVE KAIYO. Dotted line represents probable location of flight deck.



## CVE—Escort Aircraft Carriers—Kobe Type

### 2 UNITS

*Built—1944-45*

#### Dimensions

Length—535' 0" (oa).

Beam—75' 0" (Flight deck width).

\*Displacement—10,000 tons gross.

#### Propulsion

\*\*Speed: 16.5 knots.

Steam turbine engines; SHP 9,500.

Fuel: Coal.

#### Notes

\*Pre-conversion.

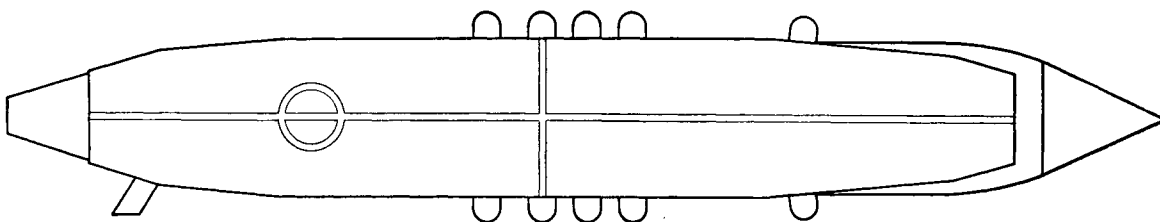
\*\*Normal cruising as AO. May be more as CVE.  
Converted from Type TL tanker.

One unit of this class completed in February 1945 at Kobe; second unit fitting out. A third tanker hull was launched in February 1945 and may be in process of conversion to CVE.

Number and location of guns undetermined.

Plane capacity: 30 (estimated).

One elevator.



## Escort Aircraft Carriers CVE—"MAC" Ship

*Built—1944-45.*

#### Dimensions

\*Displacement: 10,000 tons (gross).

Length: 520' 0" (oa).

Beam: 70' 0" (Flight deck width);

67' 0" (hull).

#### Propulsion

\*\*Speed: 13 knots.

Steam turbine engines; SHP—5,000.

Fuel: Coal.

#### Notes

\*Pre-conversion.

\*\*Normal cruising as AO. May be more as CVE.

Capacity as AO: 105,000 barrels.

Number and location of guns undetermined.

Plane capacity: 20 (estimated) as aircraft transport.

#### Remarks

This escort carrier design is the Japanese version of the British "MAC" Ship or Merchant Aircraft Carrier. There is no evidence of elevators or below-decks aircraft stowage, and it is presumed that these vessels can either transport aircraft, or operate their own antisubmarine aircraft detachment. These Japanese "MAC" Ships are being converted from Type TL (Modified) Tankers, and are believed capable of carrying oil cargo in addition to planes.

One unit was completed in Yokohama, January, 1945; two more are believed under construction.

A smaller version was seen under construction at Habu Shipyards, Inno Shima, in March 1945. This ship is estimated to be approximately 475 feet over-all.



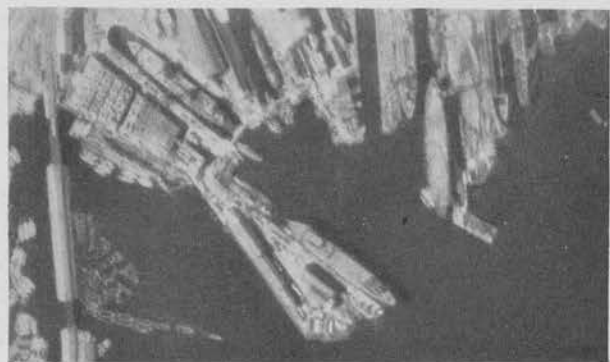
Two CVE's fitting out, one probable CVE hull on ways, Kawasaki Yards, Kobe—January 20, 1945.



Hull has now been launched and is fitting out. Kawasaki Yards, Kobe—February 27, 1945.



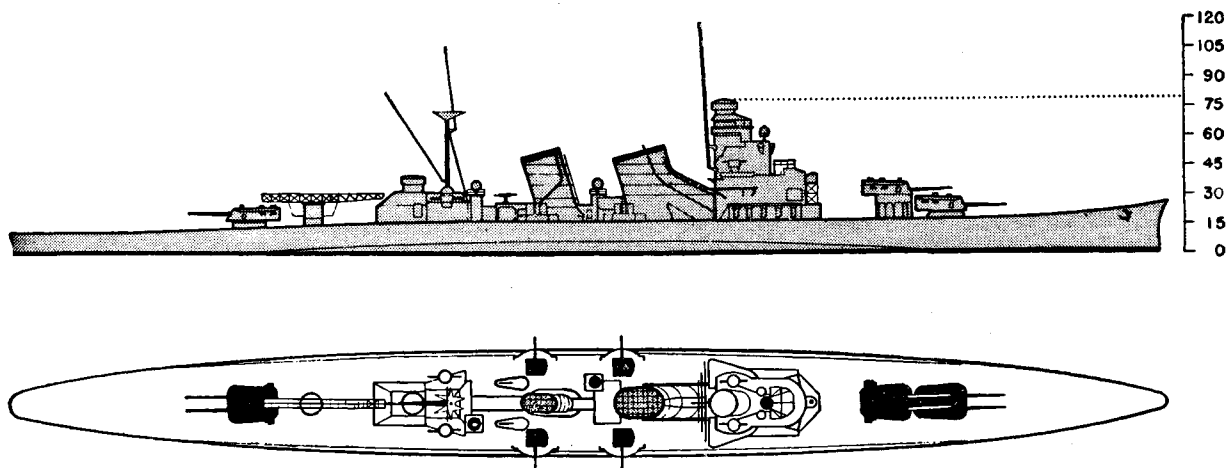
KOBE Type CVE. Note rectangular flight deck.



CVE "MAC" ships building and fitting out, Yokohama—January 28, 1945.



CVE "MAC" ship at Inno Shima—March 1945.



## CA—Heavy Cruisers—AOBA Class

### CA 3—AOBA

*Begun—February 1924*

*Completed—September 1927*

*Modernized—1938, 1940*

*Complement—657*

### Dimensions

\*Displacement: 9,000 tons (stand.).  
Length: 598' 0" (oa).  
Beam: 50' 9".  
Draft: 16' 0" (mean); ... (max.).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
6	8"/50	3	42°	31,100	254	254
**4	4.7"/50	10	85°	19,400	25,000	45

Director Control for above batteries.

8 25 mm AA.

\*\*\*8 24" TT; 8 reloads;

Depth Charges: Yes;

1 catapult; 2 scout observation planes.

### Protection

2" Belt (amidships); ... (ends);

... Upper Belt; ... Secondary Battery;

1½"-1" Decks; 1" Bulkheads;

1" Turret; ... Barbette; ¾" Shield;

5" at magazines (reported).

Splinter Protection .....

Watertight Integrity: Fair (modified bulges).

Damage Control .....

Propulsion	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	33.0	1,500	103,000	.....
Full:	.....	.....	110,500	.....
Max. Sust.:	.....	1,740	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	10.0	8,000	.....	.....
Drive: Turbines, geared; Screws: 4.				
Fuel: Oil; Capacity: 1,400 tons (max.).				
Fuel: Coal; Capacity: 400 tons (max.).				

### Notes

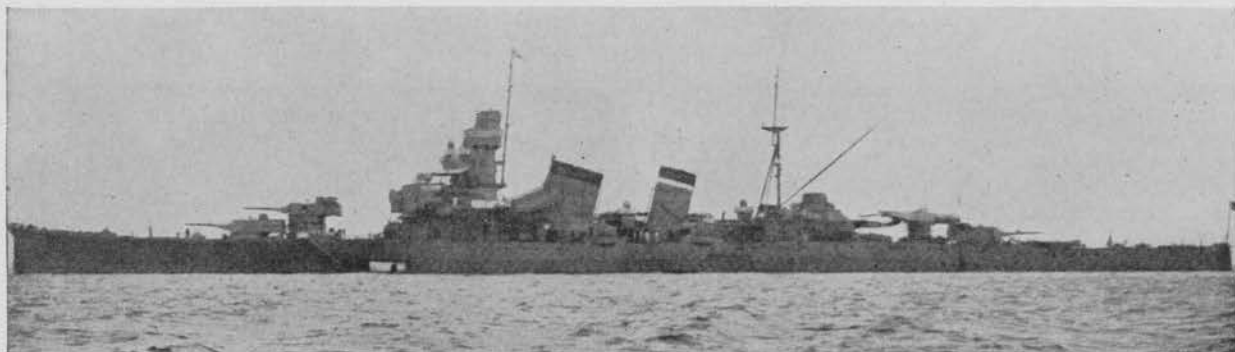
\*Full load displacement may be 11,660 tons.

\*\*AA armament may have been changed.

\*\*\*Original TT battery believed changed from 4 twin 24" TT mounts to 2 quadruple 24" TT mounts.

### Remarks

The AOBA Class and the preceding FURUTAKA Class comprised Japan's first group of modern 8"-gun cruisers. These ships were built immediately following the Washington Conference. It has been reported that units of this class were originally projected as slightly modified KUMA-NATORI Class light cruisers. In redesigning these units as heavy cruisers, the Japanese were influenced by the British 9,800 ton, 7.5"-gun cruiser HAWKINS. The construction of these ships was very light, protection was probably sub-standard, and internal arrangements were very cramped, making them a limited success as all-round cruisers. Two of the 10 boilers were fitted for mixed firing.



AOBA Class (pre-war).



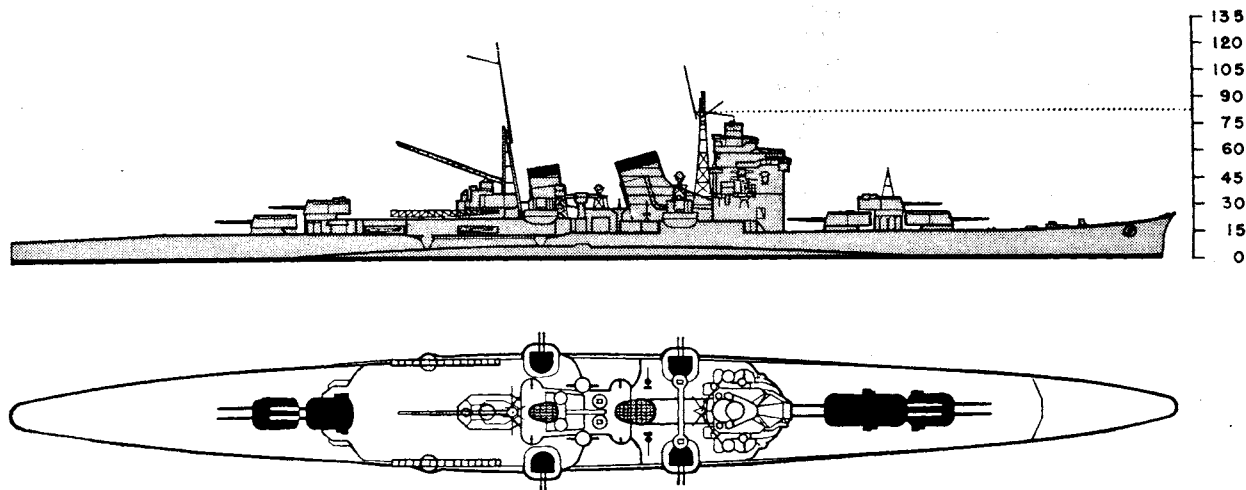
AOBA Class (pre-war).



AOBA Class—September 2, 1942.



AOBA Class (pre-war).



## CA—Heavy Cruisers—NACHI Class

One unit sunk, May 1945

### CA 6—HAGURO

Begun—March 1925  
Completed—April 1929  
Modernized—1935-36  
Complement—814

### CA 7—MYOKO

Begun—October 1924  
Completed—July 1929  
Modernized—1935-36  
Complement—814

### CA 8—ASHIGARA

Begun—April 1925  
Completed—August 1929  
Modernized—1934-35  
Complement—814

#### Dimensions

Displacement: 11,500 tons (stand.).  
Length: 656' 0" (oa).  
Beam: 62' 4".  
Draft: 18' 0" (mean); 22' 6" (max.)

#### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
10	8"/50	3	42°	31,100	.....	254
*8	4.7"/50	89	85°	19,400	25,000	45

Director control for above batteries.

8 25 mm AA; 2 13 mm in twin mounts;

\*\*16 24" TT; 16 reloads;

2 catapults; 4 scout observation planes.

#### Protection

4" Belt (amidships); .." (ends);  
.. " Upper Belt; .. " Secondary Battery;  
5'-1 1/4" Decks; 1'-3/4" Bulkheads;  
2" Turret; .. " Barbette; 3/8" Shield.  
Splinter Protection: 3/16" to bridge.  
Watertight Integrity: Good (bulges).  
Damage Control: .....

#### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	33.0	.....	100,000	.....
Full:	35.8	.....	138,500	326
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	15.0	14,000	.....	.....
Drive: Turbines, geared; Screws: 4.				
Fuel: Oil; Capacity: 3,300 tons (max.).				

#### Notes

\*May be 45 caliber.

\*\*Original TT battery believed changed from 4 twin 21" TT mounts to 4 quadruple 24" TT mounts.

Fitted with mattress type, air search radar. One unit of this class is also equipped with ladder type air search radar antenna, Mark I Model III land-based, possibly designated Mark II, Model IV when shipborne.

#### Remarks

The NACHI Class, an enlarged AOBA design, established the maximum main battery standard for all known Japanese heavy cruisers that followed. The American PENSACOLA'S are the only occidental vessels of this type that equaled the NACHI in the number of 8" guns carried. Traditional adherence to the twin mount forced Japanese designers to concentrate the

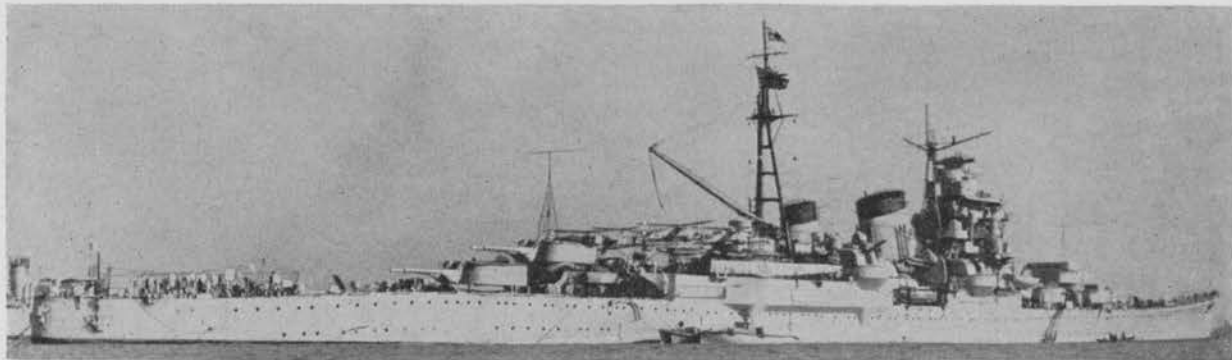


NACHI's superstructure amidships in order to accommodate five turrets along the center-line. The arrangement of the forward turrets was copied from a battleship designed by the British for Brazil prior to World War I. In turn, the NACHI's main battery plan was later repeated in the American BROOKLYN and ST. LOUIS Classes of light cruisers.

The enclosed bridge-foremast of the AOBA was developed to a full-fledged tower bridge in the NACHI Class, the flush-deck hull with its wavy sheer line being retained. The flare of the hull near the waterline amidships indicates an inclined water-line belt. Protection is

reported to include triple hulls and armor covering vitals some 410 feet long. During the 1934-36 modernization blisters were added, raising the displacement; the anti-aircraft armament was increased, torpedo tubes raised a deck and the superstructure remodeled. A pylon replaced the pole foremast at a later date. Several units of this class were reported to have developed signs of structural weakness around main battery mounts prior to this modernization.

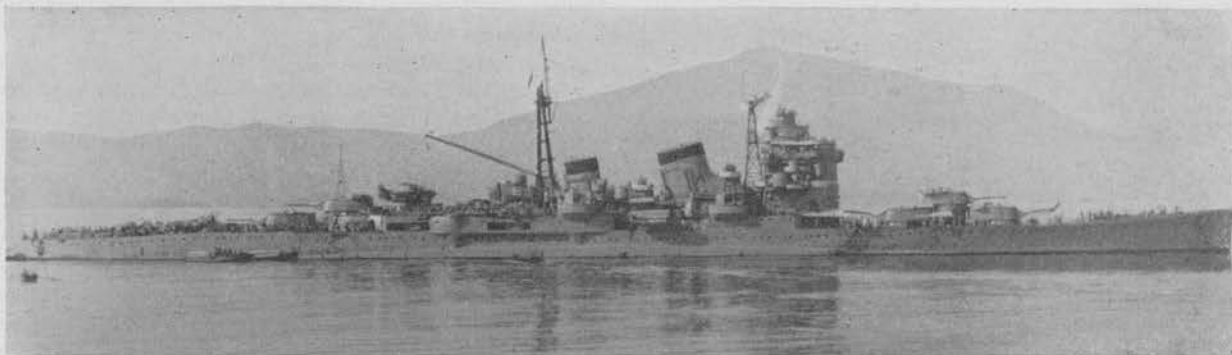
Despite their formidable paper characteristics, NACHI Class cruisers have not displayed any unusual capacity to resist battle damage.



ASHIGARA—December 1940.



NACHI—November 5, 1944.



ASHIGARA—May 28, 1941.





NACHI Class, Rabaul—November 2, 1943.

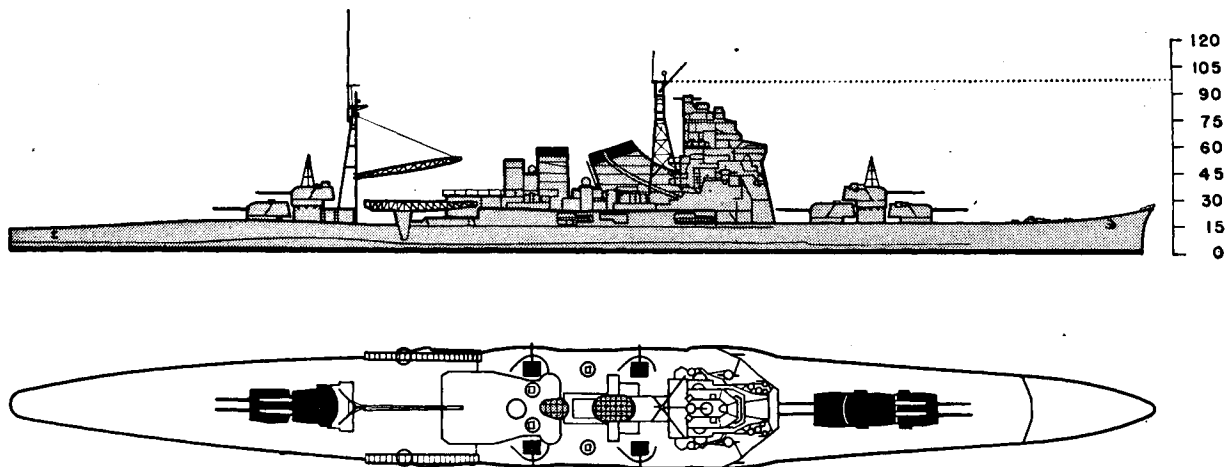


NACHI Class, PF MIKURA Class at left. Rabaul—November 2, 1943.



MYOKO—May 1, 1939.

## NOTES



## CA—Heavy Cruisers—ATAGO Class

### CA 10—TAKAO

*Begun—April 1927*  
*Completed—May 1932*  
*Complement—900*

#### Dimensions

Displacement: 12,500 tons (stand.).  
 Length: 657' 0" (oa).  
 Beam: 64' 0".  
 Draft: 18' 0" (mean); ... (max.).

#### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
10	8"/50	3	42°	31,100	.....	254
*4	4.7"/50	10	85°	19,400	25,000	45

Director control for above batteries.

8 25 mm AA;

\*\*16 24" TT; 16 reloads;

2 catapults; 4 scout observation planes.

#### Protection

4" Belt (amidships); ... (ends);

... Upper Belt; ... Secondary Battery;

5" Decks; ... Bulkheads;

2" Turret; 4" Barbette; 3/8" Shield.

Splinter Protection:.....

Watertight Integrity: Good.

Damage Control:.....

#### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	33.0	.....	100,000	.....
Full:	.....	.....	.....	.....
Max. Sust.:	.....	2,200	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	10.0	11,000	.....	.....
Drive: Turbines, geared; Screws: 4.				
Fuel: Oil; Capacity: 1,850 tons (max.).				

#### Notes

\*AA armament has probably been changed.

\*\*Original TT battery believed changed from 4 twin 21" TT mounts to 4 quadruple 24" TT mounts.

Fuel capacity and endurance may be higher. Reported fitted with 8 radar antennae as follows: one Mark II, Model I, air and surface search, surface fire control, and possible AA fire control; two Mark I, Model III, air search; three Mark II Model II, two-horn type used for surface search; and two mobile radar antennae on deck for training purposes.

#### Remarks

Ships of this class are reported to have been originally projected as units of the NACHI Class and subsequently modified during construction. Externally, these modifications include a larger bridge structure (the heaviest observed in Japanese cruisers), a wide pylon foremast, and a streamlined hull projection under the superstructure. In ATAGO and TAKAO the mainmast was re-stepped in a position abaft the catapults and just forward of No. 4 turret. Another innovation was placing the torpedo battery in the superstructure at main deck level, an arrangement generally followed in the MOGAMI's and TONE's, and adopted in the modernization of the NACHI Class.

Recent evidence indicates that the ATAGO Class was never modernized, nor fitted with blisters. This accounts for their lower estimated displacement compared with the NACHI Class, which had bulges added and displacement increased during the 1934-36 refit. Apparently this lack of extra buoyancy prevented an increase in the dual-purpose secondary battery as actually carried out in the NACHI Class. It is known that Japanese operating personnel recommended removal of No. 3 turret in order to gain additional antiaircraft fire power.

Protection is reported to include armor abreast vitals of some 410 feet in length, and triple bottoms to the hull. Fuel capacity and endurance may be higher than in the NACHI's.



ATAGO Class, CHOKAI-MAYA group (pre-war).



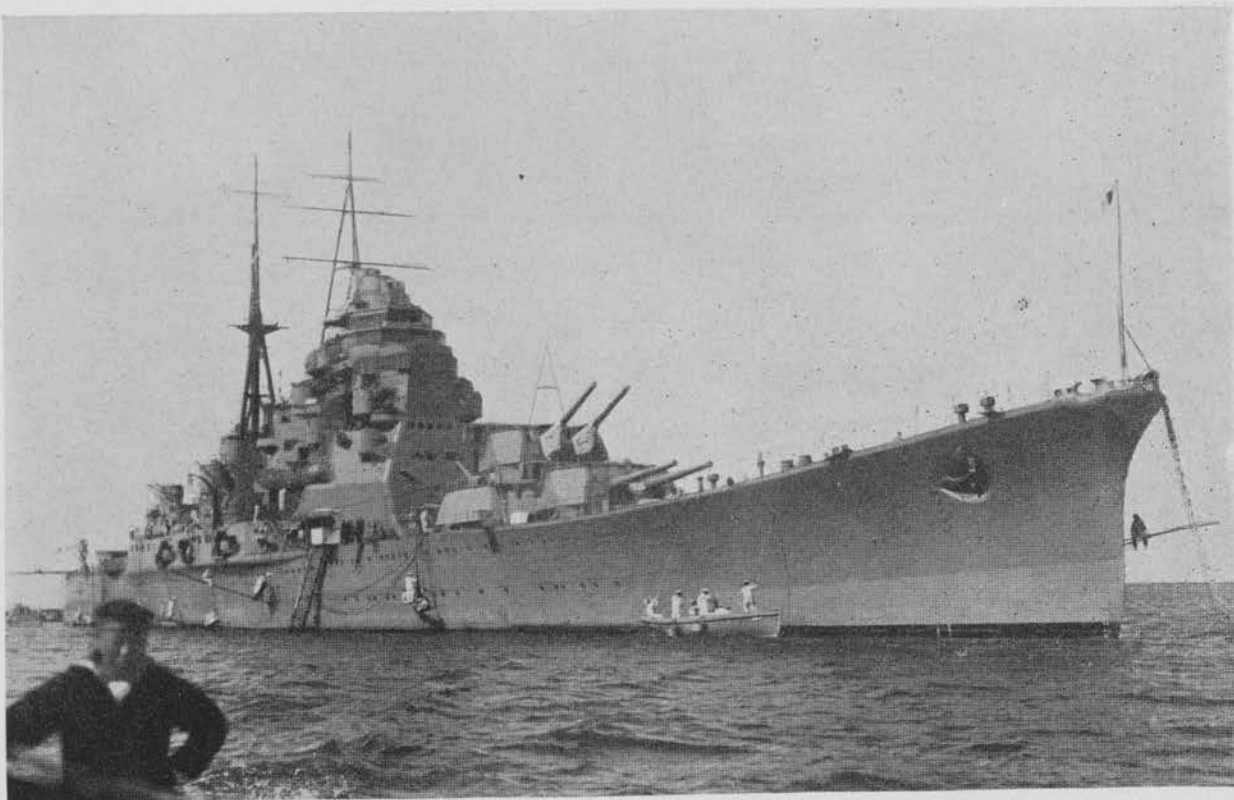
MAYA—December 19, 1938.



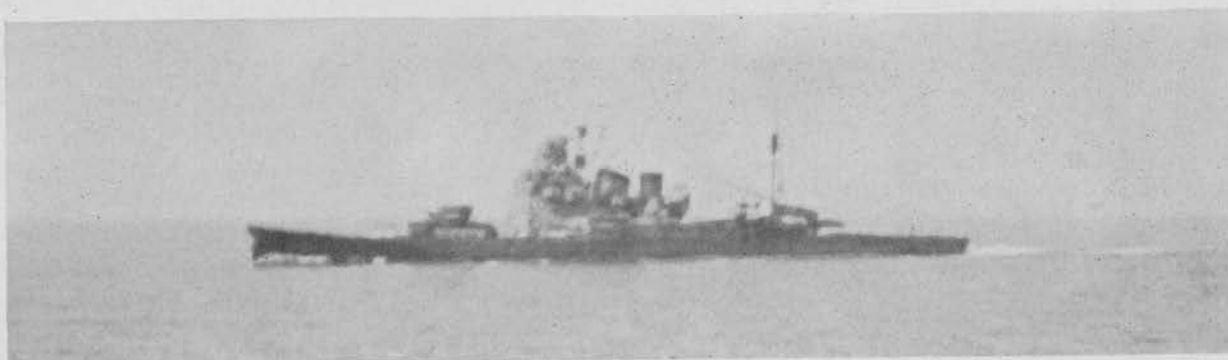
ATAGO Class, CHOKAI-MAYA group—  
February 4, 1943.



ATAGO—1934.

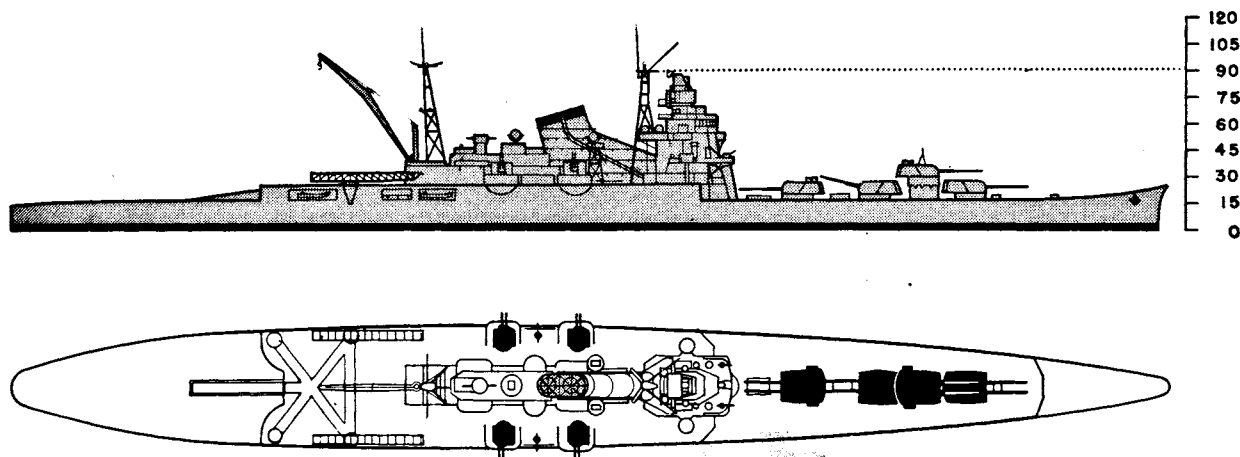


ATAGO, old rig (pre-war).



TAKAO—1941. Note mainmast stepped aft.

## NOTES



## CA—Heavy Cruisers—TONE Class

### CA 17—TONE

*Begun—December 1934*

*Completed—November 1938*

*Modernized—1937-38*

*Complement—880*

#### Dimensions

Displacement: 14,500 tons (stand.).

Length: 658' 0" (oa).

Beam: 65' 0".

Draft: 18' 0" (mean); ..' ..' (max.).

#### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
8	8"/50	3	42°	31, 100	.....	254
*8	4.7"/50	10	85°	19, 400	25, 000	45

Director control for above batteries.

\*\*16 24" TT; 16 reloads;

2 catapults; 6 scout observation planes.

#### Protection

2½" Belt (amidships); .." (ends);

..'' Upper Belt; ..'' Secondary Battery;

2" Decks; ..'' Bulkheads;

2" Turret; ..'' Barbette; ¾" Shield.

Splinter Protection:.....

Watertight Integrity: Good.

Damage Control:.....

#### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
***Designed:	33.0	.....	90, 000	.....
Full:	.....	.....	.....	.....
Max. Sust.:	.....	3, 300	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	10.0	16, 000	.....	.....
Drive: Turbines, geared; Screws: 4.				
Fuel: Oil; Capacity: 3,000 tons (max.).				

#### Notes

\*May be 45 caliber.

\*\*Original TT battery believed changed from 4 triple 24" TT mounts to 4 quadruple 24" TT mounts.

\*\*\*HP is probably higher.

#### Remarks

There is reason to believe that these cruisers were initially planned as MOGAMI Class units. In order to devote the entire after portion of the hull to aircraft launching, recovery, stowage, and servicing purposes, the main battery was concentrated forward on a proportionally longer forecastle. Lack of stern fire in a cruiser is a tactical liability, and appears to be a high price to pay for the modest increase in ship-borne aircraft. The same willingness to sacrifice main battery fire power and fields of fire for the sake of a few additional planes is reflected in the new light cruiser OYODO and in the wartime reconstruction of the ISE Class of battleships.

Protection is presumably the same or better than in the MOGAMI Class. The concentration of the main battery may have permitted the fitting of additional internal armor to the 8"-gun magazines. Blisters were fitted to at least one unit of this class.

Like the MOGAMI's, the TONE Class cruisers were given Japanese light cruiser names, and may therefore have undergone the same change in main battery caliber from 6.1" to 8" guns.



TONE Class—1941.



CHIKUMA—October 1944 with part of stern blown off.



TONE Class—October 24, 1944.

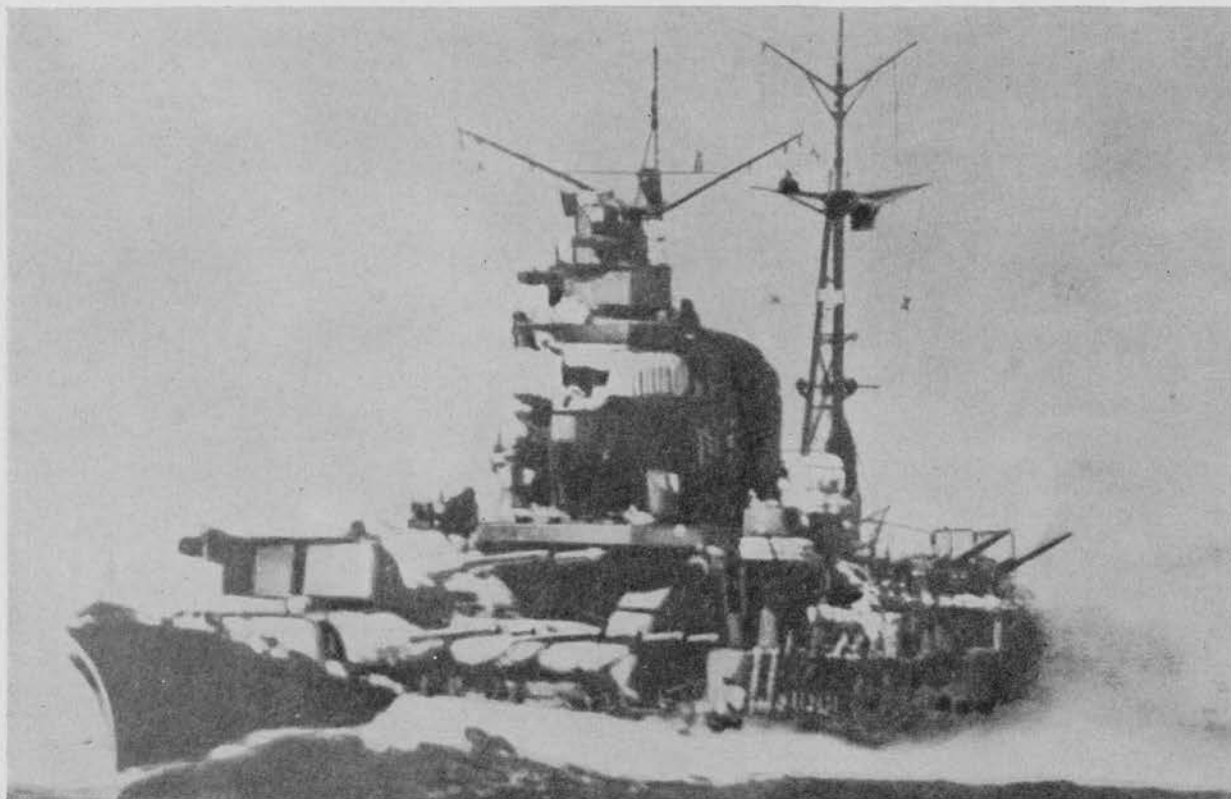


TONE Class—October 24, 1944.





TONE Class—October 26, 1942.



TONE Class



TONE, Kure—March 28, 1945.

# NOTES

# CA—Heavy Cruisers—IBUKI

## CA 19—IBUKI

Completed—1943  
Complement—874

### Dimensions

Displacement: ..... tons (stand.).  
Length: ..... (.....).  
Beam .....  
Draft: ..... (mean); ..... (max.).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Cell. (ft.)	Proj. (lbs.)
.....	8"/50	3	42°	31,100	.....	254
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....
.....	..... mm	.....	.....	.....	.....	.....
8 24" TT (twin mounts); ..... reloads.						
.. Mines .....; ..... Depth charges.						

### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	.....	.....	.....	.....
Full:	.....	.....	.....	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	.....	.....	.....
Drive: .....; Screws: .....	.....	.....	.....	.....
Fuel: .....; Capacity: ..... tons (max.).	.....	.....	.....	.....

### Notes

Uncertain whether a single ship or a unit of a class.

### Remarks

IBUKI is provisionally classified as a "heavy" or 8"-gun cruiser in view of reports that she is very similar to the MOGAMI. The complement of IBUKI is identical with that of the units in MOGAMI Class, as is the displacement. According to the Japanese warship naming system her name is one normally assigned to a powerful cruiser. Her namesake predecessor was the 14,620 ton, 12"-gun armored cruiser IBUKI, launched in 1907.

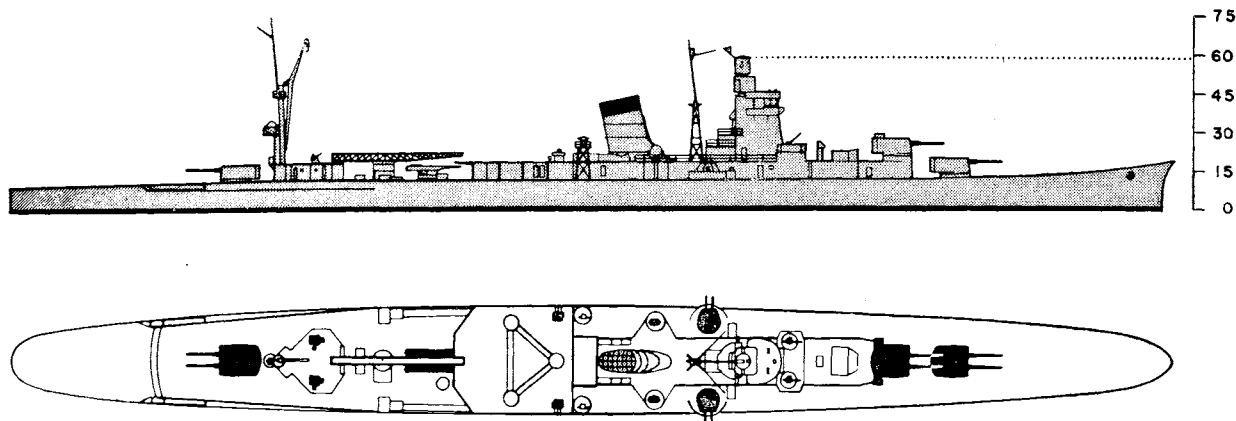
As ONI 222-J goes to press, a hitherto unreported light aircraft carrier has been tentatively identified as a conversion from IBUKI. The photograph of this carrier, taken at Sasebo on April 16, 1945, may be seen on page 14.

The carrier is 675 feet over-all, with a flight deck width of 83 feet. It resembles CVL RYUHO, having a single stack and bridge located below the level of the flight deck on the starboard side.



CA MOGAMI Class, MIKUMA (pre-war). IBUKI reported to be similar in size to MOGAMI Class.

## NOTES



## CL—Light Cruisers—AGANO Class

### CL 24—YAHAGI

Completed—1942-43

Complement—730

### CL 25—SAKAWA

Completed—1942-44

Complement—730

#### Dimensions

Displacement: 6,000 tons (stand.).

Length: 550' 0" (oa).

Beam: 49' 6".

Draft ...' ..." (mean); ...' ..." (max.).

#### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
6	6.1"/50	....	45°	29,200	.....	.....
*4	3.9"/	....	85°	.....	.....	.....

\*\*14 25 mm or 40 mm;

\*\*4 24" TT (quad mount); .. reloads;

Mines: (?)....; Depth Charges: Yes;

1 catapult; 2-3 scout observation planes.

#### Protection

...'' ...'' Belt (amidships); ...'' ...'' (ends);

...'' ...'' Upper Belt; ...'' Secondary Battery;

...'' ...'' Decks; ...'' ...'' Bulkheads;

...'' Turret; ...'' Barbette; ...'' Shield.

Watertight Integrity: .....

Damage Control: .....

Splinter Protection: .....

#### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	30+	.....	.....	.....
Full:	.....	.....	.....	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	.....	.....	.....
Drive: Turbines, geared; Screws: ....				
Fuel: Oil; Capacity: .... tons (max.).				

#### Notes

\*Carried in twin mounts.

\*\*Data on AA and TT are minimum figures.

Foremast fitted with ladder type, air search radar, Mark I, Model III, land-based, possibly designated as Mark II, Model IV ship-borne.

One unit sunk April 1945.

#### Remarks

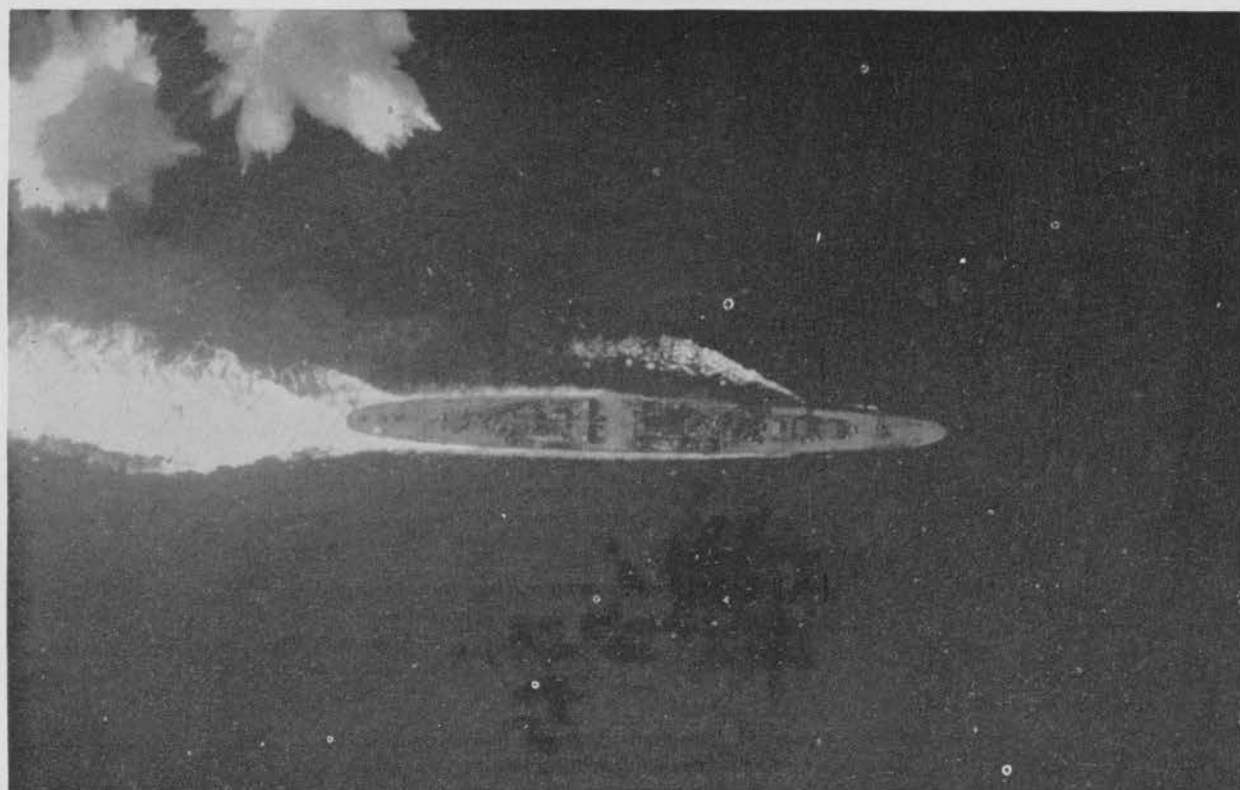
As the first regular light cruisers to be added to the Japanese Navy in over 10 years, units of the AGANO Class represent a considerable departure from their type predecessors. They appear to be more analogous to a lighter, 6"-gun version of the heavy cruiser AOBA, than a logical development of the YUBARI, which was the latest of Japan's older light cruiser designs.

The AGANO appears to be distinctly under-gunned for a modern small or medium sized light cruiser. A numerically stronger dual-purpose main battery of the caliber mounted in the American ATLANTA or British DIDO Classes would have made the AGANO a far more effective task force or escort unit. One plausible explanation of her main battery, as actually fitted, is that the original design may have provided for 8 6-inch guns in twin turrets fore and aft, and that the after high turret and barbette were suppressed during construction in favor of either a heavier torpedo battery, or aircraft accommodation, or both. These are trends observed in other Japanese cruisers.

Armor protection is probably similar to that of the AOBA; underwater protection may be considerably improved.



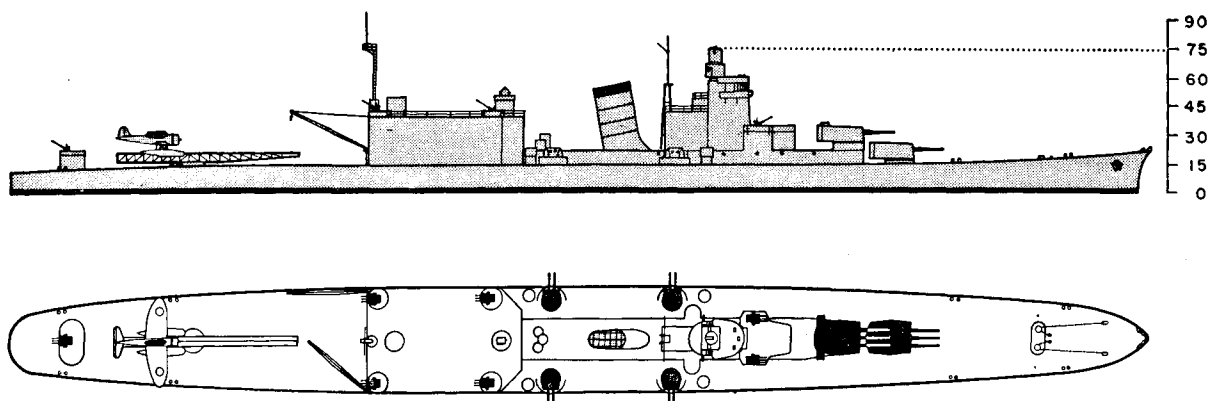
AGANO Class—January 1, 1944.



AGANO Class—November 11, 1943.



AGANO Class—November 5, 1943.



## CL—Light Cruisers—OYODO

### CL 22—OYODO

*Completed—1942-43*

*Complement—776*

#### Dimensions

Displacement: 10,000 tons (stand.).

Length: 615'-620' 0'' (oa).

Beam: 56' 0''.

#### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceiling (ft.)	Proj. (lbs.)
*6	6.1''/50	.....	45°	29, 200	.....	.....
**8	3.9''	.....	85°	.....	.....	.....

16 25 mm AA in 4 triple and 2 twin mounts;

1 catapult;

4 NORM II planes (Shiun "Purple Cloud"); Type 14 scout observation planes.

#### Propulsion

Speed: 37 knots (max.).

#### Notes

\*Carried in two triple mounts.

\*\*Carried in four twin mounts.

Reported fitted with search radar, possibly fire-control radar and radar search receiver.

Originally believed to be a unit of AGANO Class.

Data provisional.

#### Remarks

In essence, this ship appears to be a modified AGANO Class light cruiser. Following the TONE pattern, her main battery is concentrated forward and the after portion of the ship is devoted to ship-borne aircraft. The tactical handicap imposed by lack of stern fire is even more accentuated in vessels of this type than in 8''-gun cruisers or capital ships. The main battery disposition in triple turrets may indicate utilization of the triple 6.1''-gun mounts originally fitted in the MOGAMI Class. Protection is presumably similar to that of the AGANO's, although main battery magazine armor may be heavier.

OYODO mounts a center-line catapult aft, which is larger than the standard cruiser catapult. It is believed that the type plane carried necessitates the use of the larger catapult.



OYODO—October 25, 1944.



OYODO, Singapore—February 10, 1945.

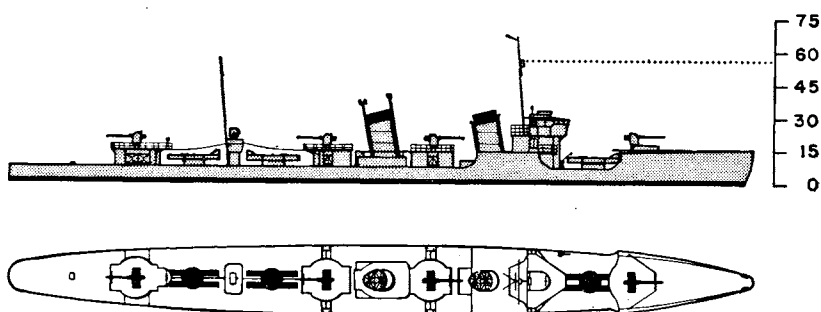


# DD—Destroyers

## MINEKAZE Class

*Class built between 1918 and 1922*  
*Complement: 154*

DD 4 SAWAKAZE  
 DD 8 YUKAZE  
 DD 10 SHIOKAZE  
 DD 12 NADAKAZE\*  
 DD 15 NOKAZE



### Dimensions

Displacement: 1,215 tons (stand.).  
 Length: 336' 6" (oa); 320' 0" (pp).  
 Beam: 29' 3".  
 Draft: 9' 6" (mean); ... (max.).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
4	4.7"/45	3	33°	16,500	.....	45

2 25 mm;  
 6 21" TT (twin mounts), 6 reloads; ..  
 Mines, fitted for; Depth Charges: ..

### Propulsion

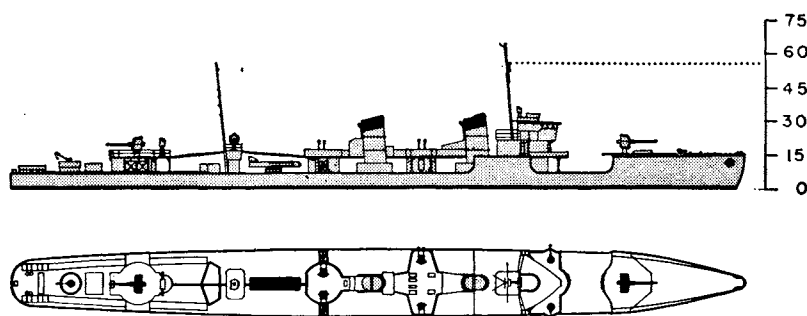
	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	34.0	750	38,500	.....
Full:	.....	.....	.....	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	3,600	.....	.....
Drive: Turbines, geared; Screws: 2.				
Fuel: Oil; Capacity: 400 tons (max.).				

### Notes

\*May have been reclassified as auxiliary.  
 It is believed most units have been converted for ocean escort duties.  
 Speed is now probably under 30 knots.  
 See statistics on refitted units of MINEKAZE Class.

## MINEKAZE Class Refit

*Class built between 1918 and 1922*  
*Complement—154*



### Dimensions

Displacement: 1,215 tons (stand.).  
 Length: 336' 6" (oa); 320' 0" (pp).  
 Beam: 29' 3".  
 Draft: 9' 6" (mean); ... (max.)

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
2	4.7"/45	3	33°	16,500	.....	45

3 25 mm AA (in single mounts) (?);  
 8 25 mm AA (in twin mounts);  
 2 21" TT (twin mount); ... reloads;  
 .. Mines, fitted for; Depth Charges: Yes.

### Propulsion

	*Speed (knots)	Endurance (miles)	HP	RPM
Designed:	.....	.....	.....	.....
Full:	.....	.....	.....	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	.....	.....	.....
Drive: Turbines, geared; Screws: 2.				
Fuel: Oil; Capacity: 400 tons (max.).				

### Notes

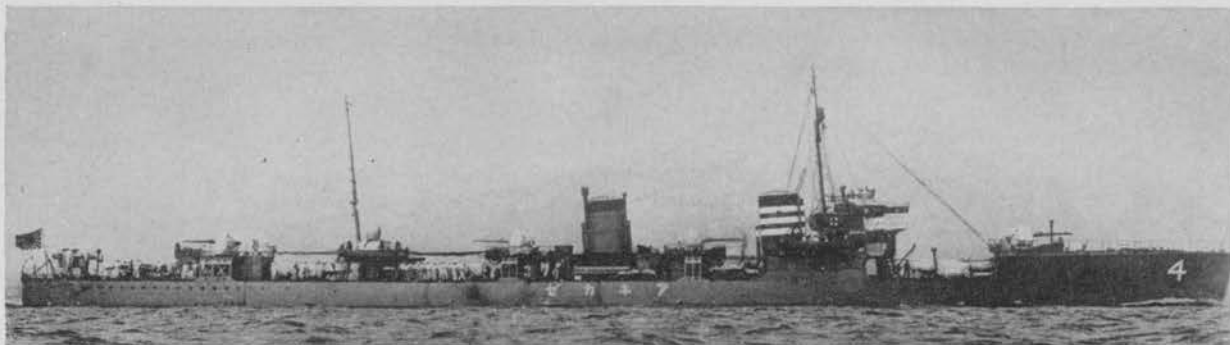
\*Probably under 30 knots.  
 One unit reported to have 3-4.7"/45 guns, 45° elevation, and two torpedo tubes (twin mount).  
 This unit observed after refit.  
 Compare with standard MINEKAZE Class design.

## Remarks

First of Japan's post World War I fleet flotilla units, the MINEKAZE Class represents the ultimate development of a series of 10 "first-class" fleet destroyers built from 1911 to 1918. German influence is evident in the forecastle well-deck and dispersed torpedo armament. As in the case of the NATORI Class cruisers, Japanese designers sacrificed end-on fire power by refusing to adopt the superfiring main battery disposition of contemporary British and French designs. On the other hand they succeeded in endowing these vessels with comparatively high freeboard and low silhouettes. The MINEKAZE's were originally fitted to carry 20 mines, without entailing reduction in

standard equipment. From all accounts these destroyers were very successful and met all requirements of their day.

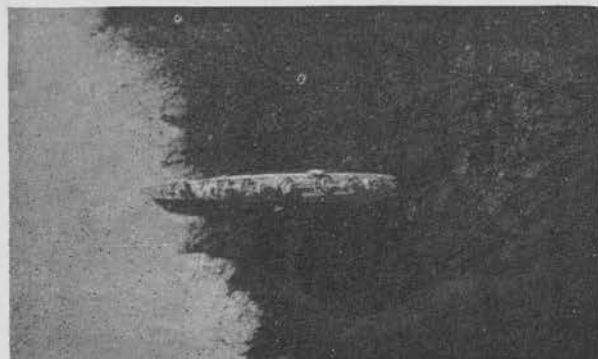
The demands of this war have forced the Japanese to divert most or all remaining MINEKAZE Class units to escort and other subsidiary duties. Conversion work observed to date involved a reduction in the original main battery and torpedo armament, an appreciable increase in close-defense antiaircraft guns, and the fitting of additional depth charge equipment. The speed of these vessels has probably been reduced considerably due to the age of boilers and machinery.



AKIKAZE—May 1931.



YUKAZE—1937.



MINEKAZE Class, Truk—February 17, 1944. Torpedo tubes removed, AA added.



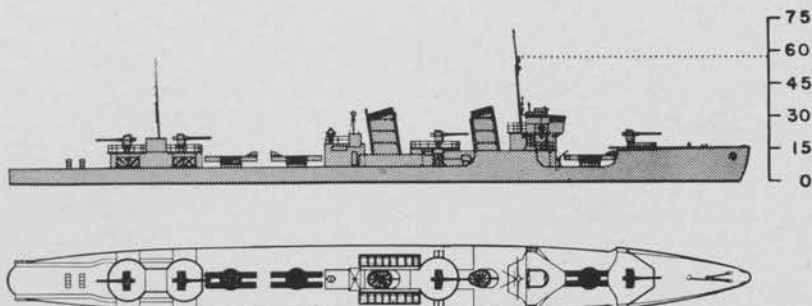
MINEKAZE Class, Truk—February 16, 1944. Torpedo tubes removed, AA added.

# DD—Destroyers

## KAMIKAZE Class

*Class built between 1921 and 1925.  
Complement—154.*

DD 16 KAMIKAZE  
DD 18 HARUKAZE  
DD 21 HATAKAZE



### Dimensions

Displacement: 1,270 tons (stand.).  
Length: 336' 6" (oa); 332' 0" (wl).  
Beam: 30' 0".  
Draft: 9' 7" (mean); ... (max.).

### Propulsion

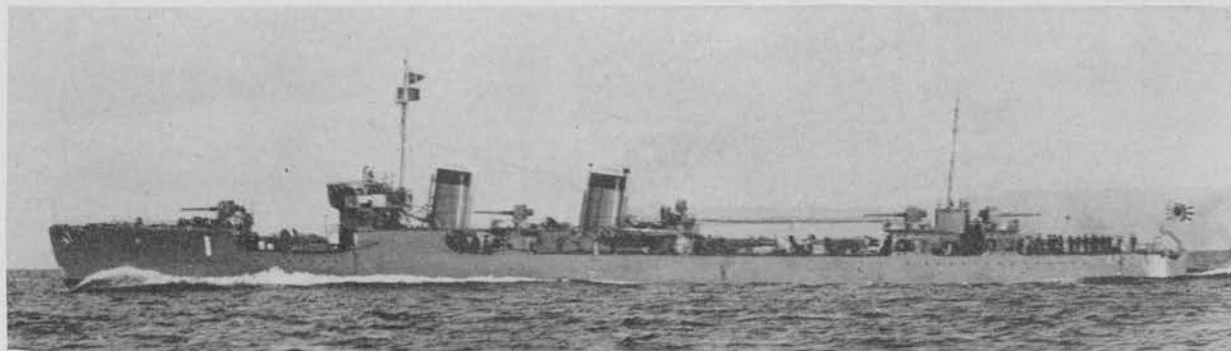
	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	34.0	.....	38,500	.....
Full:	.....	.....	.....	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	3,600	.....	.....
Drive: Turbines, geared; Screws: 2.				
Fuel: Oil; Capacity: 400 tons (max.).				

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Cell. (ft.)	Proj. (lbs.)
4	4.7"/50	.....	45°	17,900	.....	45
.....						
2 25 mm;						
6 24" TT (twin mounts); 6 reloads;						
.. Mines, fitted for; ... Depth Charges: Yes.						

### Remarks

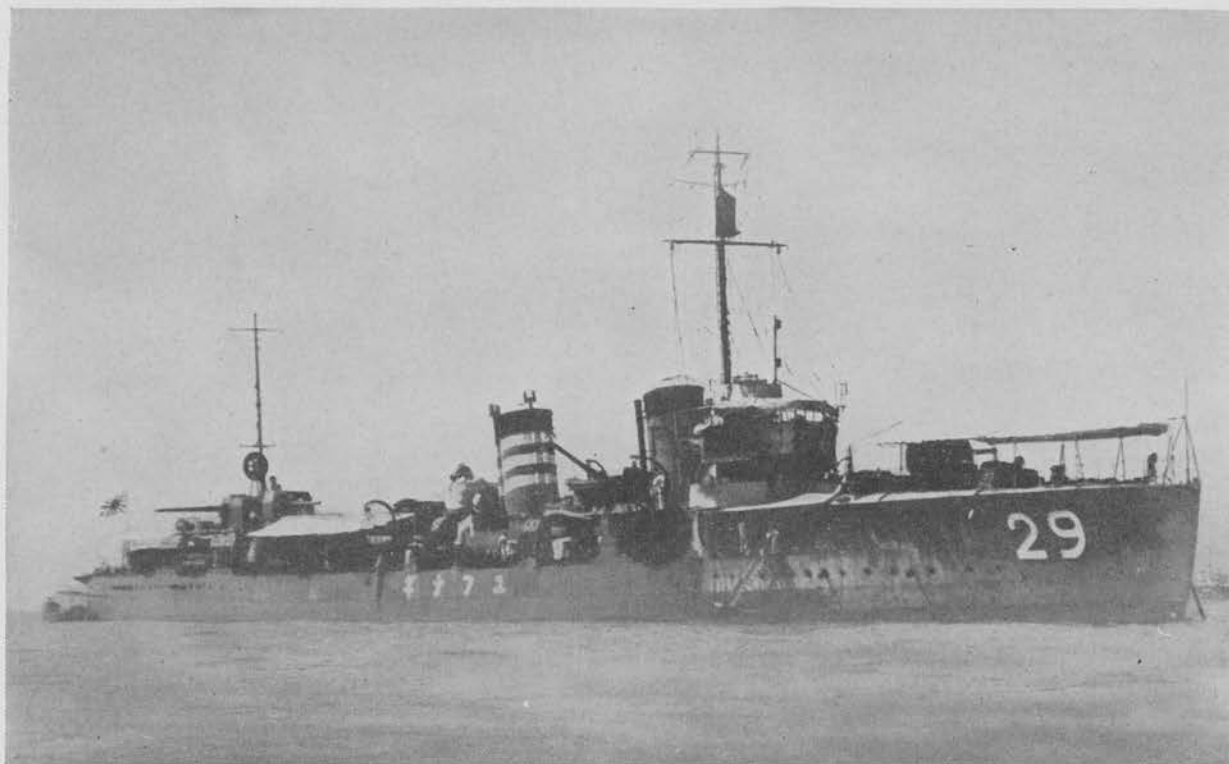
In design these units are practically "repeat MINE-KAZE's." As originally completed they differed from their predecessors in having No. 3 4.7" gun mounted on the after deck-house forward of the mainmast instead of abaft the after stack. These ships were originally designated by number and assigned names at a later date. Surviving units may have been altered along similar lines as the MINEKAZE Class.



KAMIKAZE Class, 1925.



KAMIKAZE Class, Truk—February 16, 1944.



KAMIKAZE Class (pre-war).

# DD—Destroyers

## FUBUKI Class

*Class built between 1926 and 1933*

*Complement—228*

### AMAGIRI GROUP

DD 52 USHIO

### HIBIKI GROUP

DD 56 HIBIKI

### Dimensions

Displacement: 1,800 tons (stand.).  
Length: 392' 0" (oa); 376' 6" (wl).  
Beam: 34' 8".  
Draft: 9' 9" (mean); 10' 8" (max.).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
6	5"/50	3	45°	21,000	.....	63

4 25 mm (reported);  
9 24" TT (triple mounts); 9 reloads;  
.. Mines, fitted for; 12 depth charges.

### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	34.0	.....	40,000	.....
Full:	.....	.....	.....	.....
Max. Sust.:	31.0	1,420	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	15.0	6,000	.....	.....

Drive: Turbines, geared; Screws: 2.  
Fuel: Oil; Capacity: 450 tons (max.).

### Notes

There are two design types in this class: Amagiri Group and Hibiki Group.

### AMAGIRI (REFIT)

One unit of Amagiri Group was photographed after refit in November 1943. The armament changes for this unit are listed below.

### Armament

No.	Cal.	Mk.	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
4	5"/50	3	45°	21,000	..	63

\*7 25 mm AAMG;  
2 13 mm AAMG (singles);  
9 24" TT (triple mounts).

\*In two twin mounts and one triple mount, (triple mount may be 40-mm).

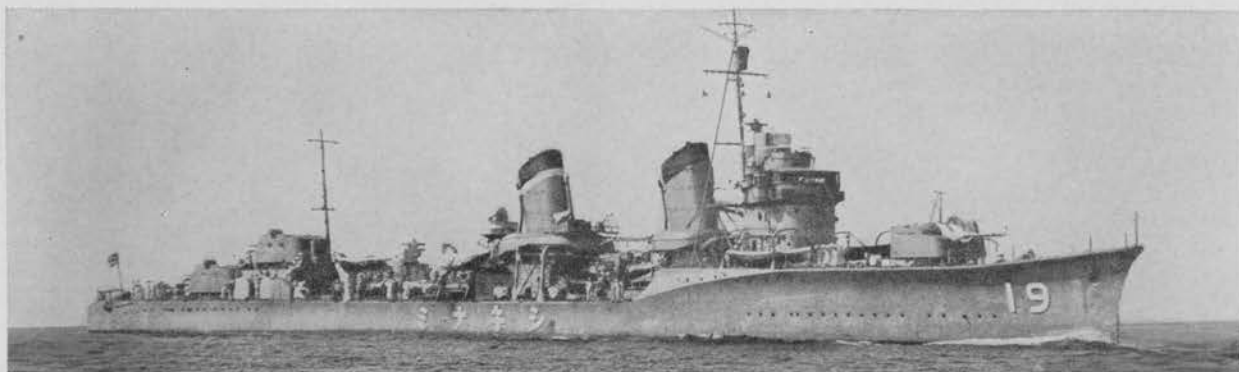
AMAGIRI REFIT

HIBIKI GROUP

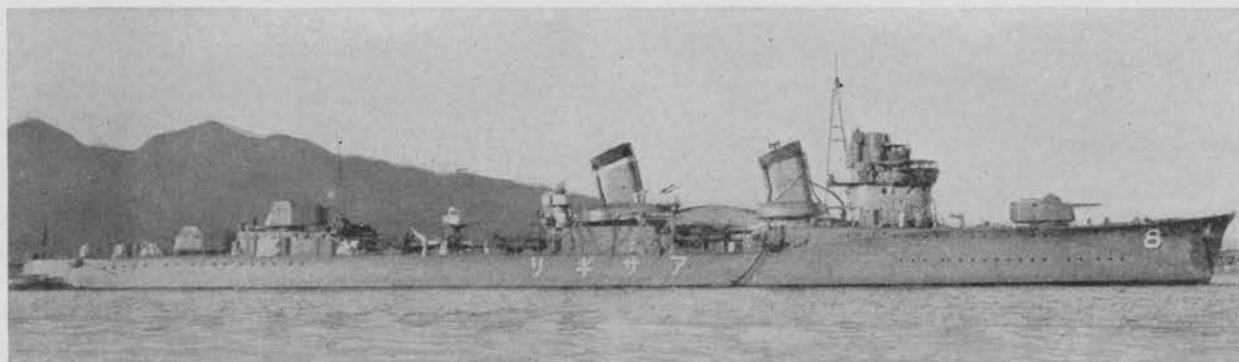
## Remarks

The FUBUKI Class marks a turning point in Japanese destroyer construction. First of the modern fleet destroyers, they actually led contemporary destroyer design the world over, introducing enclosed twin-gun mounts, shielded torpedo tube mounts, and high, all-steel bridges. Their influence has been reflected in Italian, British, French, and American destroyers designed and built since their completion. The 5" gun, heaviest yet mounted in Japanese torpedo craft, was introduced and the long forecastle revived. All but one of subsequent Japanese destroyer classes have been derivatives of this design.

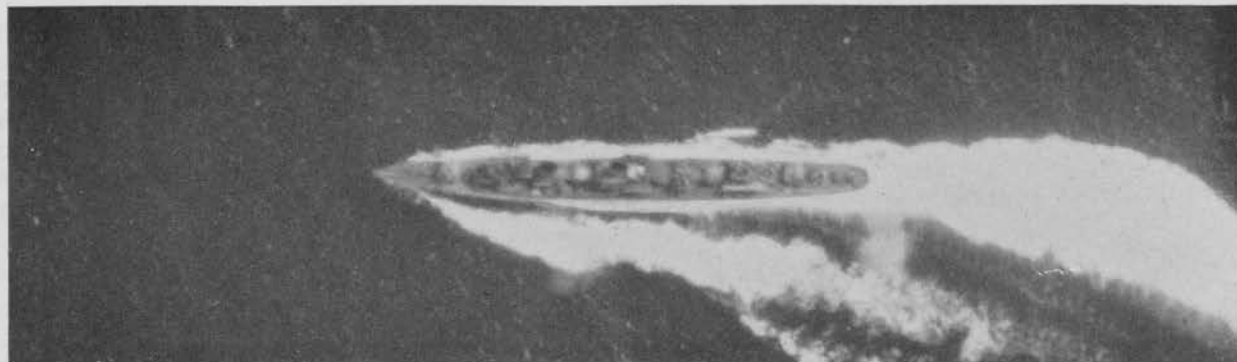
Although all FUBUKI'S were built to the same basic design and were originally fitted with the same armament, they differed in appearance. These appearance groups were: the SHINONOME, AMAGIRI, and HIBIKI Groups, in order of their completion. Certain units, particularly those in the AMAGIRI Group, have had No. 2 5-inch gun mount replaced by additional close-defense AA weapons. This change may have been carried out in other vessels due to the increasing air threat. Guns, tubes, and bridges may be fitted with light splinter-proof protective plating.



SHIKINAMI, FUBUKI Class, AMAGIRI Group (pre-war).



ASAGIRI, FUBUKI Class, AMAGIRI Group—1934.

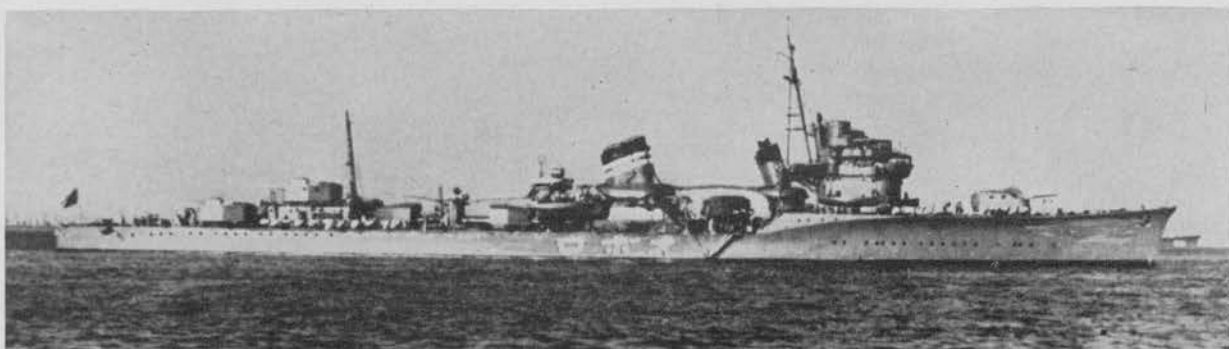


Refitted unit, FUBUKI Class, AMAGIRI Group—November 18, 1943.

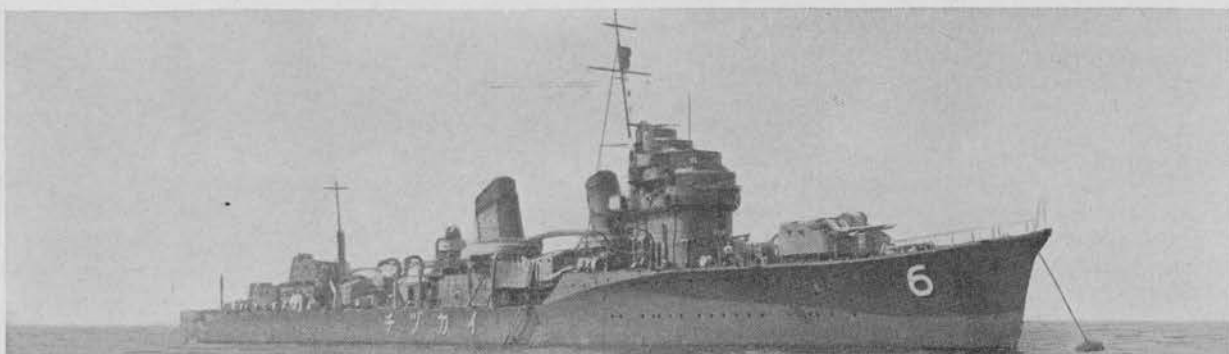




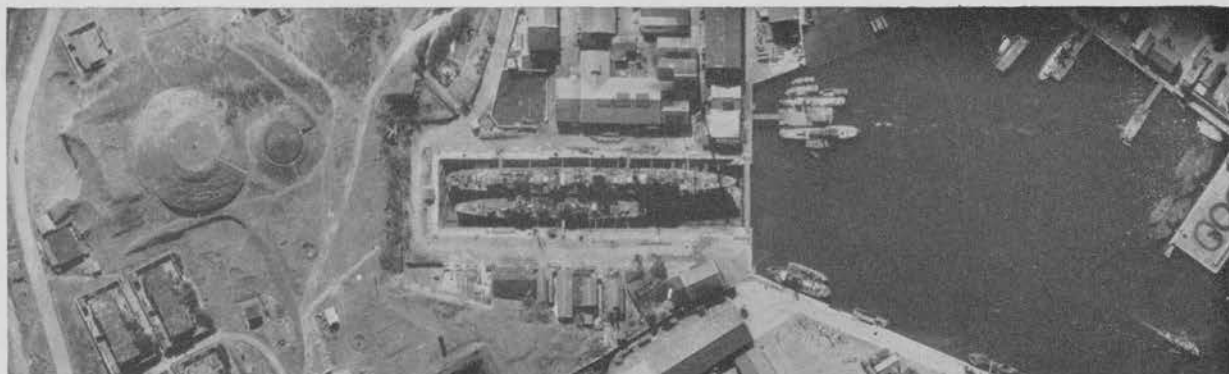
Refitted unit, FUBUKI Class, AMAGIRI Group—November 5, 1944.



FUBUKI Class, HIBIKI Group—1938.



IKAZUCHI, FUBUKI Class, HIBIKI Group—1938.



FUBUKI Class, HIBIKI Group with DE-UN-1, Pescadores—October 12, 1944. (No. 2 turret replaced by AA).

## NOTES



# DD—Destroyers

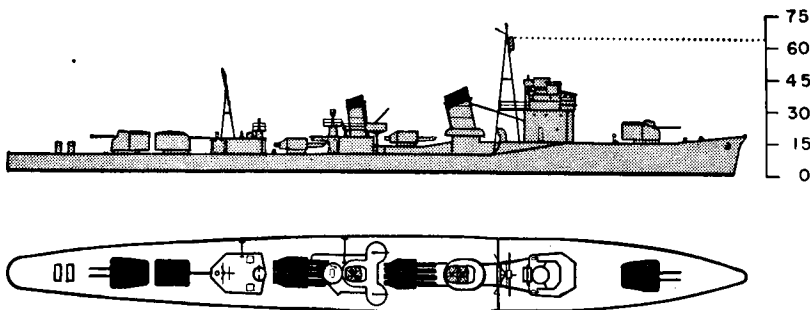
## HATSUHARU-SHIGURE

### Class

Class built between 1931 and 1937

Complement—213

DD 60 HATSUHARU  
DD 61 HATSUSHIMO  
DD 66 SHIGURE



### Dimensions

Displacement: 1,400 tons (stand.).  
Length: 344' 0" (oa); 337' 10" (wl).  
Beam: 32' 7".  
Draft: 8' 9" (mean); ..... (max.).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
5	5"/50	3	45°	21,000	.....	63

2 25 mm (subject to increase);  
8 24" TT (quad mounts); 8 reloads;  
.. Mines, fitted for; Depth Charges: Yes.

### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	34.0	.....	37,000	390
Full:	.....	1,000	.....	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	6,000	.....	.....

Drive: Turbines, geared; Screws: 2.  
Fuel: Oil; Capacity: 500 tons (max.).

### Notes

#### SHIGURE Unit:

Length: 341' 3" (oa); 335' 5" (wl).  
Beam: 31' 9"; Draft: 9' 1" (mean).  
One unit of SHIGURE Class reported to have been refitted:  
Armament: 11 25 mm AAMG disposed as follows:  
The single 5"/50 aft replaced by 1 triple 25 mm AAMG;

1 triple 25 mm AAMG on each side of bridge at main deck level; 1 twin 25 mm AAMG forward of bridge; 12 type 95 depth charges carried in racks aft. Maximum capacity—200 depth charges.

Propulsion: Endurance 5,000–6,000 miles at an economical speed of 15 knots.

### Remarks

#### HATSUHARU Units:

When the HATSUHARU Class was first commissioned, the five 5" guns were disposed in a twin mount and a super-firing single mount forward, with a twin mount aft. The bridge was very large. As the result of the capsizing of the torpedo-boat TOMOZURU in March 1934 and the behavior of these ships at sea, they were taken in hand for considerable alterations. Top weights were reduced by substituting a smaller bridge, remounting the single gun mount aft at main deck level just forward of the after twin mount, and reducing the torpedo armament to two triple mounts. The torpedo battery is reported to have been increased to eight 24" tubes in quadruple mounts.

The original 5" battery plan of this class is interesting inasmuch as it represented the first use of superfiring mounts forward in Japanese destroyer design. Another reported innovation was the extensive use of welding in their structure. ARIAKE of this class was fitted with twin rudders and is said to have reached 40 knots on trials.

#### SHIGURE Units:

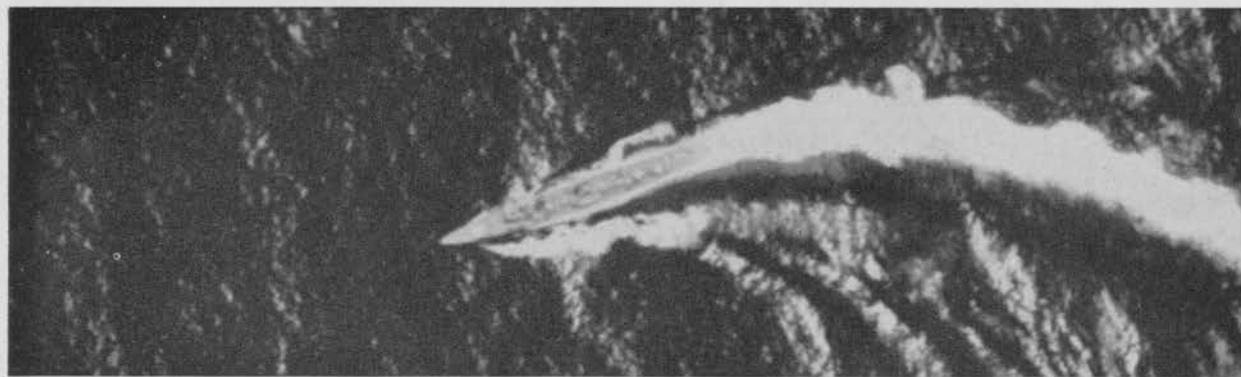
These vessels were practically "Repeat HATSUHARU's," and differed only in minor details. According to published pre-war reports, SHIGURE Units were among the first Japanese destroyers to be armed from the start with the new type 24" torpedo tubes, arranged in triple mounts.



SHIGURE—July 1939.



SHIGURE—July 1939.



HATSUHARU—SHIGURE Class—September 3, 1942.



HATSUSHIMO—August 1937.

# DD—Destroyers

## ASASHIO-KAGERO Class

*Class built between 1935 and 1938*  
*Complement—228*

DD 84 KASUMI  
 DD 87 SHIRANUHI  
 DD 92 YUKIKAZE  
 DD 95 AMATSUKAZE  
 DD 101 HAMAKAZE

### Dimensions

Displacement: 1,650 tons (stand.).  
 Length: 361' 6" (oa); 356' 2" (wl).  
 Beam: 33' 4".  
 Draft: 9' 0" (mean); ' ' ' (max.).

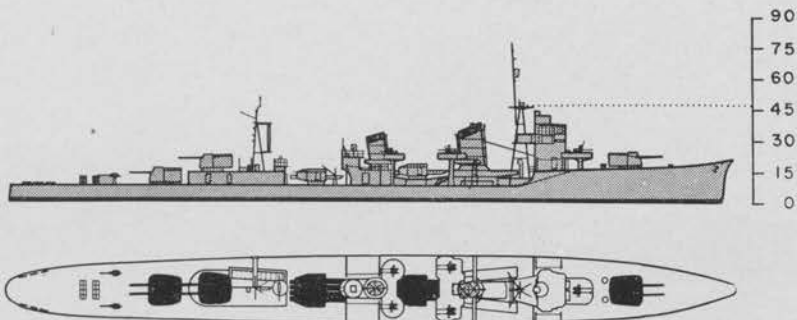
### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
6	5"/50	3	60°	21,000	.....	63

\*10 25 mm;  
 8 24" TT (quad mounts); 8 reloads;  
 Mines, fitted for; Depth Charges: 18; 4 DC release gears.

### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	34.0	.....	38,000	.....
Full:	35.8	960	54,800	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	15.0	5,700	.....	.....
Drive: Turbines, geared; Screws: 2				
Fuel: Oil; Capacity: 500 tons (max.)				



### Notes

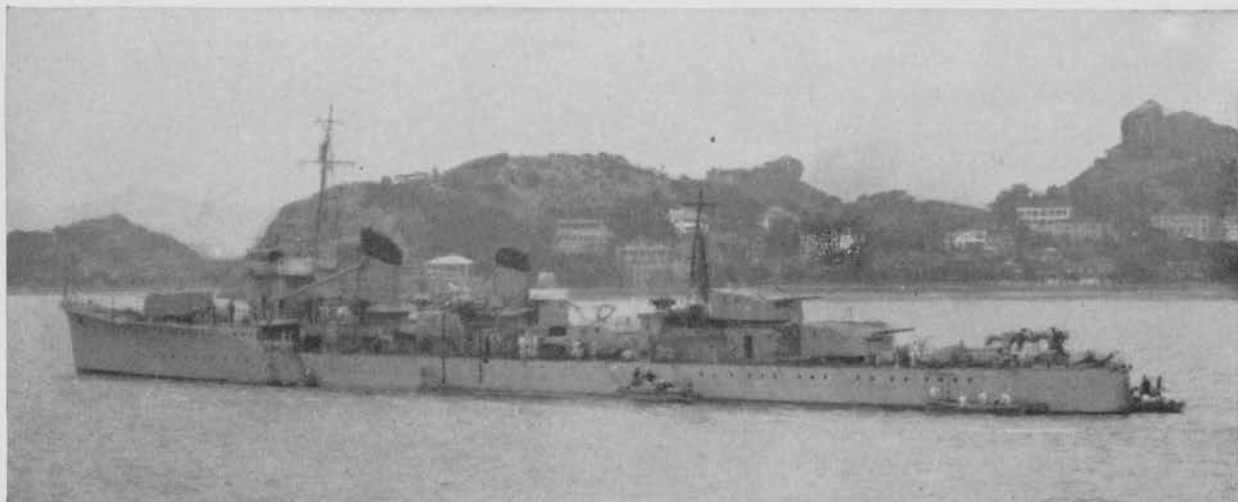
\*Minimum AA armament indicated on drawing. Fitted with ladder type air search radar, Mark I, Model III, land-based, possibly designated as Mark II, Model IV, ship-borne.

### Remarks

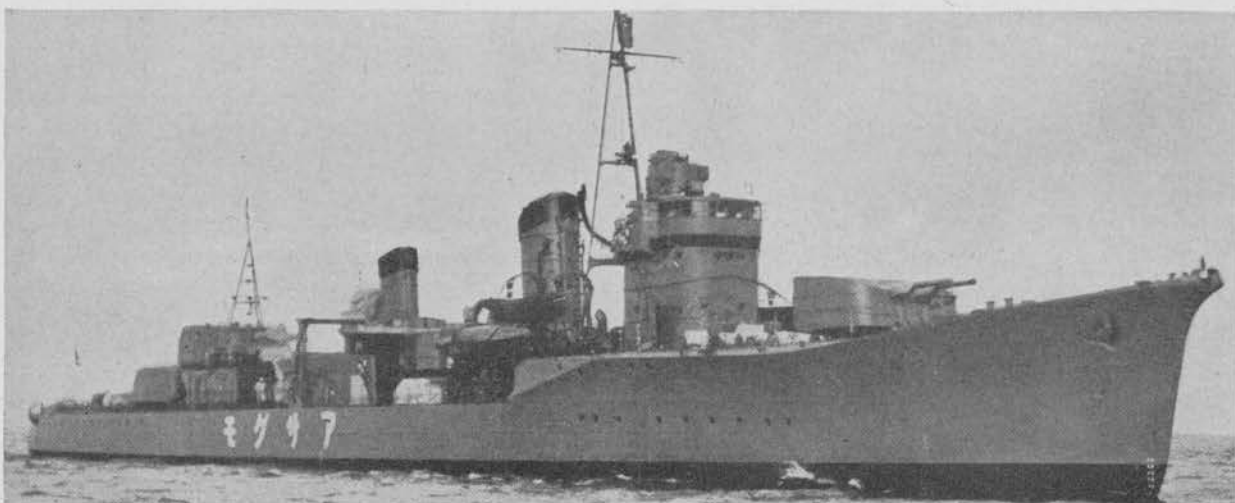
Practically alike, ASASHIO and KAGERO units represent a return to larger displacements and dimensions in Japanese pre-war destroyer construction. Their military characteristics are almost identical with those of the FUBUKI's, with 24" torpedo tubes in quadruple mounts substituted for the triple mounts in the older units. In appearance they resemble the HATSU HARU-SHIGURE Class, except for their FUBUKI type 5"-gun battery disposition. The high enclosed mount aft is subject to removal and replacement by light AA weapons.



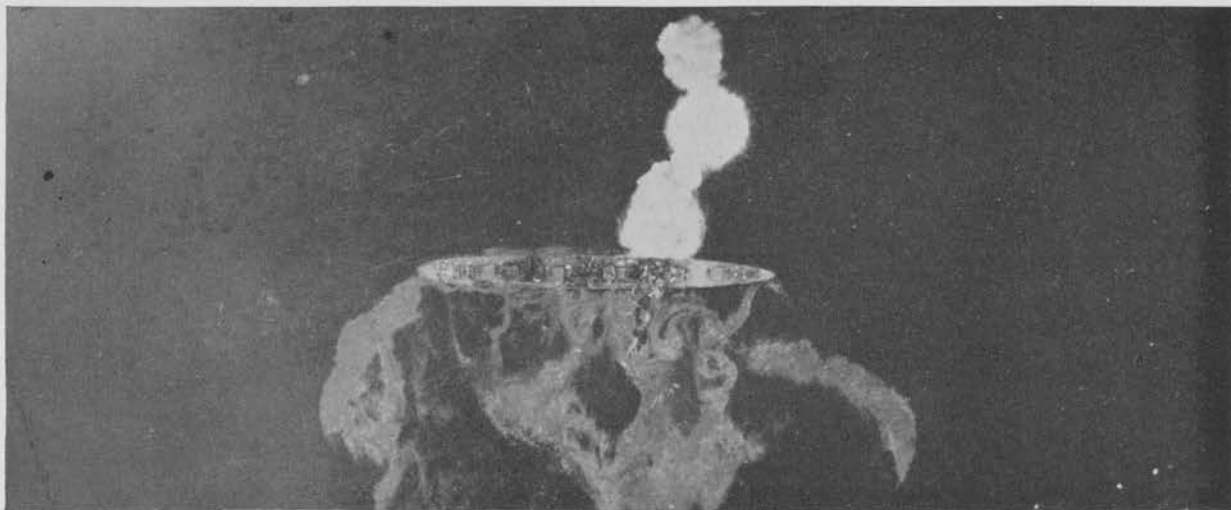
ISOKAZE—March 15, 1941.



ASASHIO—KAGERO Class—1938.



ASAGUMO—November 1938.



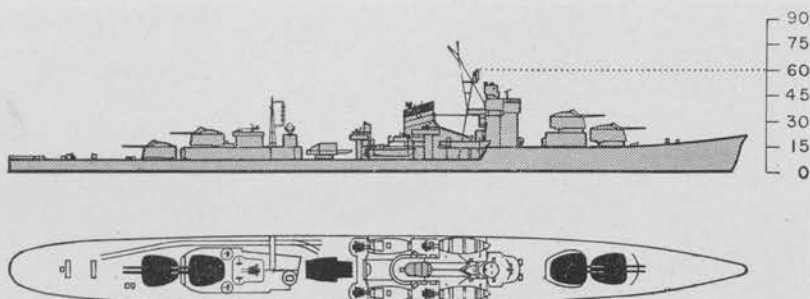
ASASHIO—KAGERO Class, Bismarck Sea—March 4, 1943.

# DD—Destroyers

## TERUTSUKI Class

Class built between 1941 and  
19—  
Complement—290

DD HARUTSUKI  
DD YOITSUKI  
DD NATSUZUKI  
DD HANAZUKI



### Dimensions

Displacement: 2,300 tons (stand.).  
Length: 435' 0" (oa).  
Beam: 38' 0".  
Draft: ...' ..." (mean); ...' ..." (max.).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
8	4"/65	.....	85°	*17,400	42,500	30

\*\*10 25 mm in twin mounts;  
4 24" TT (quad mount); 4 reloads;  
... Mines, fitted for; 2 twin depth charge throwers; Depth  
charges: Yes.

### Propulsion

	Speed (knots.)	Endurance (miles)	HP	RPM
Designed:	40.0	.....	.....	.....
Full:	.....	.....	.....	.....
Max. Sust:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	.....	.....	.....
Drive: Turbines, geared; Screws.....				
Fuel: Oil; Capacity..... tons (max.).				

### Notes

\*It is reported that maximum surface range may be  
20,000 yards.  
\*\*Additional AA may be carried. Mainmast fitted with  
ladder type radar antenna, Mark I, Model III, land-

based, possibly designated Mark II, Model IV when  
ship-borne.

Mattress type, early warning search radar located on  
foremast.

### Remarks

In the TERUTSUKI Class the Japanese apparently  
attempted to evolve a cheaper substitute for the small  
fleet cruiser, fitted with the same type of armament as the  
American ATLANTA-OAKLAND and British DIDO  
Classes of dual-purpose battery cruisers. In main battery  
plan the TERUTSUKI resembles the French MOGADOR,  
British "Tribal" and American PORTER and SOMERS  
(original rig) Classes of large destroyers. She has been  
referred to as a "Japanese Tribal" because of her weak  
torpedo armament. Her superstructure arrangement  
probably permits greater safe angles of train of the main  
battery than found in her occidental prototypes. TERUT-  
SUKI's closest design antecedent in the Japanese Navy  
appears to be the small, unusual cruiser YUBARI, com-  
missioned over 20 years ago.

A new type dual-purpose gun and twin mount was  
introduced in the TERUTSUKI; the gun itself is ap-  
parently a high-velocity model and may have been in-  
tended to outrange the gun armament currently mounted  
in American destroyers and antiaircraft cruisers.



TERUTSUKI Class.





TERUTSUKI Class—November 11, 1944.



TERUTSUKI Class—September 29, 1942.



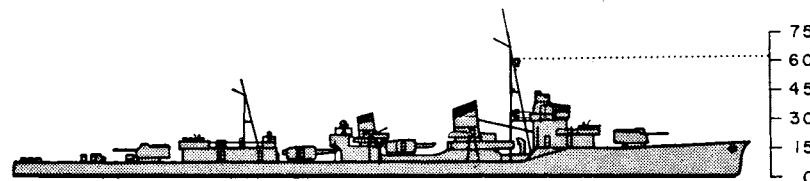
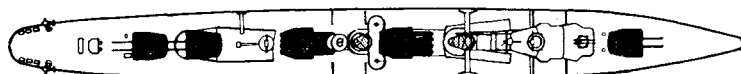
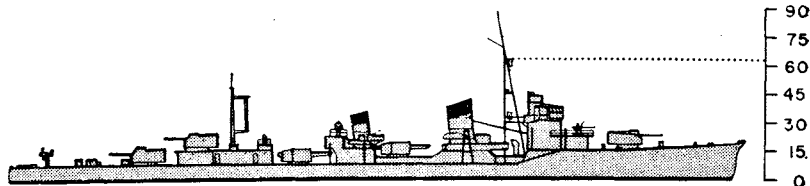
TERUTSUKI Class—November 11, 1944.

# DD—Destroyers

## TAKANAMI Class

Class built between 1941 and  
1944  
Complement—228

DD 121 FUJINAMI  
DD 127 KISHINAMI  
DD 128 SHIRANAMI  
DD ASASHIMO



SHIMO GROUP

### Dimensions

Displacement: 2,000 tons (stand.).  
Length: 382' 0" (oa); ...'  
Beam: 34' 0".  
Draft: ...' (mean); ...' (max.).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
*6	4.7"/	....	85°	20,000	.....	.....

\*\*4 25 mm;  
8 24" TT (quad mounts); ..... reloads;  
.. Mines, fitted for; Depth Charges: Yes.

### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	36.0	.....	45,000	.....
Full:	.....	.....	.....	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	.....	.....	.....
Drive: Turbines, geared; Screws: 2.				
Fuel: Oil; Capacity: ..... tons (max.).				

### Notes

\*Photographic evidence confirms main battery as dual purpose. Caliber of gun is speculative.  
\*\*Light AA subject to increase.  
The No. 2 shield mount on ASASHIMO has been replaced by triple mount 25 mm AAMG. Another triple mount 25 mm AAMG is reported forward of bridge. The location of other 25 mm and 13 mm guns on these units is unknown. See drawing of "Shimo Group." Fitted with ladder type radar antenna, Mark I, Model III, land-based, possibly designated Mark II, Model IV when ship-borne.

### Remarks

Slightly enlarged ASASHIO's, the TAKANAMI Class adheres to the basic design pattern set by the FUBUKI Class. Her principal reported innovation is the substitution of a new 4.7" gun in twin enclosed dual-purpose mounts for the 5" surface guns of her predecessors. Light flak weapons are apparently mounted to better advantage, the best instance being the fitting of a center-line 25 mm gun platform just forward of the bridge to cover sectors from ahead.

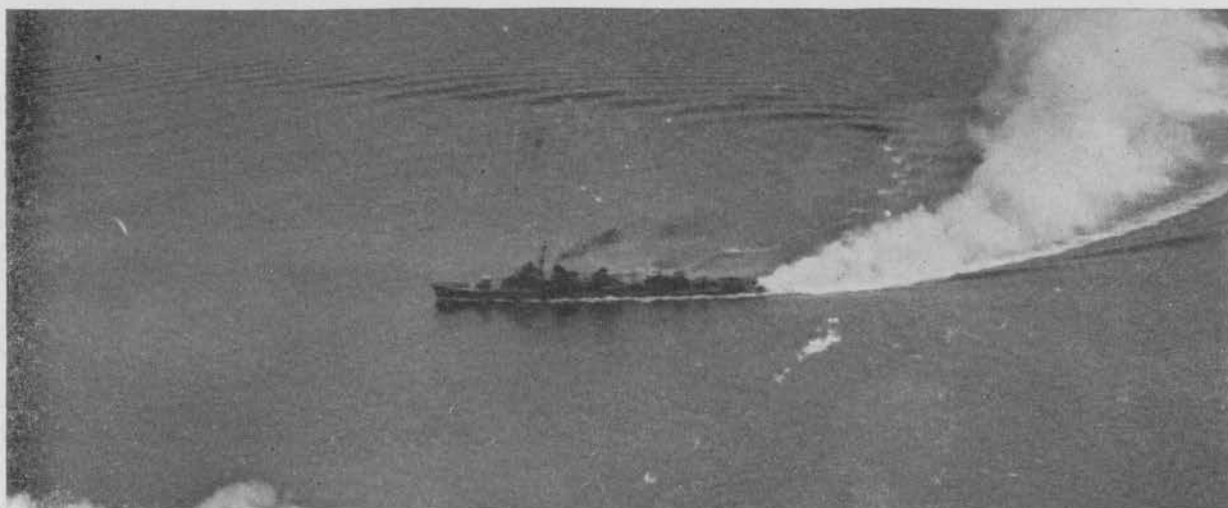
In the "Shimo" Group of the TAKANAMI Class the Japanese replaced the high 4.7" gun mount aft with a triple 25 mm AA mount, following the pattern in rearming of the older 5"-gun ships. This seems to indicate that the close-defense batteries are still considered inadequate to counter the aerial threat.



TAKANAMI Class—November 1944.



TAKANAMI Class—November 4, 1943.



TAKANAMI Class—November 11, 1944.



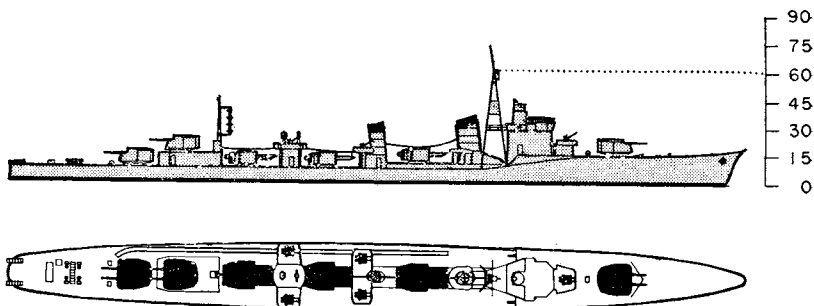
# DD—Destroyers

## SHIMAKAZE Class

*Class built between 1941 and 19..*

*Complement—282*

DD 129—SHIMAKAZE



### Dimensions

Displacement: 2,100 tons (stand.).  
Length: 410'0" (oa).  
Beam: 36' 0".  
Draft: ..' .." (mean); ..' .." (max.).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
*6	4.7"/45	10	85°	18,000	35,000	42.7

\*\*10 25 mm (twin mounts);

\*\*\*15 24 " TT (quint. mounts) .. reloads.

.. Mines, fitted for: Depth Charges: Yes.

### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:				
Full:	37.0			
Max. Sust.:				
Cruising:				
Economical:				
Drive:	....; Screws: ....;			
Fuel: Oil; Capacity:	.... tons (max.).			

### Notes

\*Caliber and range are speculative.

\*\*Four AA gun mounts amidships may be triples.

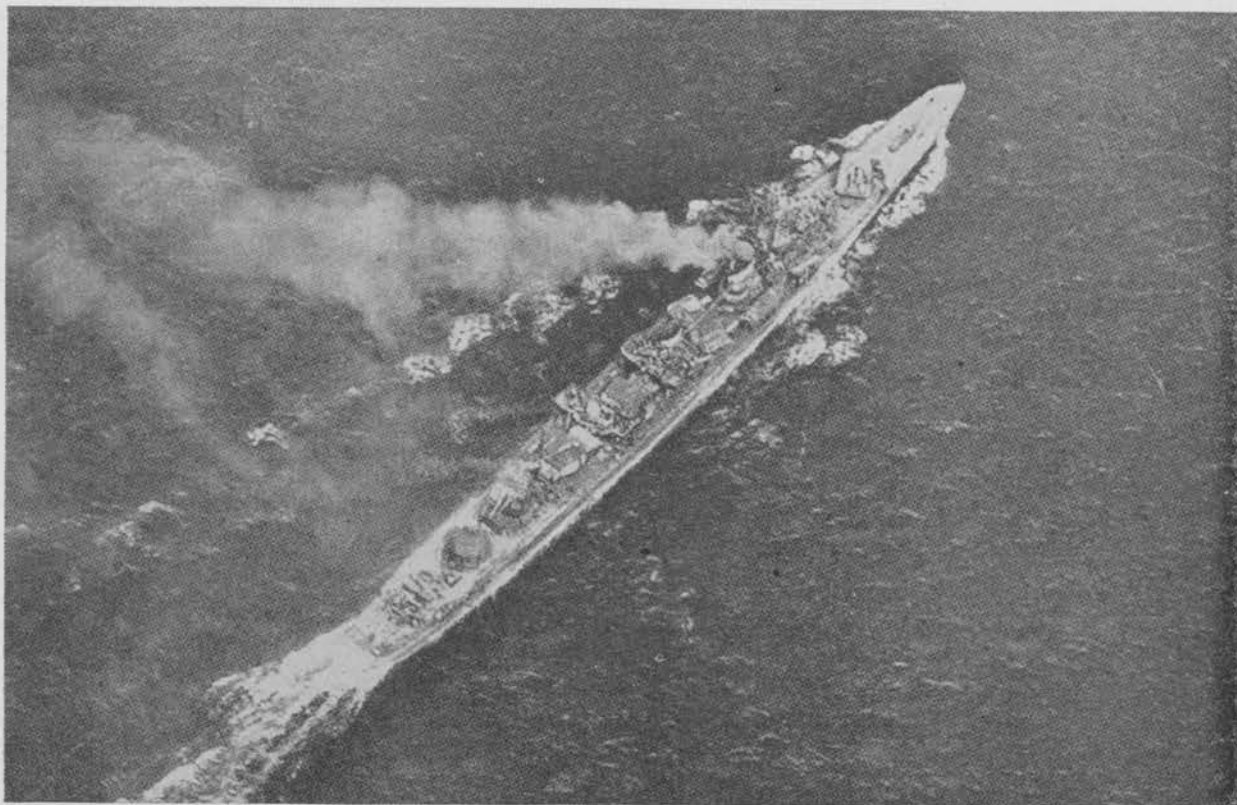
\*\*\*First instance of Japanese use of quintuple tube mount.

Fitted with ladder type air search radar, Mark I, Model III land-based, possibly designated as Mark II, Model IV shipborne.

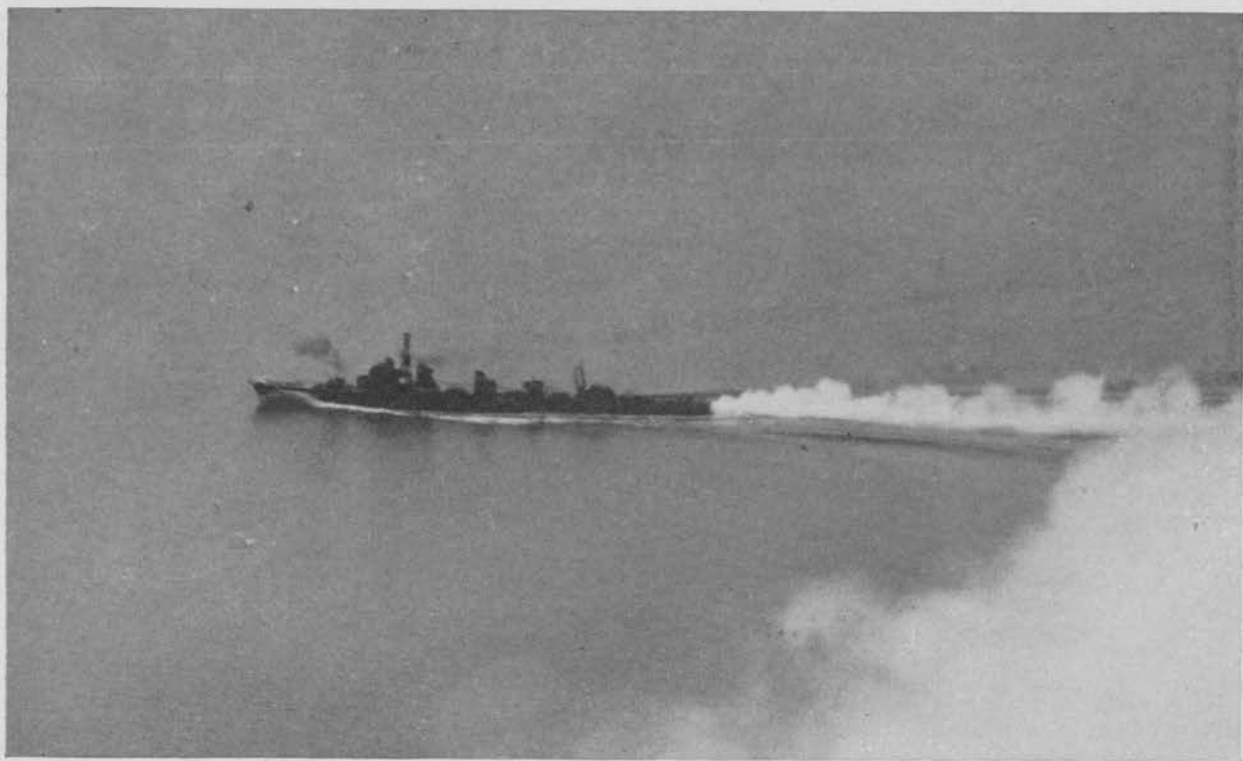
All data provisional.

### Remarks

The SHIMAKAZE Class seems to represent the culmination of the progressive development of the original FUBUKI destroyer design. Though she approaches the TERUTSUKI in displacement and dimensions, the SHIMAKAZE is still first and last a fleet destroyer, as evidenced by her unusually heavy torpedo armament. Her automatic light AA battery appears to be the heaviest yet mounted in Japanese destroyers; a further increase in this battery might conceivably be made at the expense of one of the torpedo tube nests rather than the after 4.7-inch gun high mount. She appears to mount the same type 4.7 inch gun house as the TAKANAMI Class.



SHIMAKAZE—November 11, 1944.

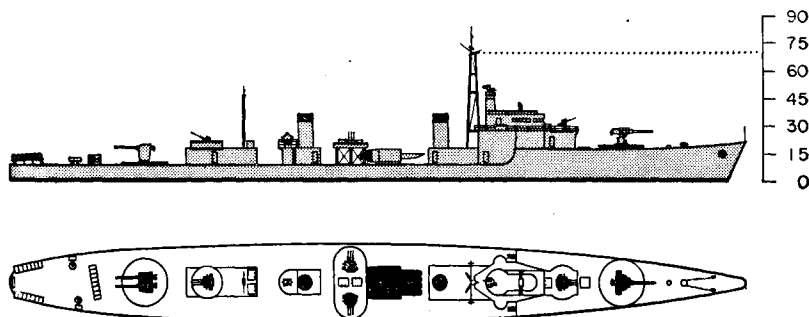


SHIMAKAZE—November 11, 1944.

# DD—Escort Destroyers

## MATSU Class

*Class built between  
1943 and 19...  
Complement—200-210*



MOMO	YANAGI	SUSUKI
MOMI	HAGI	SUMIRE
UME	FUJI	HASU
TAKE	AOI	ENOKI
SUGI	KIKU	KAEDE
TSUBAKI	KATSURA	KASHI
HINOKI	HASHI	KEYAKI
KAYA	SAKURA	KIRI
KASHIWA	MAKI	NARA
TACHIBANA	KUSU	TSUTA

### Remarks

First of Japan's war-built escorts of the destroyer type are the rather numerous units of the new MATSU Class. They mark an unusual departure from conventional Japanese torpedo craft design and reflect an attempt to counter the aerial threat to convoys and small warships. Bearing the names given 20-30 years ago to "second-class destroyers," they probably were intended to fulfill analogous functions in the present Japanese fleet. In general fighting value they are in the same bracket with the British World War II "Hunt" series of small escort destroyers, and rate somewhat above the American DE or "destroyer escort."

Their outboard features suggest simplified construction for mass production; the long, low bridge is apparently dictated by war experience and follows a similar trend in other major navies. It has been reported that these ships are powered with geared turbines for a speed of 30 knots. The wide spacing of their stacks indicates separated fire rooms, a measure employed to reduce the effect of damage to their propelling plant. They share this feature with recent American destroyers and German Schichau torpedo-boat designs of the past. On an estimated standard displacement of around 1,000 tons and for a speed of 30 knots, a shaft output of some 20,000 HP. would be required. Assuming this estimate to be correct, the small stacks fitted in the MATSU would call for high pressure boilers. High pressure boilers, together with high capacity turbines and reduction gears, are items absorbing considerable industrial war potential on a mass production basis. Their estimated beam of 33 feet should make these ships rather stable gun platforms, unless they are overloaded with their present armament.

While their close-defense weapons appear to be adequate for units of this type, the MATSUs' main battery is definitely makeshift. Four or six 4" dual-purpose guns in twin mounts, as mounted in the British "Hunt's," would have been far more effective. Availability and expediency probably dictated the selection of the guns and mounts actually fitted. According to reports, no director fire-control system is fitted, only pointer fire, with range and deflection figures transmitted by telephone from the bridge. As in some of the "Hunt's" and American DE's, a single nest of four torpedo tubes is mounted. These tubes house the powerful Type 93, 24" torpedo.

### Dimensions

Displacement: 1,000 tons (stand.).  
Length: 320' 0"-330' 0" (oa.).  
Beam: 33' 0".  
Draft:

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
3	5"/40	89	85°	15,000	35,000	45

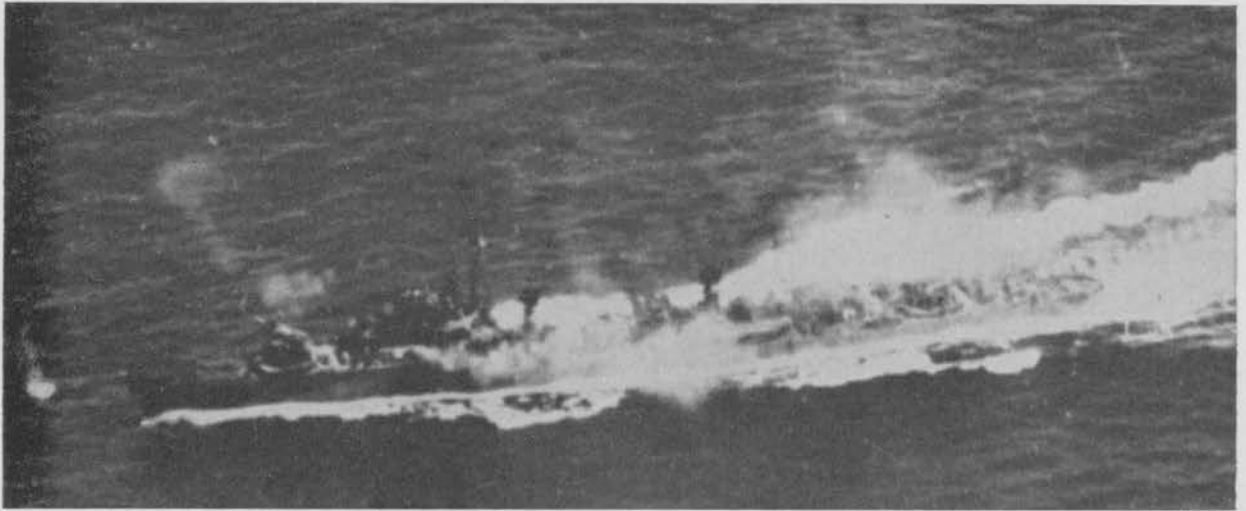
12 25 mm AAMG (triple mounts);  
Additional 25 mm and 13 mm AAMG (single mounts);  
disposition unknown;  
4 24" TT (quadruple mount); ..... reloads  
Depth Charge Racks.  
Depth Charge Throwers: 2.  
Number of Depth Charges: 120 (max.).

### Propulsion

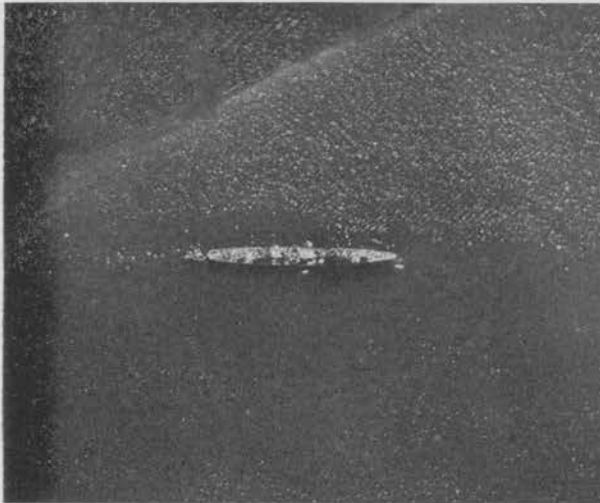
	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	27-28	.....	.....	.....
Full:	30	.....	.....	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	18-20	.....	.....	.....
Economical:	.....	.....	.....	.....
Drive: ..... Screws: .....				
Fuel: ..... Capacity: ..... tons (max).				

### Notes

Fitted with Mark II, Model II, two-horn type radar for surface search.  
Reported to carry fixed and directional RSR antennae.



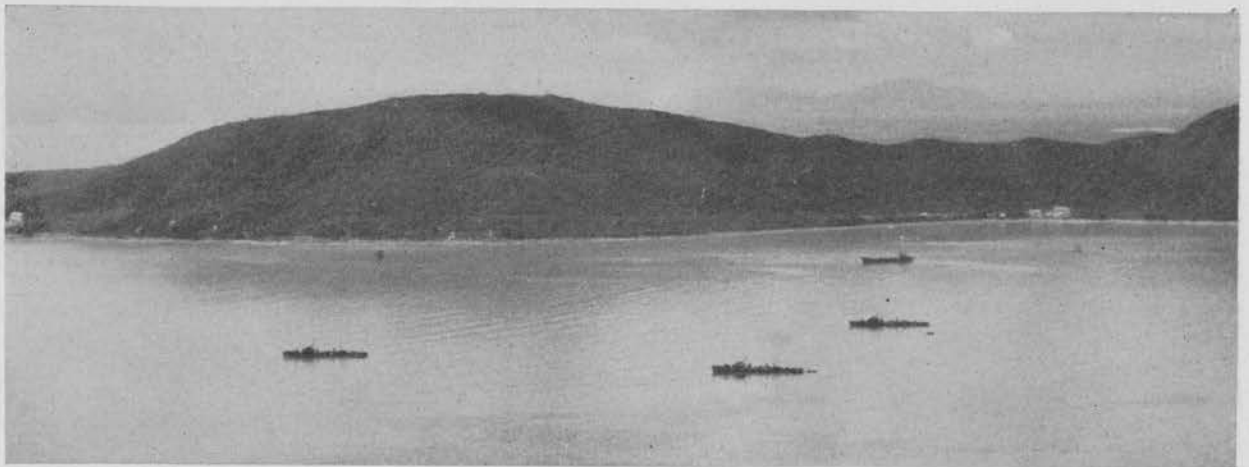
MATSU Class—October 24, 1944.



MATSU Class, Hongkong—January 16, 1945.



MATSU Class, Toshien, January 9, 1945.

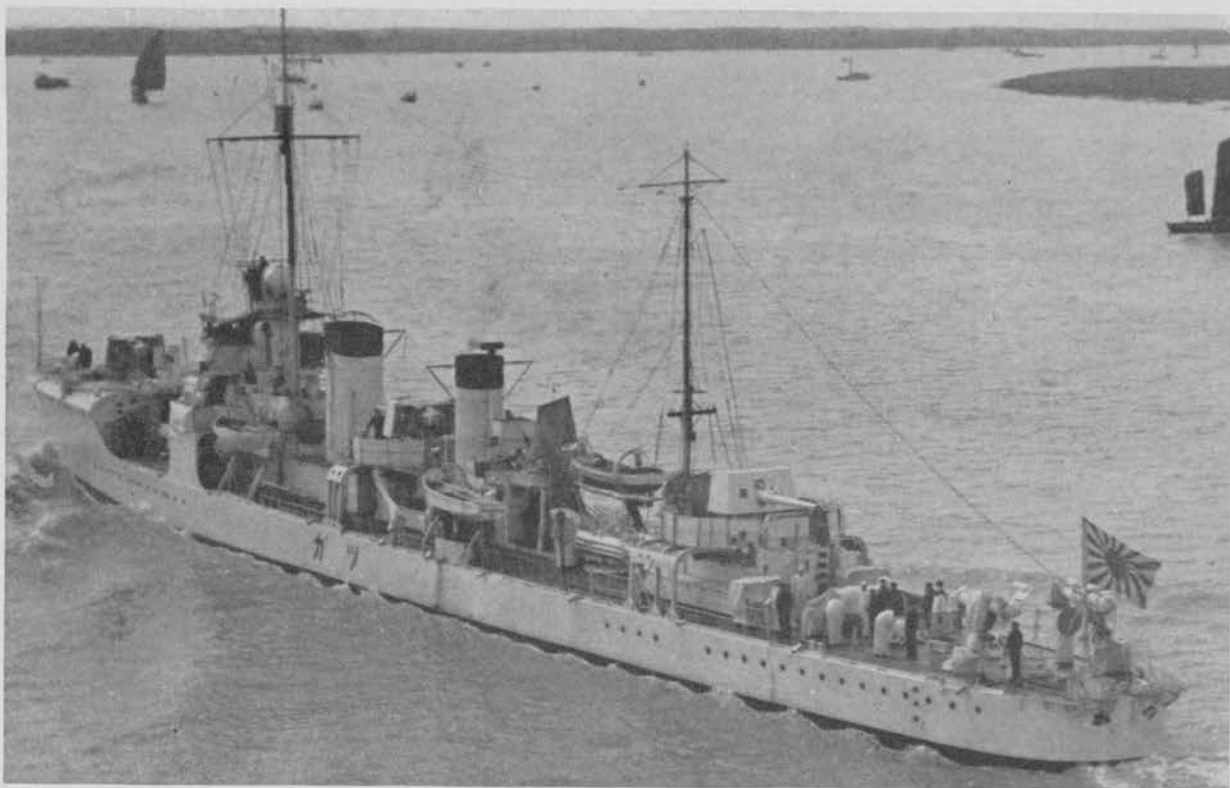


Three units of MATSU Class, Cap St. Jacques—December 31, 1944. Note widely spaced stacks and low bridge.





KAKI—December 1928.



TSUGA—1937.



HASU—August 1937.





KURI—WAKATAKE Class—March 30, 1944. Note forward torpedo tubes removed.



TSUGA—1940.



DM conversion—September 6, 1942.

# NOTES

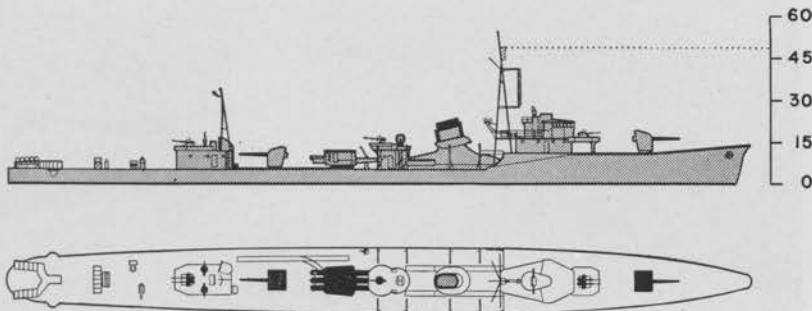


# TB—Torpedo Boats

## CHIDORI Class

Class built between 1931 and 1934  
 Modernized—1934–35  
 Complement—135

TB 1—CHIDORI  
 TB 3—TOMOZURU  
 TB 4—HATSUKARI



### Dimensions

\*Displacement: 527 tons (stand.).  
 Length: 268' 6" (oa); 253' 11" (wl).  
 Beam: 24' 2";  
 Draft: 6' 0" (mean); ..' .." (max.).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
2	4.7"/	.....	.....	.....	.....	45
.....						
**5 25 mm AAMG;						
**2 13 mm AAMG;						
2 21" TT (twin mount); .. reloads;						
.. Mines; .... Depth Charges: Yes;						
.... Depth Charge Throwers fitted.						

### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	26.0	.....	7,000	.....
Full:	.....	.....	.....	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	.....	.....	.....
Drive: Turbines; Screws: 2.				
Fuel: Oil; Capacity: .... tons (max.).				

### Notes

\*Standard displacement believed to be greater.

\*\*Represents minimum AA armament.

Foremast fitted with ladder-type radar antenna, Mark I, Model III land-based, possibly called Mark II, Model IV when ship-borne.

Most units refitted since 1941; #3 shield mount replaced by AAMG, and radar added.

### Remarks

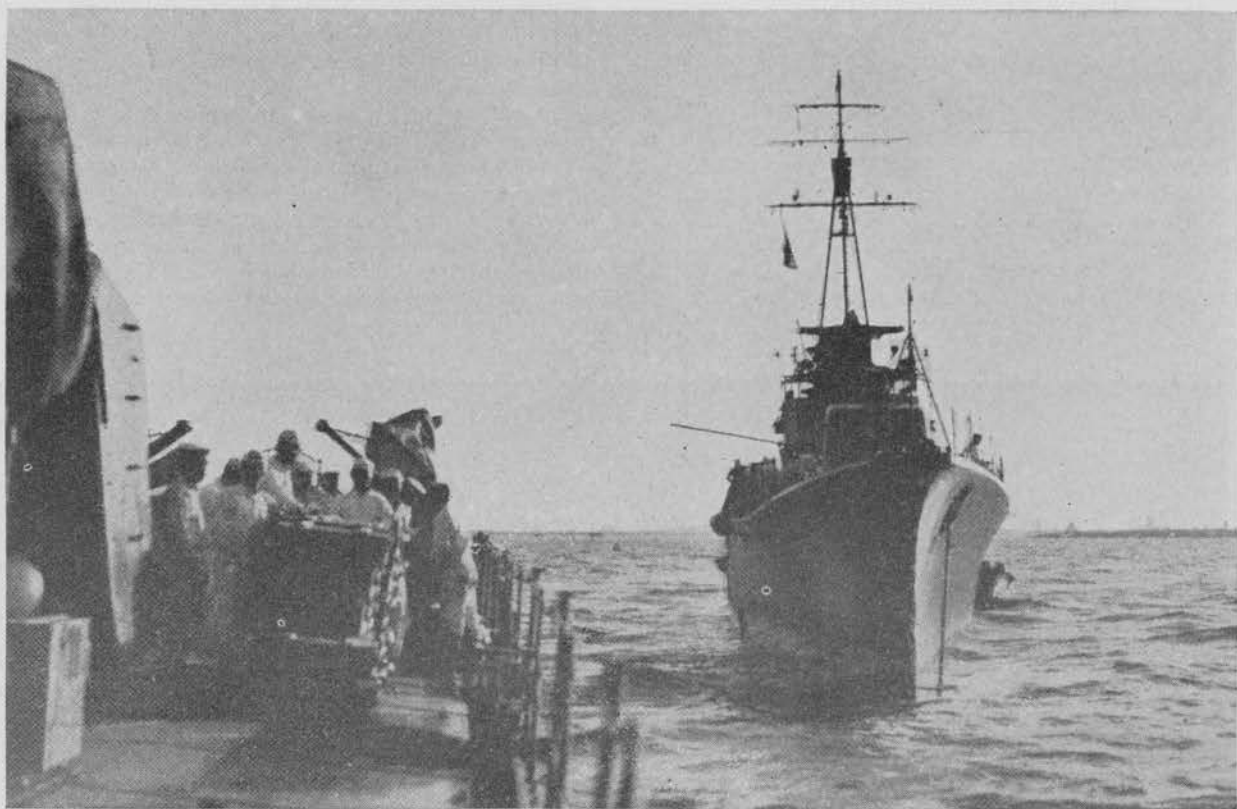
These units were probably intended as replacements for the aging "second-class destroyers" of the KURI-WAKATAKE Classes. The officially announced characteristics for the CHIDORI Class placed them in the "unlimited" category of small warships under the qualitative and quantitative limitations of the London Naval Treaty of 1930. Their actual standard displacement is believed to be considerably higher. Nevertheless, they were definitely overloaded as first completed, with two nests of tubes and three 5" guns in single enclosed mounts. The capsizing of the TOMOZURU in 1934 resulted in considerable reduction in top weights in this class and an increase in beam in the very similar OTORI's that followed. Stability was improved by reducing the size of the bridge and substituting the present armament. They are reported fitted with a stabilizing device, and capable of being used for minelaying and minesweeping.



CHIDORI Class—1944.



CHIDORI Class under attack. French Indo China— March 1945.



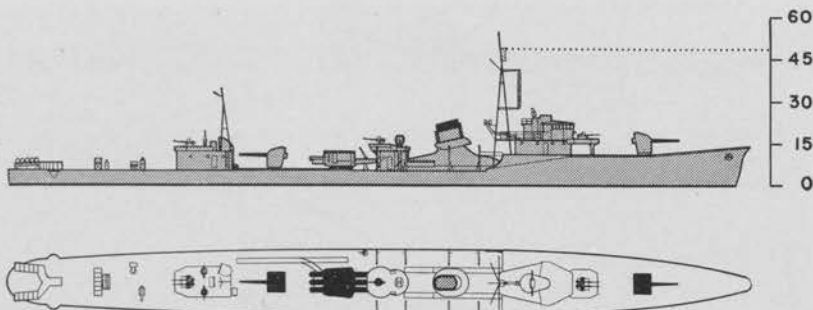
CHIDORI Class, bow on view (pre-war).

# TB—Torpedo Boats

## OTORI Class

Class built between 1934 and 1937  
Complement—135

TB 6—HAYABUSA  
TB 11—KARI  
TB 12—KIJI



### Dimensions

\*Displacement: 595 tons (stand.).  
\*\*Length: ..' .." (oa); 263' 0" (wl).  
Beam: 25' 10".  
Draft: 6' 9" (mean); ..' .." (max.).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
2	4.7"/45	.....	45°	17,600	.....	45
***5	25 mm AAMG;					
***2	13 mm AAMG;					
3	21" TT (triple mount); .. reloads;					
.. Mines; Depth Charges: Yes; .. D. C. Throwers fitted.						

### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	28.0	.....	9,000	.....
Full:	.....	.....	.....	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	.....	.....	.....
Drive: Turbines, geared; Screws: 2.				
Fuel: Oil; Capacity .... tons (max.).				

### Notes

\*Standard displacement believed to be greater.  
\*\*It is estimated that units of this class are 294'-0" over-all.  
\*\*\*Represents minimum AA armament.  
Reported to be satisfactory as regards stability.  
Foremast fitted with ladder type radar antenna, Mark I, Model III land-based, possibly called Mark II, Model IV when ship-borne.  
Most units refitted since 1941; #3 shield mount replaced by AAMG, and radar added.

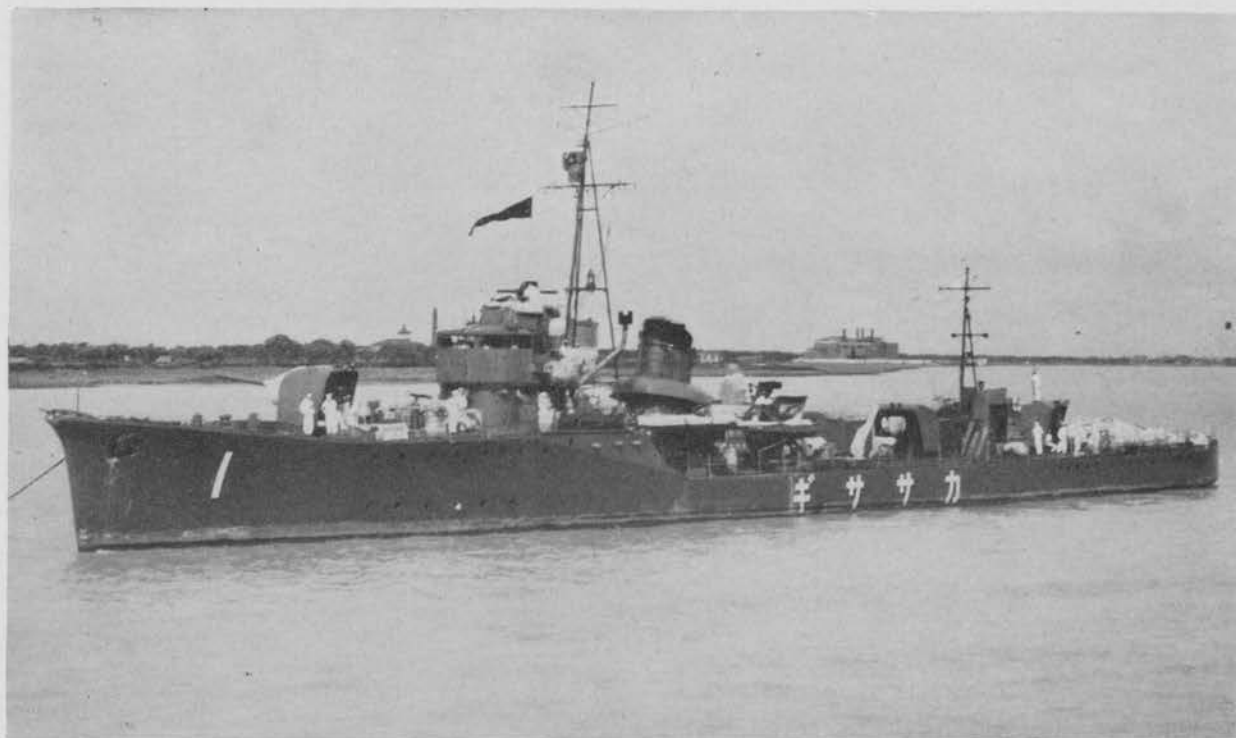
### Remarks

Ships of this class are larger, wider, and faster versions of the CHIDORI Class. Though antedating the American war-built DE, they bear a certain resemblance to and were probably intended for the same general duties as the larger American units. The over-all success of these boats may be judged by the fact that the Japanese did not see fit to continue the series.

One unit of this class has been photographed recently, with certain modifications evident: Number three 4.7"/45 gun mount has been removed and light AA substituted.



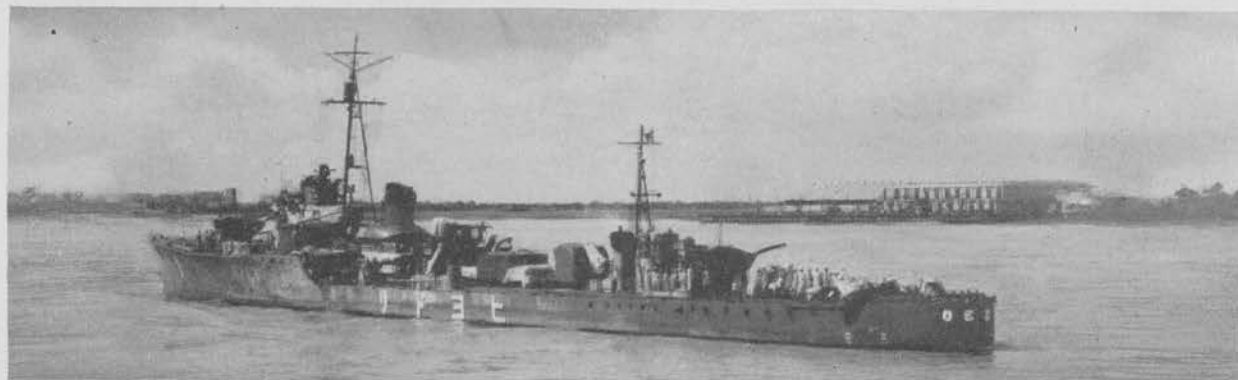
HAYABUSA—1938.



KASASAGI (pre-war).



HAYABUSA—August 18, 1937.



HIYODORI—September 1937.



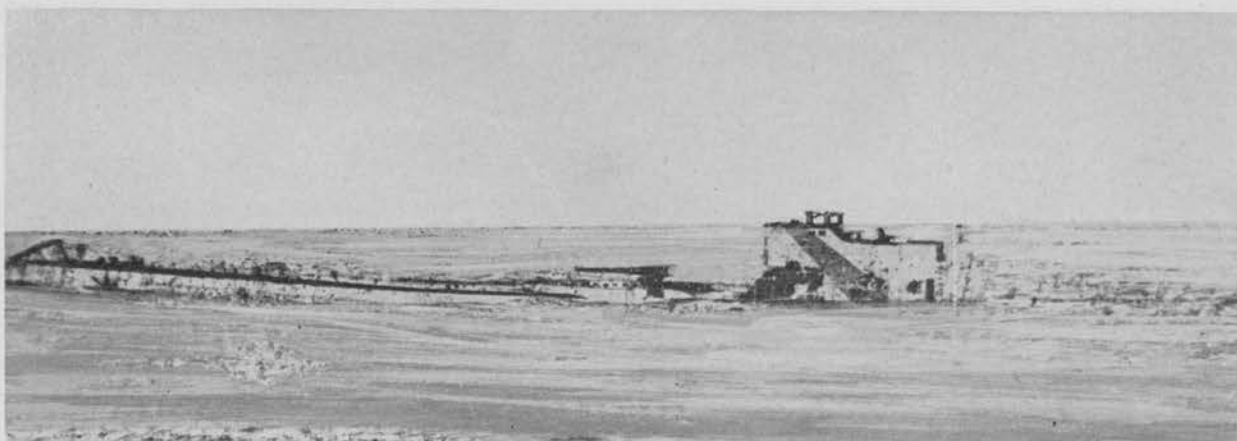




I-7 (pre-war).



I-7 (pre-war).



I-5 Class.

# SS—Submarine Cruisers

## I-15 Class

Class built between 1940 and 19—  
Complement—94-96

I-26 I-41 I-47  
I-36 I-44 I-48  
I-37 I-45 I-49  
I-38 I-46

### Dimensions

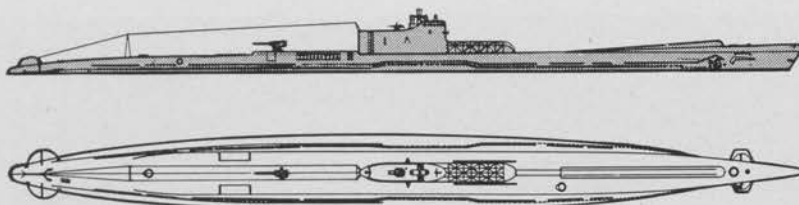
Displacement: 2,100 tons (stand.).  
..... tons (submgd.).  
Length: 335'-338' (oa).  
Beam: 25' 0"  
Draft: 17' 8"-21' (surfaced).  
Depth: 327' (safe); 327' (tested)

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
*1	5.5"/50	3	30°	19,000	.....	84
1	25 mm (twin)	85°	5,450	10,500	.....	
6 21" TT (H) (bow); ..' ..' (stern);						
**16 21" torpedoes, Type 89; ..' ..' TT .....						
12 or 14 reloads; Speed 35-45; Rge: 11,000-6,014 yds;						
***... Mines; .....						

### Protection

Type Hull: Double-hulled, lightly plated, joints riveted,  
not welded.  
Compartments: .....  
Special Features: .....



### Propulsion

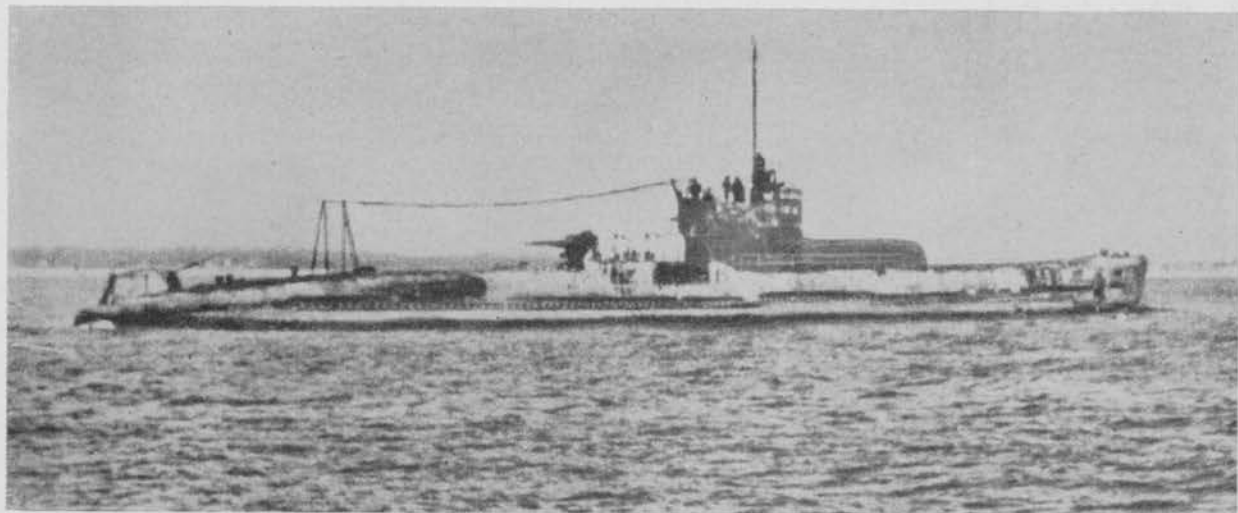
	Speed (knots)	Endurance	HP	RPM
Designed:	17.0	.....	6,000	.....
Full:	16.0	14,000 mi.	.....	.....
Max. Sust.:	.....	.....	.....	.....
Economical:	.....	.....	.....	.....
Full Submgd.:	7.0	.....	2,000	.....
Submgd at:	.....	.....	.....	.....
Crash Dive: 2-3 Min.;				
Drive: .....; Screws: 2;				
Fuel: 600-700 tons oil (max.) ****				

### Notes

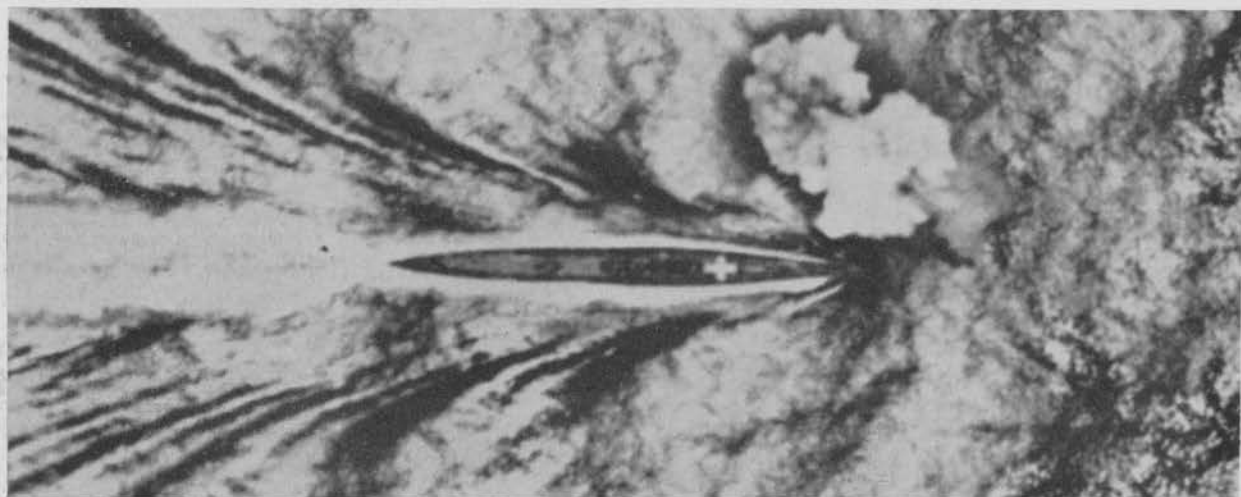
\*4.7" DP may be mounted in recent units.  
\*\*Type 95 also reported.  
\*\*\*Some units are reported to have been converted to  
minelayers.  
\*\*\*\*Probably carried for refueling other submarines.  
Some units mount deck gun forward and carry deck  
cargo aft. Fitted with Mark II, Model II 2-horn  
radar for surface search and fire control. Fitted with  
2 radar search receivers. Capacity as transport:  
20 tons (internally), 40 tons (on deck) or 156 troops  
(internally). This class is still under construction.  
Some units carry planes, midget SS or landing craft  
(Types A, B, or F).



I-15 Class.



I-15 Class (pre-war).



I-15 Class—September 28, 1943.

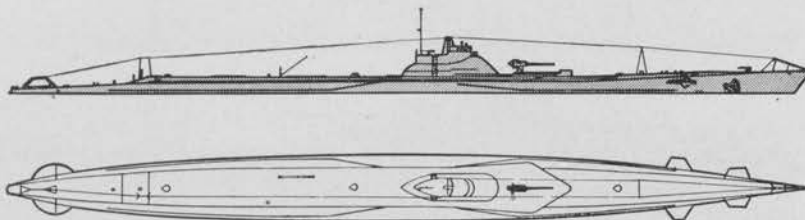


# SS—Fleet Submarines

## I-153 Class (includes I-155 Class)

*Class built between 1924 and 1930.  
Complement—9 officers, 73 men.*

I-153 (EX I-53, EX No. 64)  
I-154 (EX I-54, EX No. 77)  
I-155 (EX I-55, EX No. 78)  
I-156 (EX I-56)  
I-157 (EX I-57)  
I-158 (EX I-58)  
I-159 (EX I-59)



### Dimensions

Displacement: 1,635 tons (stand.).  
2,100 tons (submgd.).  
Length: 331' 0" (oa).  
Beam: 26' 0".  
Draft: 16' 1" (max.) (surfaced).  
Depth: 176' (safe); 200' (tested).

### Armament

No.	Cal.	Mark	Elev.	Range. (yds.)	Ceil. (ft.)	Proj. (lbs.)
1	4.7"/40	....	30°	14,200	.....	.....
1	AAMG	....	.....	.....	.....	.....

6 21" TT (H) (bow); 2 21" (stern);  
16 21" torpedoes, Type 89;  
8 reloads; Speed: 35-45; Range: 11,000-6,014 yards.  
.. Mines; .....

### Protection

Type Hull: Double-hulled, no armor.

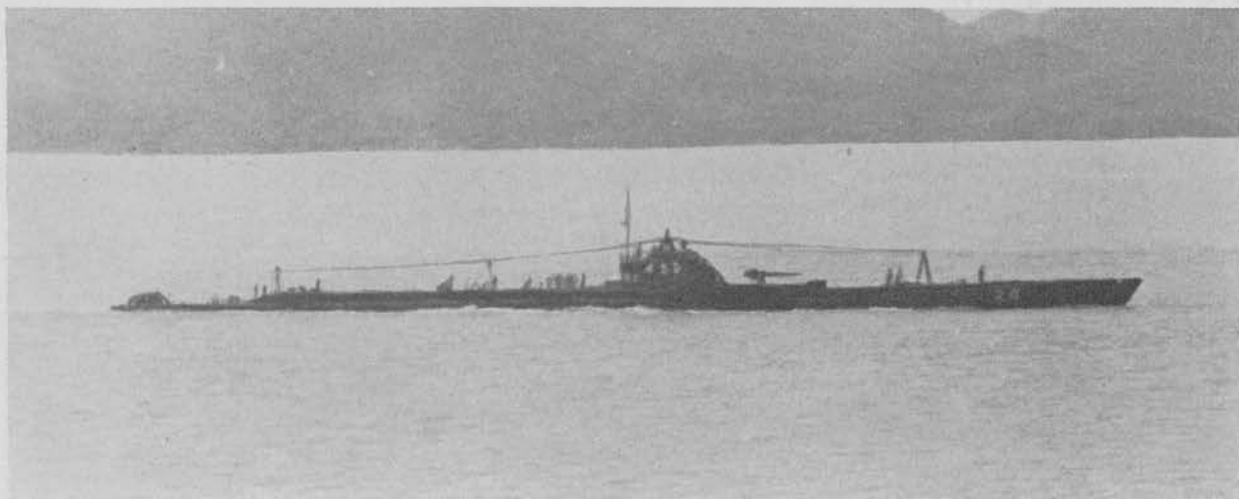
Compartment: .....  
Special Features: .....

Propulsion	Speed (knots)	Endurance	HP	RPM
Designed:	20.0	.....	6,800	300
Full:	.....	.....	.....	.....
Max. Sust.:	16.0	5,200 mi.	.....	.....
Economical:	.....	.....	.....	.....
Full Submgd.:	8.0	.....	1,800	190
Submgd at:	5.0	9 hrs.	.....	.....

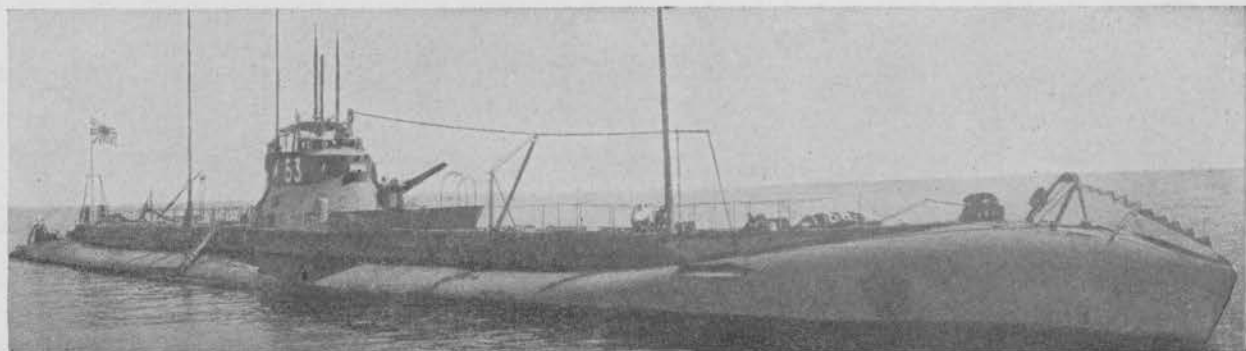
\*Crash Dive: 81 sec.;  
Drive: .....; Screws: ...  
Fuel: 255 tons oil (max.).

### Notes

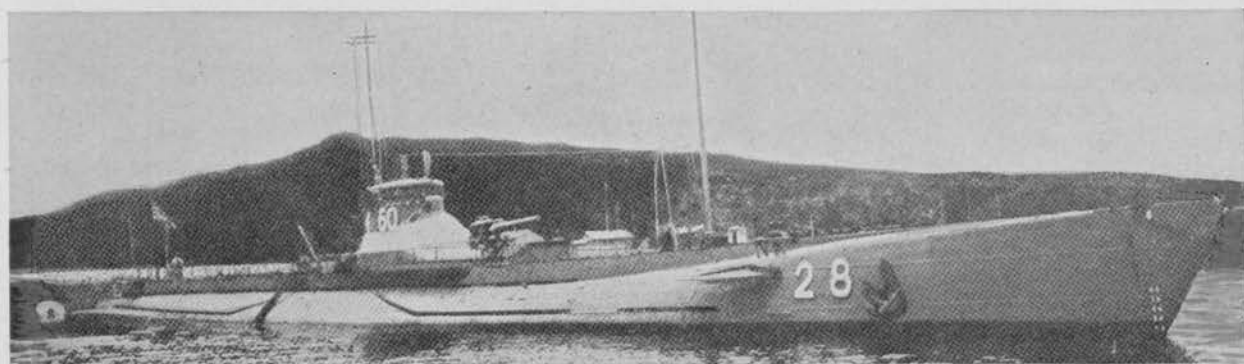
\*Data given is for periscope depth in seconds.  
I-158 carries three periscopes.  
This is the oldest operational class.  
Units of this class are now employed as "training and guard vessels."



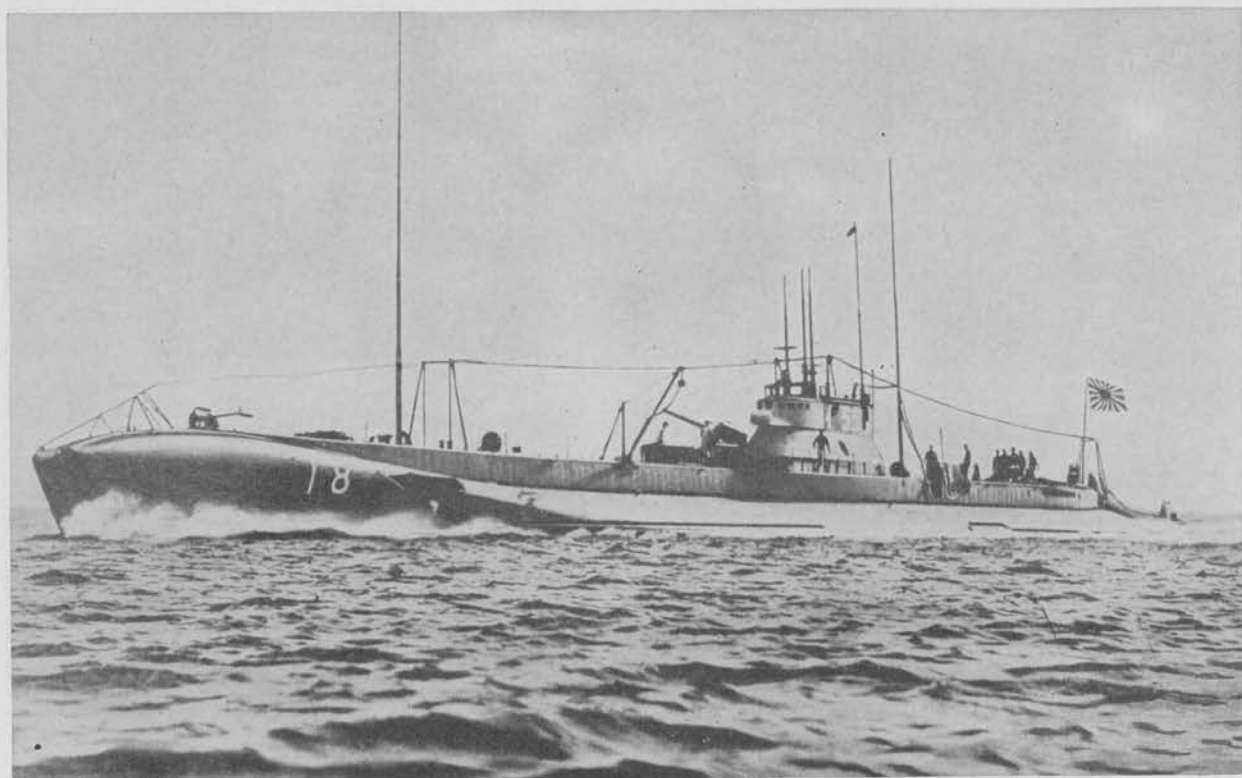
I-159—December 1938.



I-153—1934.



I-155 (pre-war).



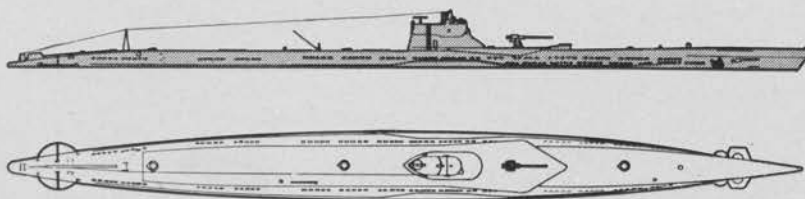
I-160 (pre-war).

# SS—Fleet Submarines

## I-161 Class

Class built between 1926 and 1932  
Complement—9 officers, 70–73 men

I-161 (EX I-61)  
I-162 (EX I-62)  
I-163 (EX I-63)  
I-165 (EX I-65)



### Dimensions

Displacement: 1,635 tons (stand.).  
2,100 tons (submgd.).  
Length: 321' 0" (oa).  
Beam: 26'–27' 0".  
Draft: 16' 0" (max.) (surfaced).  
Depth: 197' (safe); 246' (tested).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Prof. (lbs.)
*1	4.7"/40	....	30°	14,200	....	....
1	AAMG	....	....	....	....	....
..	mm	....	....	....	....	....

4 21" TT (H) (bow); 2 21" (stern);  
14 21" torpedoes, Type 89;  
8 reloads; Speed 35–45; Range: 11,000–6,014;  
.. Mines: .....

### Protection

Type Hull: Double-hulled.  
Compartments: .....  
Special Features: .....

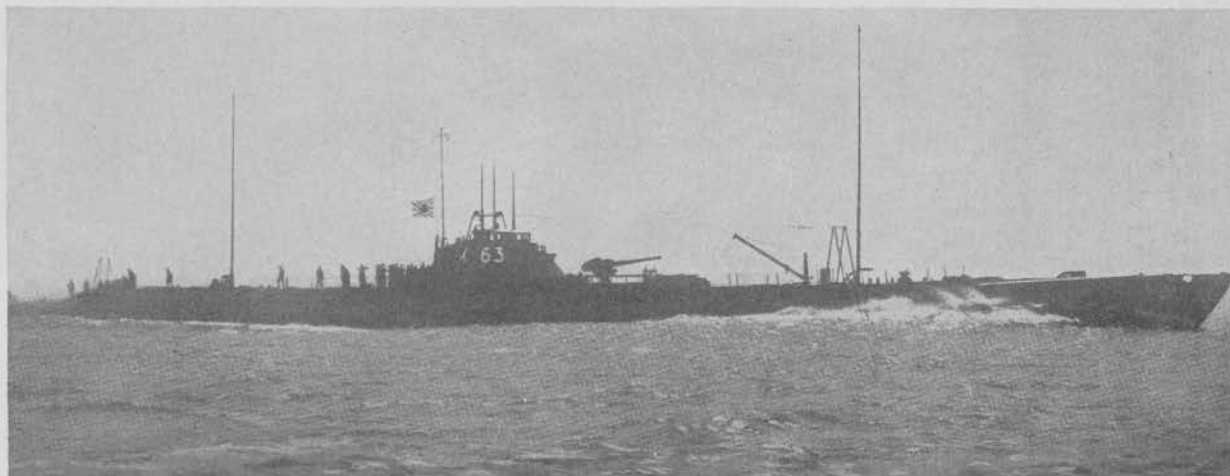
### Propulsion

	Speed (knots)	Endurance	HP	RPM
Designed:	19.0	.....	6,000	.....
Full:	.....	.....	.....	.....
Max. Sust.:	16.0	6,200 mi.	.....	.....
Economical:	.....	.....	.....	.....
Full Submgd.:	8.3–8.5	.....	1,800	190
Submgd. at:	5.0	10 hrs.	.....	.....

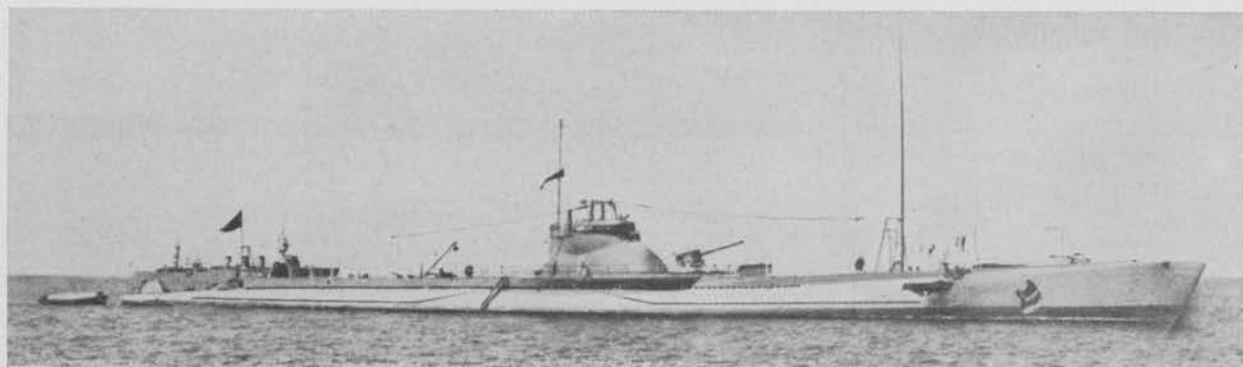
\*\*Crash Dive: 70–81 sec.;  
Drive: Diesel; Screws: 2;  
Fuel: 207–252 tons oil (max.).

### Notes

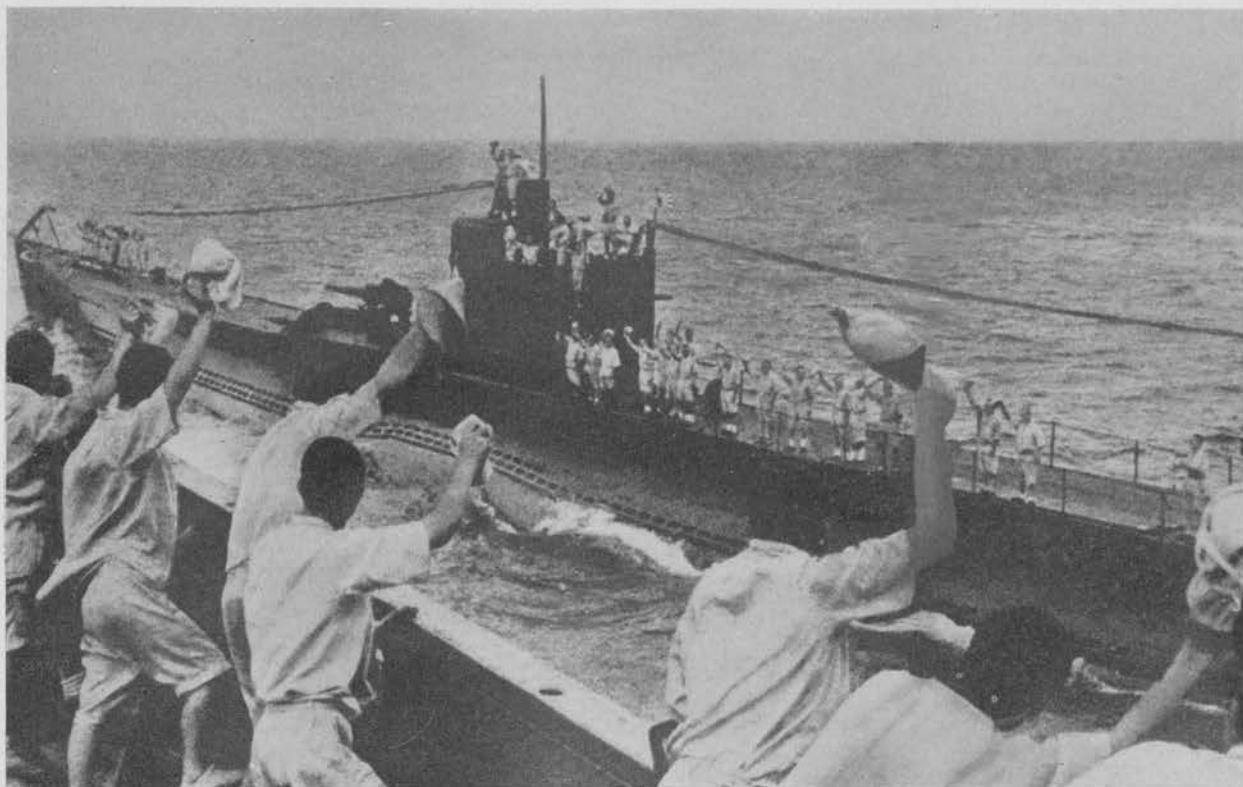
\*Also reported as 4.0".  
\*\*Data given is for periscope depth in seconds.  
Includes I-165 class.



I-163—June 1939.



I-161 Class (pre-war).



I-165 (pre-war).



I-161 Class (pre-war).

## SS—Fleet Submarines

### I-176 Class

*Class built between 1941 and 1943*  
*Complement—88*

I-177 (EX I-77)	I-186 (EX I-86)
I-179 (EX I-79)	I-187 (EX I-87)
I-184 (EX I-84)	*I-188 (EX I-88)
I-185 (EX I-85)	*I-189 (EX I-89)

#### Dimensions

Displacement: 1,609 tons (stand.).  
..... tons (submgd.).

Length: 335' 0" (oa).

Beam: 27' 0".

Draft: 13' 0" (mean) (surfaced).

Depth: 275' (design); ...' (tested).

262'–275' safe tested depth.

#### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
**1	5.5"/50	3	30°	19,000	.....	84
***2 25 mm twin AAMG 5,450 10,500 .....						

6 21" TT (H) (bow); ...." (stern);  
12 21" torpedoes;  
6 reloads; Speed: ....; Range: .....  
.. Mines; .....

#### Protection

Type Hull: Double-hulled.

Compartment: .....  
Special Features: .....

#### Propulsion

	Speed (knots)	Endurance	HP	RPM
Designed:	23.5	.....	2,600	.....
Full:	.....	.....	.....	.....
Max. Sust.:	16.0	8,000 mi.	.....	.....
Economical:	.....	.....	.....	.....
Full Submgd:	8.0	.....	.....	.....
Submgd at:	.....	.....	.....	.....
Crash Dive:	.... min.	.....	.....	.....
Drive:	.....	Screws: ....;	.....	.....
Fuel:	352 tons Oil (max.).	.....	.....	.....

#### Notes

\*Existence unconfirmed.

\*\*Reported abaft conning tower.

\*\*\*Some units have 2 25-mm twins for total armament, when operating as supply transports. Capacity as transport: 15 tons internally, 30 tons on deck, 2 landing craft, or 50 troops and 15 tons cargo. Equipped to carry 1 scout observation plane.

### I-351 Class

*Complement—76.*

I-351

I-352

I-353

#### Dimensions

Displacement 1,600 tons (stand.) (estimated).

#### Armament

6 Bow T T (?).

#### Propulsion

Speed: 23 kts. (surfaced) (?).

8 kts. (submerged) (?).

### I-361 Class

*Complement—48.*

I-361 I-365 I-369

I-362 I-366 I-370

I-363 I-367 I-371

I-364 I-368 I-372

#### Dimensions

Displacement: 1,100 tons (surfaced) (?).

Length: 349' (oa)

Beam: 33'

#### Armament: 1-5"

TT (bow)

#### Notes

This class may be still under construction.

### I-400 Class (Cruiser Transport)

*\*Complement—142*

I-400

I-401

I-405

#### Dimensions

Displacement: 2,500–3,000 tons (estimated).

#### Notes

\*Complement includes 5 flight Petty Officers and 1 flight Warrant Officer.

These units may be used for long-range supply and combat operations. It is believed that a scout observation plane is carried for reconnaissance patrol.

## NOTES

## OSS—Submarines, Coastal Type

### RO-57 Class

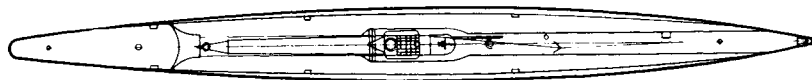
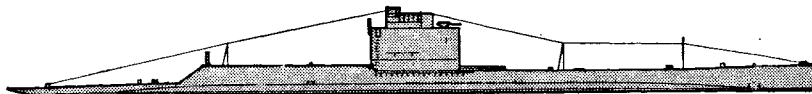
*Class built between 1921 and 1923*

*Complement—7 officers, 52 men*

RO—57

RO—58

RO—59



#### Dimensions

Displacement: 889 tons (stand.).  
1,082 tons (submgd.).

Length: 238' 0" (oa).

Beam: 23' 7".

Draft: 13' 0" (mean) (surfaced).

Depth: 197' (safe); —' (tested).

#### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
1	3"/40	3	75°	12,000	25,000	14.5
1	25 mm			5,450	10,500	
4 21" TT (H) (bow); ..... (stern);						
8 21" torpedoes, 6th Year Model;						
4 reloads; Speed: 25–37; Range: 16,404–7,655 yards;						
.. Mines; .....						

#### Protection

Type Hull: Double-hulled.

Compartments: .....

Special Features: .....

#### Propulsion

	Speed (knots)	Endurance	HP	RPM
Designed:	17.0	7,500 mi.	2,400	.....
Full:	.....	.....	.....	.....
Max. Sust.:	14.0	3,600 mi.	.....	.....
Economical:	.....	.....	.....	.....
Full Submgd:	9.0	.....	1,800	.....
Submgd. at:	.....	.....	.....	.....
Crash Dive:	Min.: ..;	.....	.....	.....
Drive:	Turbine; Screws: 2;	.....	.....	.....
Fuel:	67 tons Oil (max.).	.....	.....	.....

#### Notes

Believed obsolete; restricted to short range operations or training.

## OSS—Submarines, Coastal Type

### RO-60 Class

*Class built between 1921 and 1927*

*Complement—6 officers, 52 men*

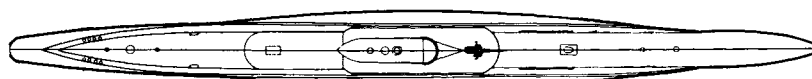
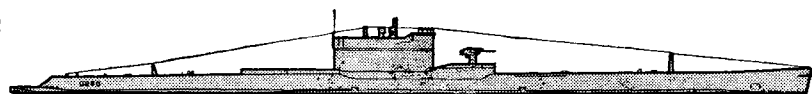
RO—62 (EX No. 73)

RO—63 (EX No. 84)

RO—64

RO—67

RO—68



#### Dimensions

Displacement: 988 tons (stand.).  
1,300 tons (submgd.).

Length: 250' 0" (oa).

Beam: 24' 3".

Draft: 12' 4" (mean) (surfaced).

Depth: 197' (safe); ....' (tested).

#### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
1	3"/40	3	75°	12,000	.....	.....
1	AAMG			.....	.....	.....
4 21" TT (H) (bow); 2 21" (stern);						
12 21" torpedoes, 6th Year Model;						
6 reloads; Speed: .....; Range: .....;						
.. Mines; .....						

#### Protection

Type Hull: Double-hulled.

Compartments: .....

Special Features: 3 3/8" degaussing coils.

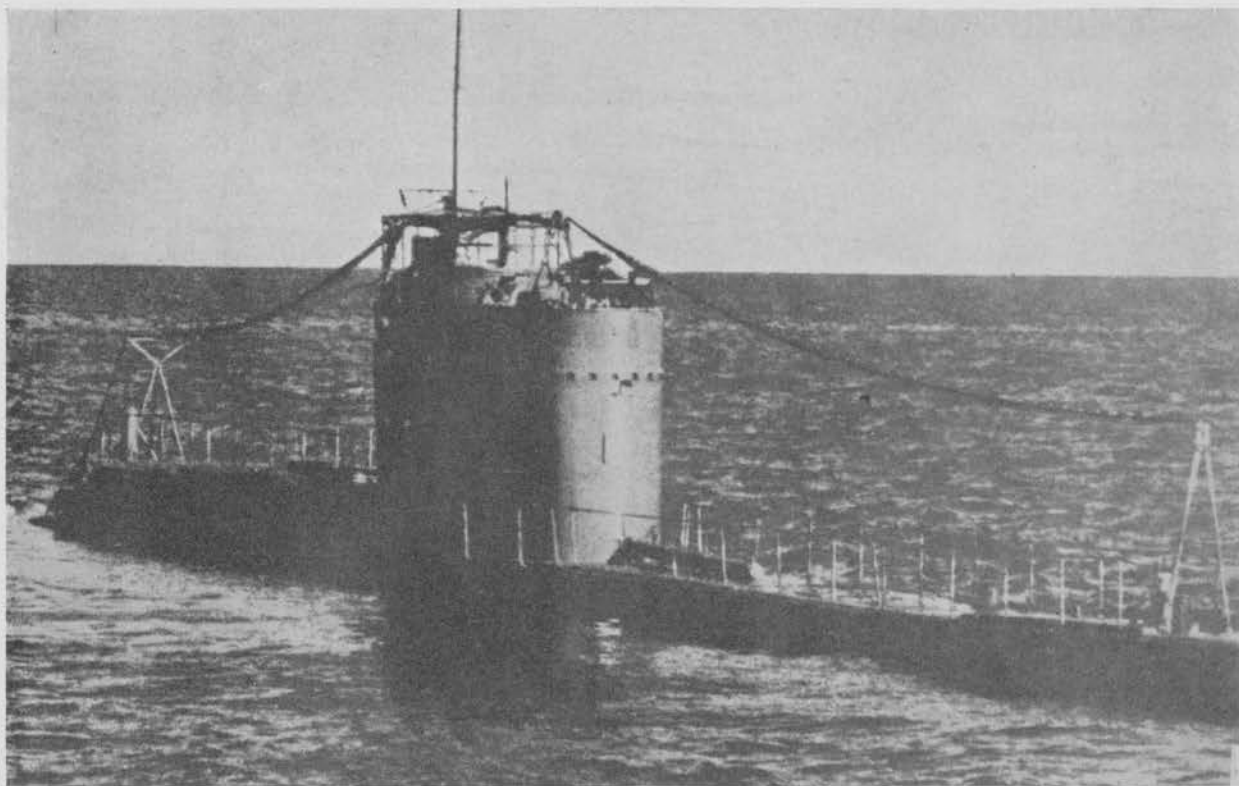
#### Propulsion

	Speed (knots)	Endurance	HP	RPM
Designed:	15.1	.....	2,400	380
Full:	.....	.....	.....	.....
Max. Sust:	13.0	.....	.....	.....
Economical:	10.0	6,000 mi.	.....	.....
Full Submgd:	7.8	.....	1,800	.....
Submgd. at:	.....	.....	.....	.....
Crash Dive:	.. Min.: ..;	.....	.....	.....
Drive:	Turbine; Screws: 2;	.....	.....	.....
Fuel:	75–96 tons Oil (max.).	.....	.....	.....

#### Notes

Units of this class are considered obsolescent. Used for coastal patrol and training.

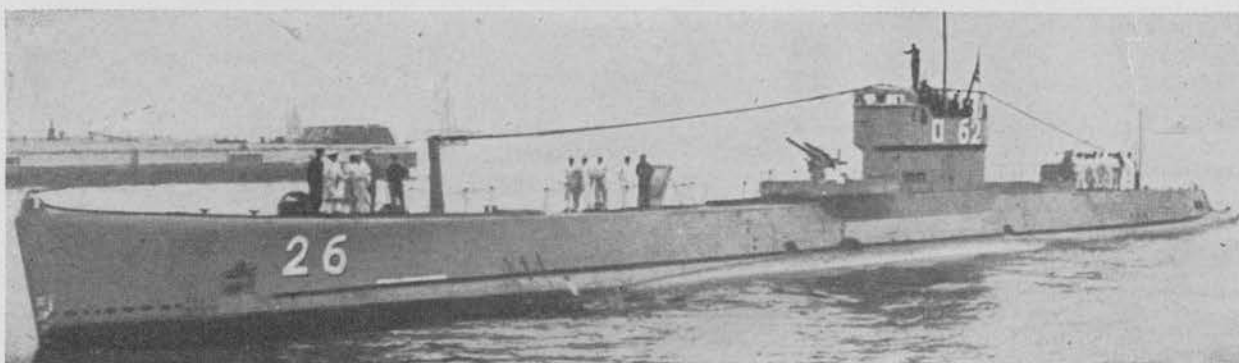




RO-57 Class (pre-war).



RO-58 (pre-war).

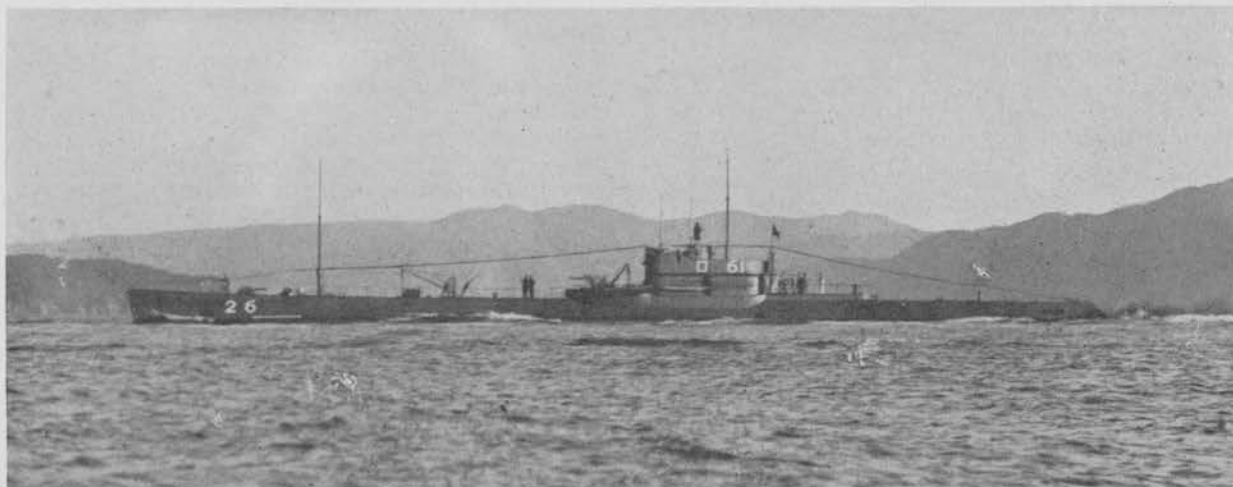


RO-62 (pre-war).





RO-60 (ex 59) (pre-war).



RO-61. Note variation in 3" gun position with RO-60 illustrated above.

# OSS—Submarines, Coastal Type

## RO-35 Class

*Class built between 1942 and 1943*

*Complement—62*

RO—36	RO—50
RO—41	RO—51
RO—42	RO—52
RO—43	RO—53
RO—46	RO—54
RO—47	RO—55
RO—48	RO—56
RO—49	

### Dimensions

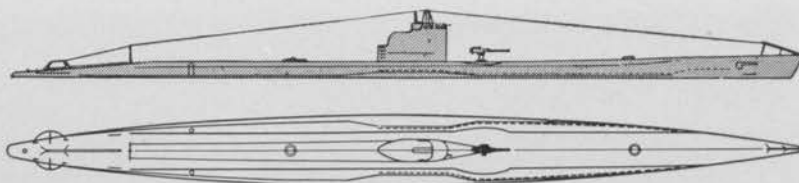
Displacement: 950 tons (stand.).  
 .... tons (submgd.).  
 Length: 255' 0" (oa).  
 Beam: 24' 0".  
 Draft: 12-13' (surfaced).  
 Depth: 262' (safe tested); ... (tested).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
*1	25 mm	.....	.....	5,450	10,500	.....
twin						
4 21" TT (H) (bow); ...." (stern);						
10 21" torpedoes;						
6 reloads; Speed: ....; Range: ....;						
.. Mines: .....						

### Protection

Type Hull: Double-hulled.  
 Compartments: .....  
 Special Features: .....  
 .....



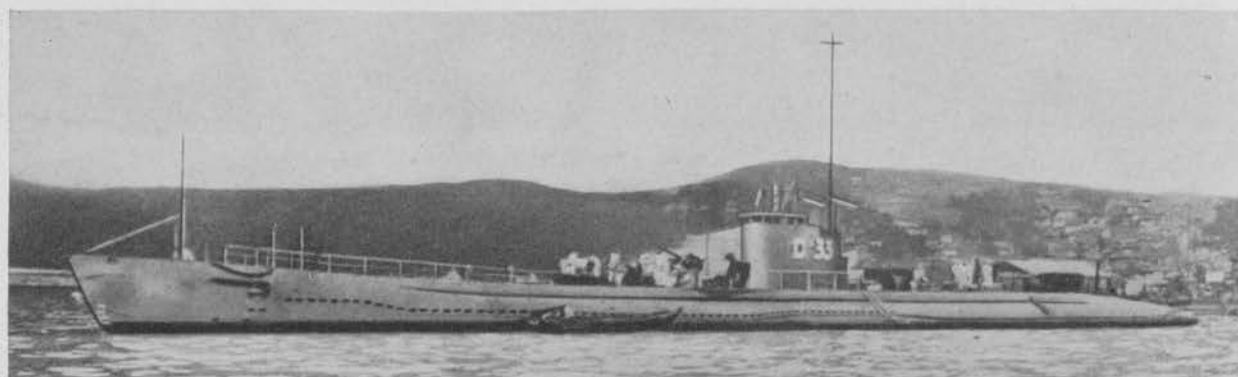
### Propulsion

	Speed (knots)	Endurance	HP	RPM
Designed:	20.0	.....	.....	.....
Full:	.....	.....	.....	.....
Max. Sust.:	16.0	5,000 mi.	.....	.....
Economical	.....	.....	.....	.....
Full Submgd:	8.0	.....	.....	.....
Submgd. at:	3.0	60 hrs.	.....	.....

\*\*Crash Dive: 50 sec.;  
 Drive: .....; Screws: .....;  
 Fuel: .... tons Oil (max.).

### Notes

\*May now be mounting 3"/40 DP guns.  
 \*\*Data given is for periscope depth in seconds.  
 Credited with the highest surface speed and greatest diving depth of the medium coastal group.  
 Assumed to be similar to the RO-33 Class. The RO-70 Class (5 units) and the Seagoing Type RO (KAICHU), previously reported, are actually of the RO-35 Class. Units of Class believed still under construction.



RO-33 Class (pre-war). Design similar to RO-35 Class.

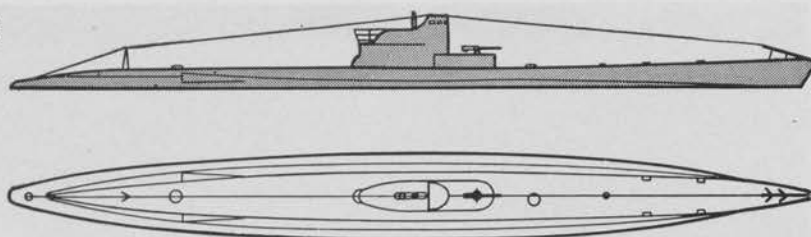
# OSS—Submarines. Coastal Type

## RO-100 Class

*Class built between 1942 and 1944*

*Complement—38*

RO-109	RO-118
RO-111	RO-119
RO-112	RO-120
RO-113	RO-121
RO-114	RO-123
RO-115	RO-124
RO-117	RO-125



### Dimensions

Displacement: 500 tons (stand.).  
 ... tons (submgd.).  
 Length: 180' 0" (oa).  
 Beam: 20' 0"  
 Draft: ...' ...'' (surfaced).  
 Depth: 246' (safe-max.); ...' (tested).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
*1	25 mm	.....	.....	5, 450	10, 500	. 55
4 21" TT (H) (bow); .....'' (stern);						
8 21" torpedoes;						
4 reloads; Speed ...; Range ...;						
**.. Mines: .....						

### Protection

Type Hull: May be single-hulled.  
 Compartments: .....  
 Special Features: .....

### Propulsion

	Speed (knots)	Endurance	HP	RPM
Designed:	14. 2	.....	.....	.....
Full:	.....	.....	.....	.....
Max. Sust:	12. 0	2,500 mi.	.....	.....
Economical:	.....	.....	.....	.....
Full Submgd:	8. 0	.....	.....	.....
Submgd at:	3. 5	60 hrs.	.....	.....

\*\*\*Crash Dive: 45 sec.;

Drive: ..... Screws: .....;

Fuel: ..... tons Oil (max.).

### Notes

\*Reported to be twin mount.

\*\*Reported that some in class are equipped to lay mines, either through deck torpedo tubes or mine shafts.

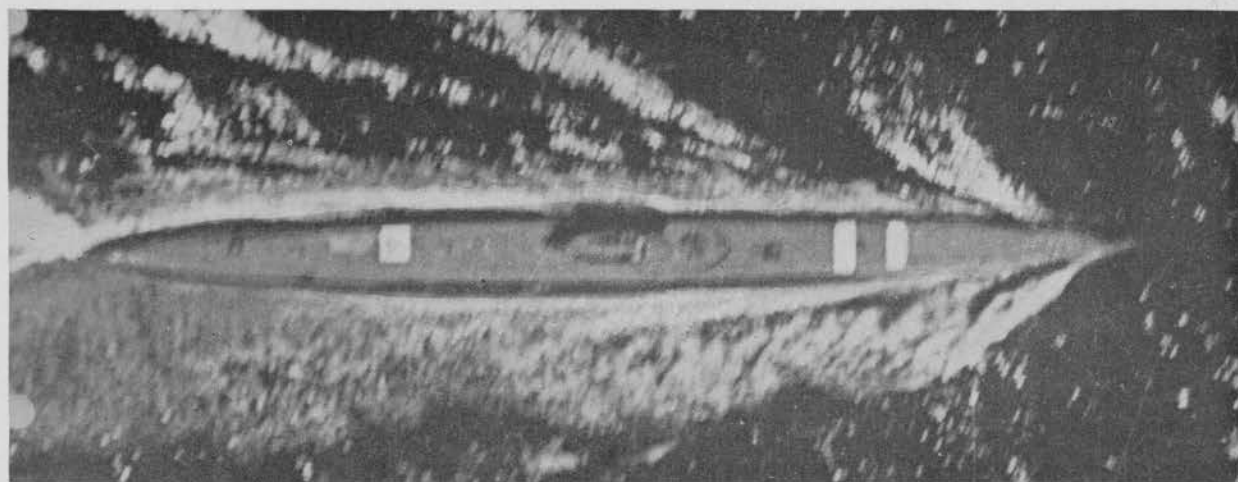
\*\*\*Data given is for periscope depth in seconds.

Some units reported to be used as transports.

Cargo capacity: 7 tons (internally); 4 tons (on deck);

2 landing craft or collapsible boats carried on deck.

This class may be still under construction.



RO-100 Class.



RO-100 Class—March 16, 1943.



# OSS—Submarines, Coastal Type

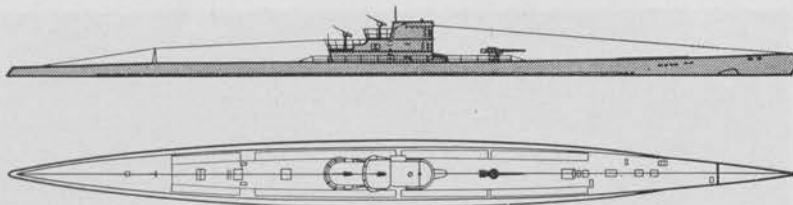
## RO-500 Class

*Class built between 1943-44*

*Complement—53*

RO-500 (EX GERMAN U-1224)

RO-501



### Dimensions

Displacement: 900 tons (stand.) (est.).  
740 tons (announced).

Length: 244' 0" (oa.).

Beam: 21' 0"

Draft: 13' 3" (mean.).

Depth: 875' 0" (tested).

### Propulsion

	Speed (knots)	Endurance	HP	RPM
Designed:	20.0	.....	4,400	480
Full:	19.0	.....	.....	460
Max. Sust:	17.5	.....	.....	415
Economical:	6.0	18,000 mi.	.....	160
Full Submgd:	8.0	.....	1,500	210
Submgd. at.....	.....	.....	.....	.....
Crash Dive: 35-41 sec.	.....	.....	.....	.....
Drive: Diesel/Elec; Screws: 2;	.....	.....	.....	.....
Fuel: 240-300 tons oil.	.....	.....	.....	.....

### Armament

No.	Cal.	Mark	Elev.	Range (yds)	Ceil. (ft)	Proj. (lbs)
*1	105 mm	.....	30°	.....	13,300	38.4
*1	20 mm	.....	85°	.....	.....	.....
*1	37 mm	.....	.....	.....	.....	.....

4 21" TT (H) (bow); 2 21" (stern); 15-23 21" torpedoes  
carried in hull and deck containers.  
Mines: No known Japanese type.

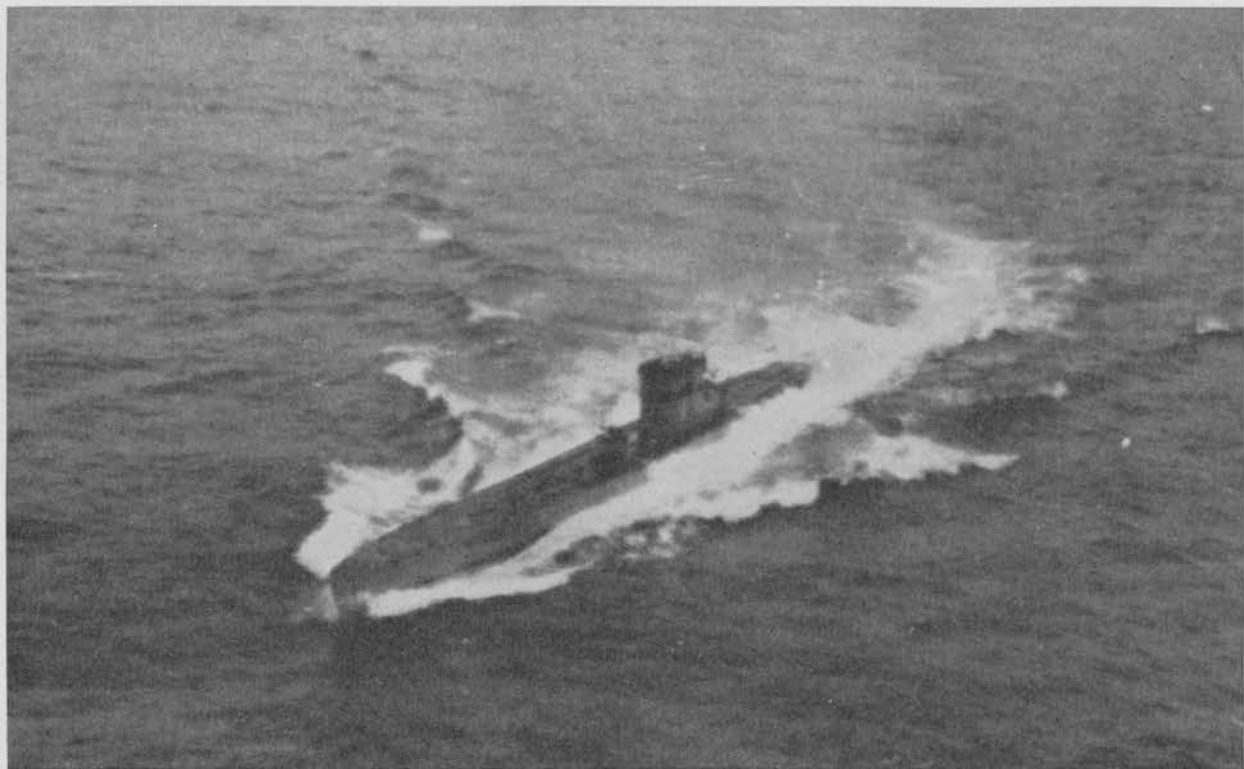
### Notes

\*German ordnance has undoubtedly been replaced by Japanese equipment.  
Probably not fitted with schnorkel.  
Possibly called SATSUKI No. 1 by the Japanese.  
High U-boat number indicates new unit turned over to Japanese at building yard.



RO-500 Class.





RO-500 Class—June 8, 1943.



RO-500 Class—April 23, 1943.

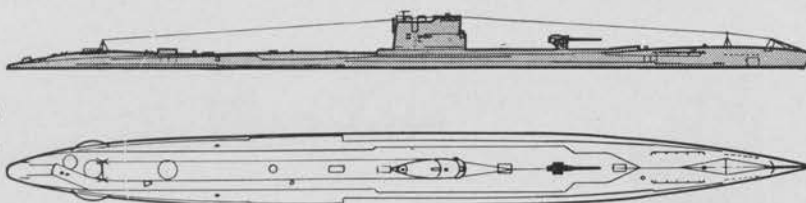
# SM—Submarine Minelayers

## I-121 Class

*Class built between 1924 and 1928  
Complement—8 officers, 58 men*

I-121

I-122



### Dimensions

Displacement: 1,142 tons (stand.).  
1,470 tons (submgd.).

Length: 279' 6" (oa.).

Beam: 24' 6".

Draft: 14' 1" (mean) (surfaced).

Depth: 246' (safe); ... (tested).

### Armament

No.	Cal.	Mark	Elev.	Range (yds)	Cell. (ft)	Proj. (lbs)
1	5.5"/50	3	30°	19,000	.....	84
1	AAMG (possibly 25 mm)			4,000	3,300	.....
*4 21" TT (H) (bow) ...." (stern); 2 minshafts;						
20 21" torpedoes, Type 89;						
.. reloads; Speed: 35-45; Range: 11,000-6,014 yds.;						
42 Mines; Type JII.						

### Protection

Type Hull: Double-hulled.

Compartments: 6.

Special Features: .....

### Propulsion

	Speed (knots)	Endurance	HP	RPM
Designed:	14.0	5,500 mi.	2,400	450
Full:	.....	.....	.....	.....
Max. Sust.:	10.0	12,000 mi.	.....	.....
Economical:	.....	.....	.....	.....
Full Submgd.:	6.5	.....	1,200	450
Submgd. at:	5.0	4 hrs.	.....	.....

\*\*Crash Dive: 80 sec.;

Drive: .....; Screws: 2;

Fuel: 218 tons Oil (max.).

### Notes

\*One tube (stern) too small for mines.

24" TT reported.

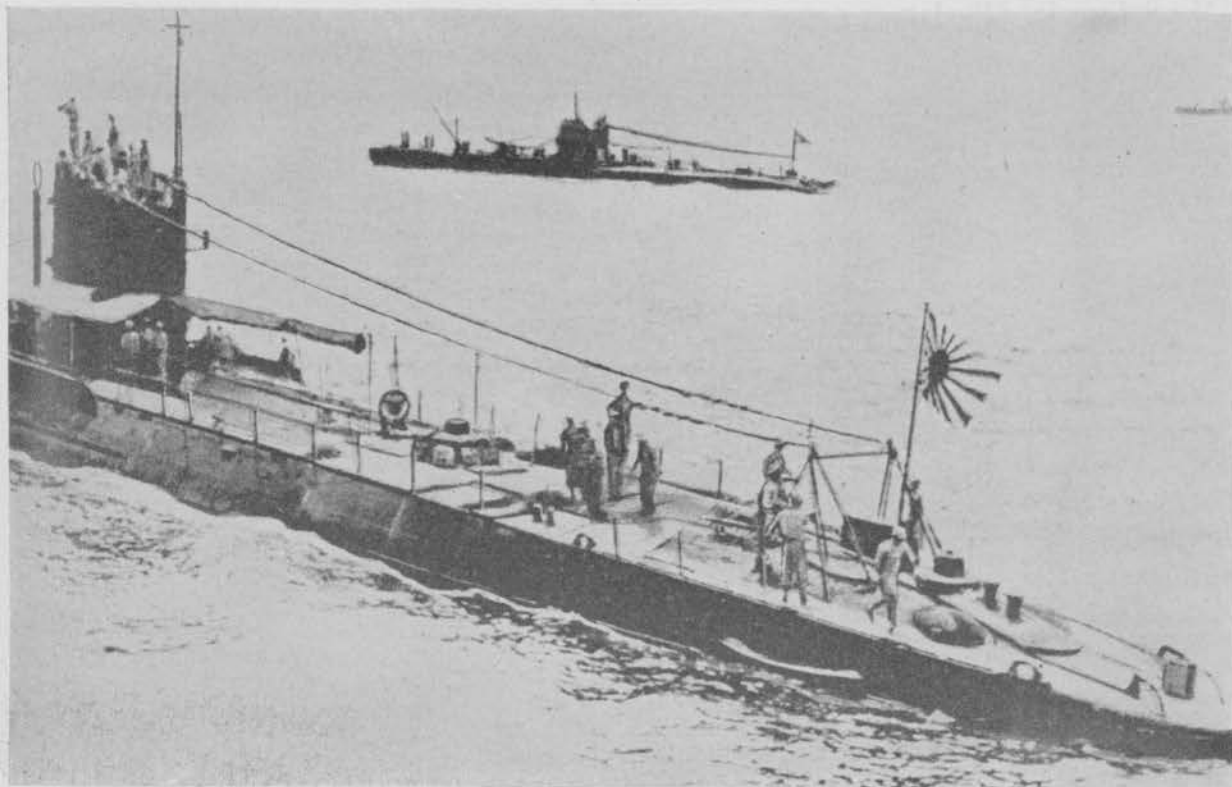
\*\*Data given is for periscope depth in seconds.

Reported used for transport duties.

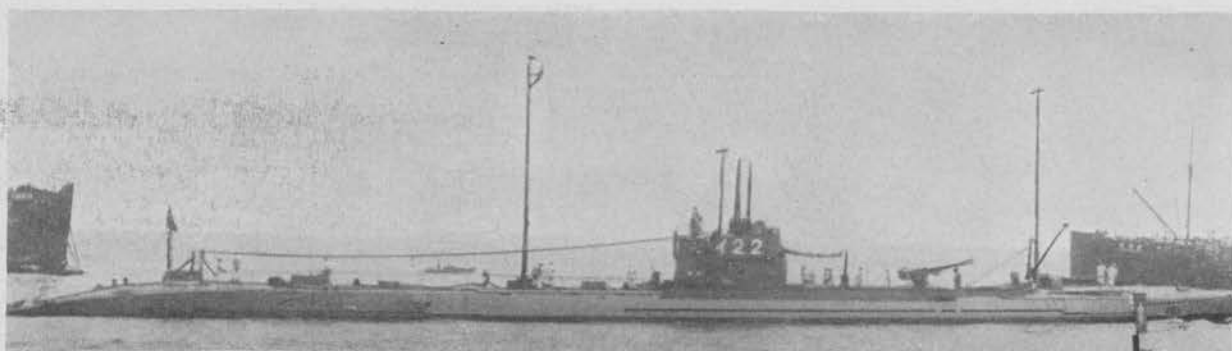
Reported employed as "training and guard vessels."



I-122 (pre-war).



I-121 Class (pre-war).



I-122 (pre-war).



I-123 (pre-war).



# APS—Transport Submarines

*Class built between 1943 and 19—  
Complement—90-100*

## I-52 Class

I-52  
I-53

## I-54 Class

I-54  
I-56  
I-58

### Dimensions

Displacement: 2,800 tons (stand.).  
..... tons (submgd.).  
Length: 360' 0" (oa).  
Beam: 29' 10".  
Draft: 14' 5" (surfaced).  
Depth: 295' (safe); ...' (tested).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
1	4. 7"/45	10	75°	17,500 (effective)	35,000	70.5
*2	25 mm(?)	.....	.....	5,450	10,500	.55
2	21" TT (H) (bow); ...' ...' (stern);					
4 21" torpedoes;						
2 reloads; Speed...; Range...;						
.. Mines; .....						

### Protection

Type Hull: .....  
Compartments: .....  
Special Features: .....

## NO GRAPHIC INFORMATION

### Propulsion

	Speed (knots)	Endurance	HP	RPM
Designed:	16. 0	8, 000 mi.	6, 000	.....
Full:	19. 0	.....	.....	.....
Max. Sust.:	.....	.....	.....	.....
Economical:	.....	.....	.....	.....
Full Submgd:	7. 5	.....	2, 000	.....
Submgd at:	3. 0	60 hrs.	.....	.....
Crash Dive: .... Min:				
Drive: Diesel; Screws: 2;				
Fuel: .... tons Oil (max.).				

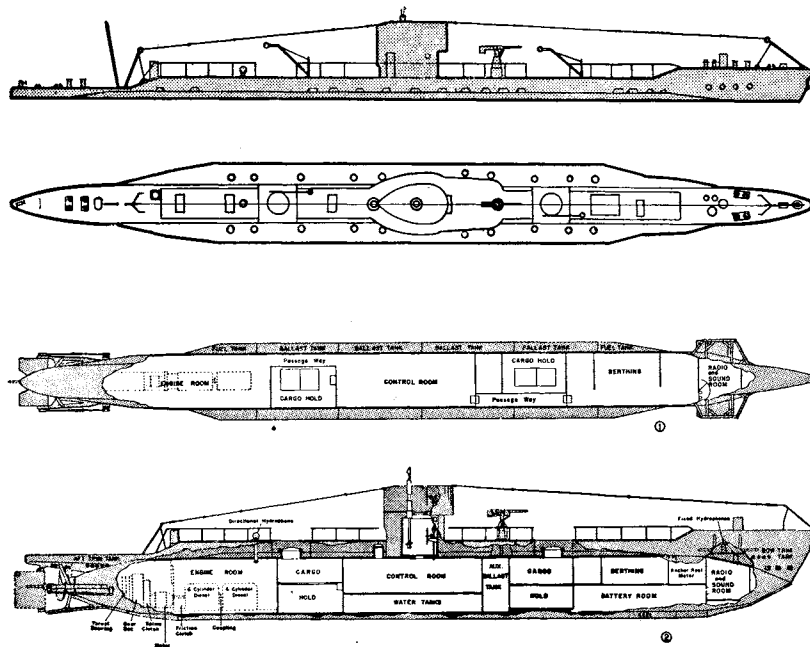
### Notes

\*2 25 mm multiple mounts also reported. Units of I-53 Class believed similar since building program was parallel and tonnage seems identical.  
One of class believed to be completed.  
Cargo capacity:  
250 tons.  
560 tons aviation gasoline.  
200 aerial torpedoes.  
Provisions for 200 men for 1 month.

## NOTES

# YU Type Submarine (Army Transport)

Built—1944  
Complement—16 Army men



## Dimensions

Displacement: 290 tons (light, surfaced).  
346 tons (submerged).  
Length: 137' 0" (oa).  
Beam: 13' 0" (extreme).  
Draft: 10' 0" (mean).  
Depth:

## Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
*1	37 mm	....	50°	.....	.....	.....
1	7.7 mm or Lewis					

## Protection

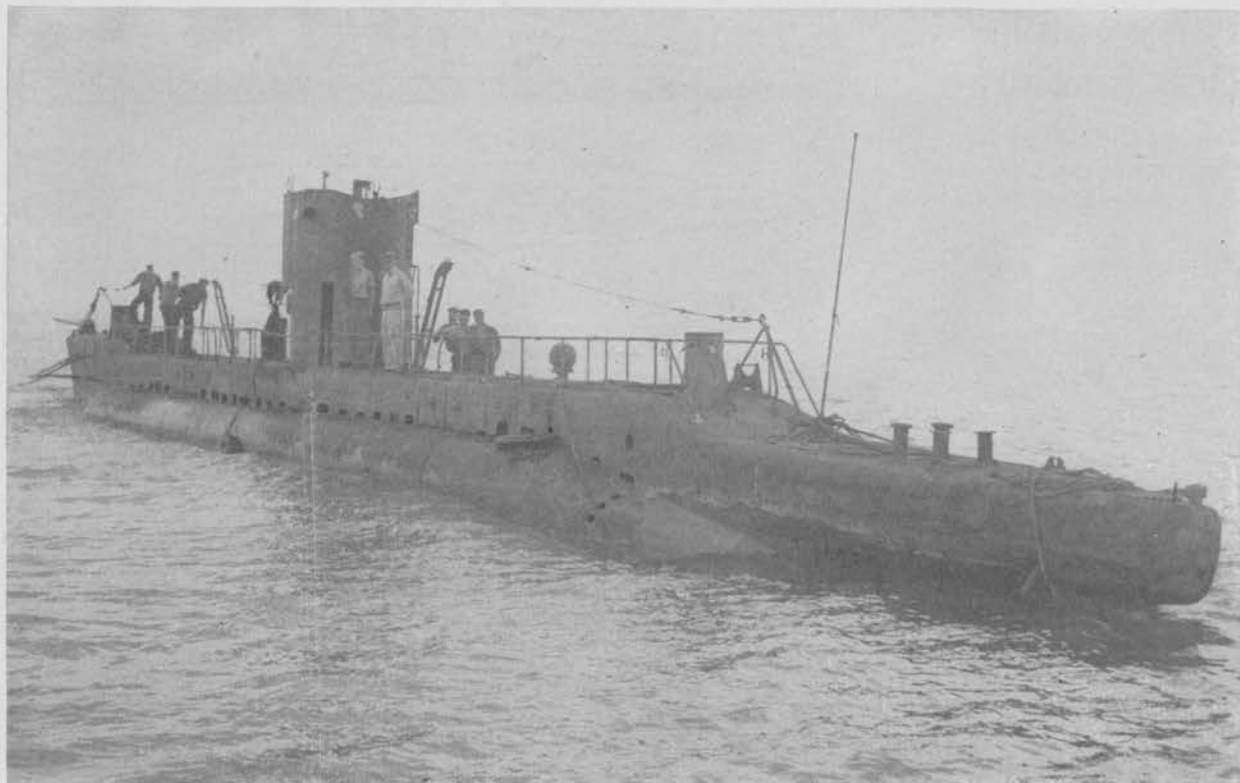
Type hull: Single pressure hull and ballast tanks.  
Compartments: None.

## Propulsion

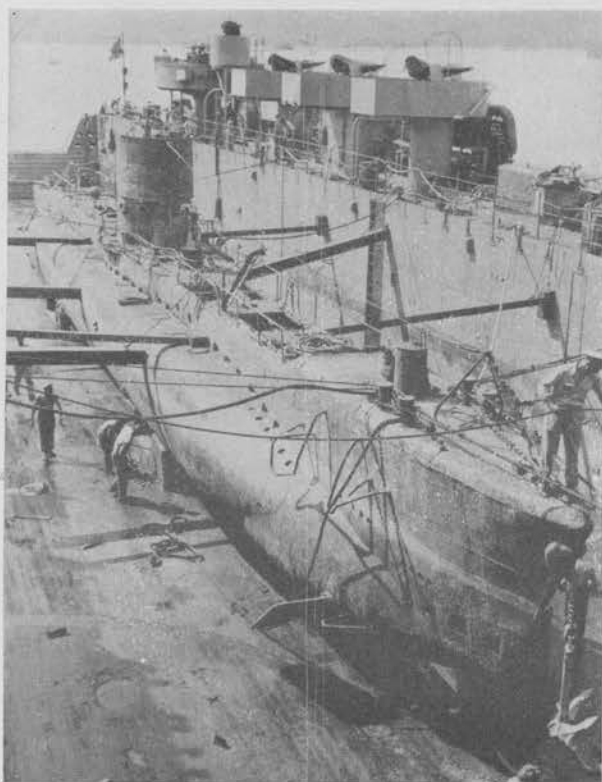
	Speed (knots)	Endurance	HP	RPM
Full: (surfaced)	11.15	2,711 mi.	338.4	1100
Full: (submgd.)	4-5	4 hrs.	.....	.....
Diving:	Gauge calibrated to 150'.			
Motors:	Diesel 2—6 cylinder; 1 100 HP @ 1200 RPM.			
Batteries:	228-2 volt; 200 amp/hr.			
Screws:	1; Fuel: Oil, 5,000 gals.			

## Notes

\*Deck gun is Japanese Army Type 98, semi-automatic tank gun carried on a specially constructed mount. Four hydrophones fitted; three non-directional, one directional. Single 5' periscope.  
Capacity is rated at 50 troops and 4-10 tons cargo or 40 to 50 tons of cargo, including tonnage transported on deck. Cubic capacity of cargo holds limits internal capacity to 32.5 tons.  
A special design built for and operated by the Submarine Transport Battalion of the Japanese Army.



View off port quarter. YU transport submarine salvaged in Lingayen Gulf—January 1945.



View off starboard bow.



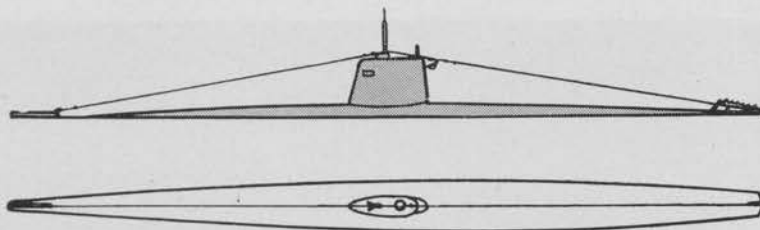
View off port quarter.

# Midget Submarines

## MATO Type

Built:

Complement—2.



### Dimensions

Displacement:

Length: 80' 6" (oa).

Beam: 5' 0".

Depth: 100' (safe).

### Armament

2 18" torpedoes in bow tubes.

### Propulsion

	Speed (knots)	Endurance	HP	RPM
Designed:	.....	.....	.....	.....
Full:	12	70 mi.	.....	.....
Max. Sust.:	6	180 mi.	.....	.....
Diving: 100' (safe), Gauge calibrated to 30 meters.				
Screws: 2 (counter-rotating).				
Motors: One 600 HP.				
Batteries: 224 Type D.				
Periscope: One 5'.				
Automatic Twin Stabilizer.				
300 lb. scuttling charge.				

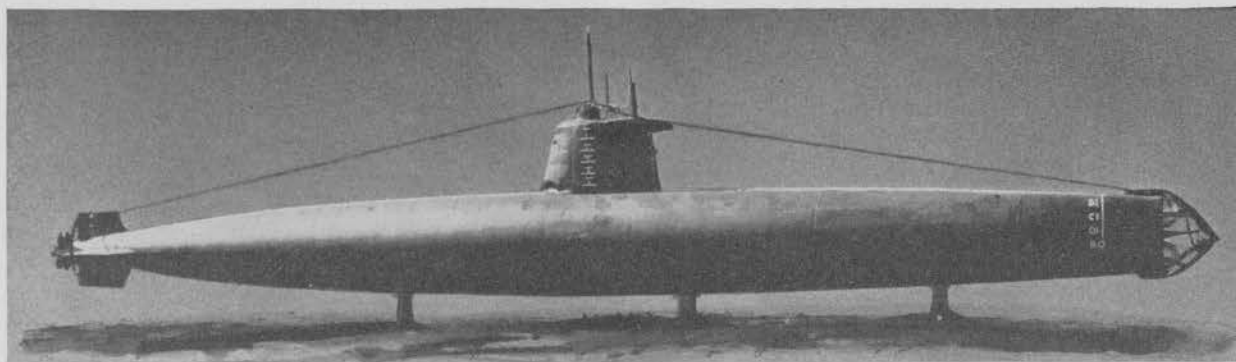
### Notes

Hull consists of five sections.

Believed carried to operational areas by units of I-16 Class and on decks of APD's.

Above statistics are for a midget submarine raised at Sydney Harbor, designated MATO Type. Two other types have been reported, KO HYOTEKI and "Pearl Harbor."

The latter, previously carried with an over-all length of 41' 0", is a variation of MATO Type, having the same length with modifications in the bow net cutters and rudder guards. KO HYOTEKI, also believed similar to MATO Type, has been reported to have an over-all length of 82' 4".





Midget submarine beached on Oahu Island—December 7, 1941.



Midget submarine on Florida Island—January 1945.



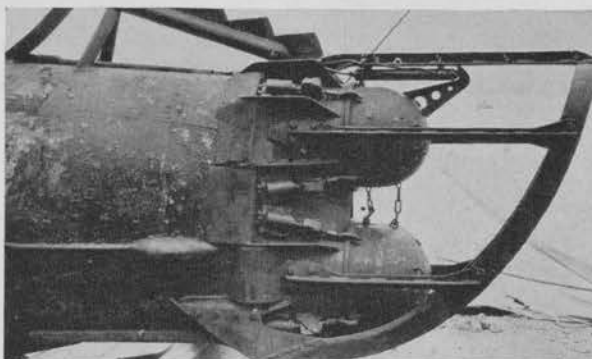
Bow on view, midget submarine.



Midget submarine beached on Oahu Island—December 7, 1941.



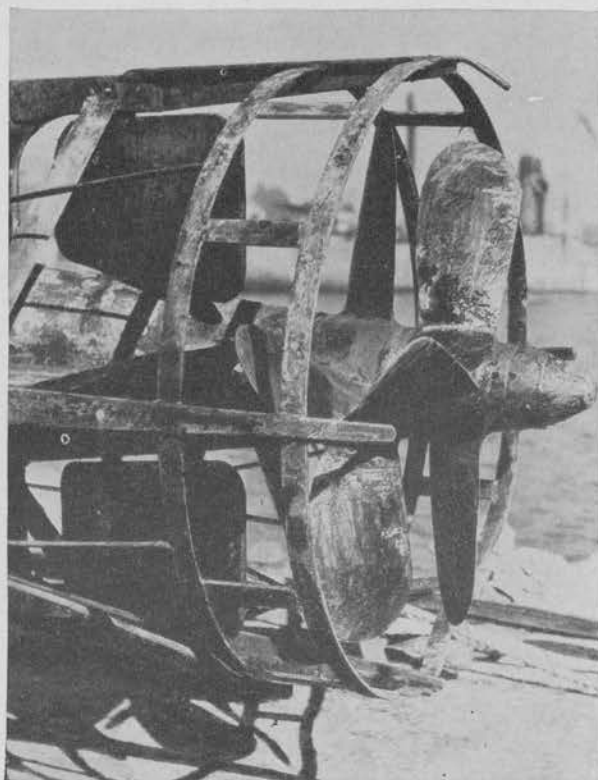
Four midget submarines, Okinawa—October 10, 1944. Type "A" Army barges at left.



Detail of net cutter and torpedo guard at bow.



Bow on view of torpedoes and guard.

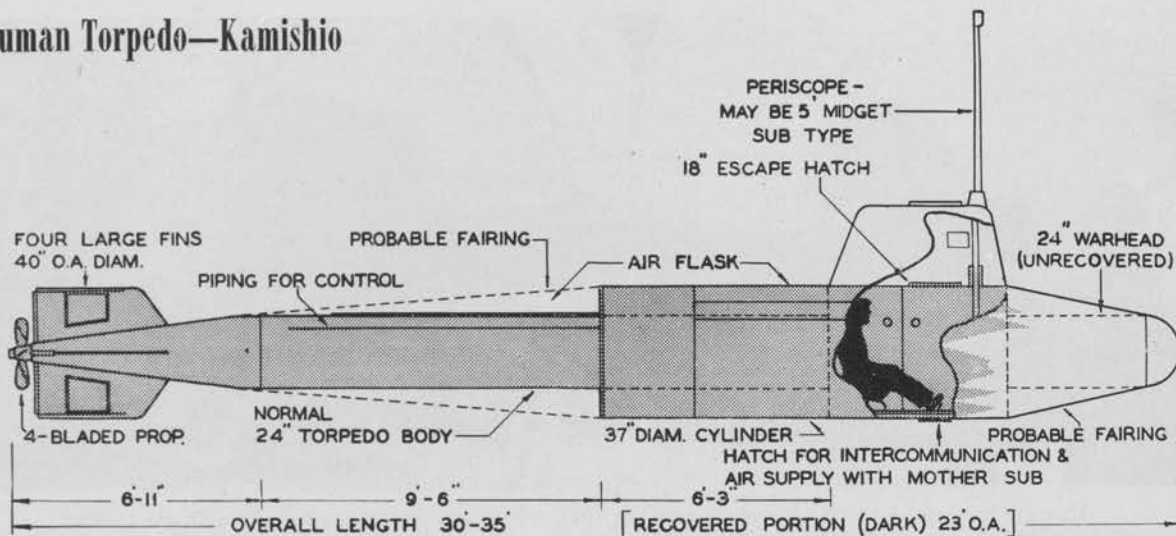


Detail of propeller and rudder guard.

## NOTES



# Human Torpedo—Kamishio



## Ulithi Type

### Dimensions

Length: 30-35' (approximately).

Diameter at Pilot's compartment: 37."

### Range

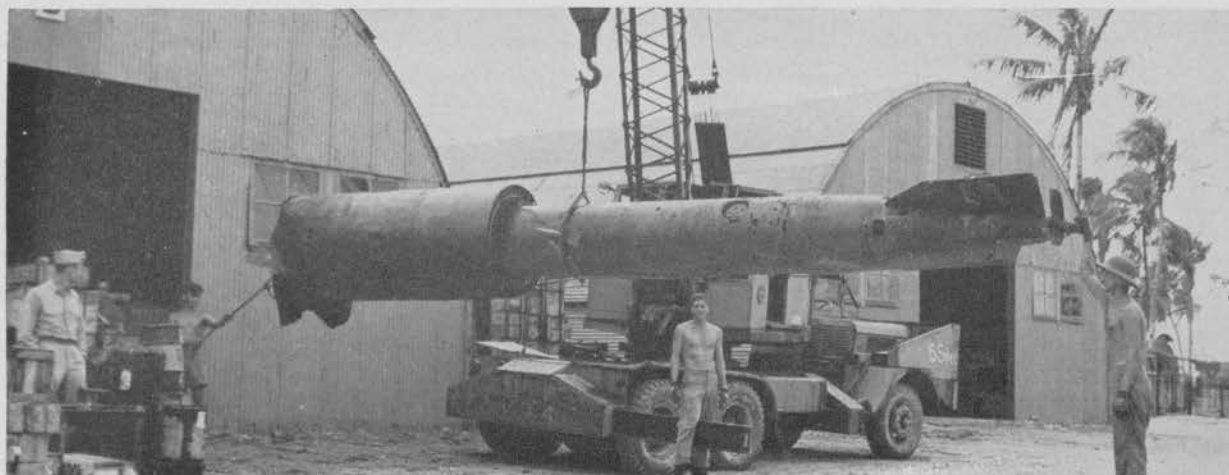
30,000 yds. @ 40 knots.

(Type 93, 24" Torpedo.)

### Notes

Believed to be a normal 24" torpedo separated at the juncture of the air-flask and warhead by a cylindrical pilot's compartment. Usual tail section has been replaced by a section of special construction with larger fins and oversize propeller. This modification in design will undoubtedly reduce the range.

May be transported to operating areas by "mother" submarine (I and RO Classes) and APD's, numbered transports.



Human Torpedo, ULITHI Type—November 1944.



Human Torpedo, ULITHI Type—November 1944. Note cylindrical pilot's compartment forward.



Human Torpedo, ULITHI Type—November 1944.



Human Torpedo, ULITHI Type—November 1944, showing access hatch.

# PF—Frigates

## SHIMUSHU Class

Class built between 1939 and 19—  
Complement—146

SHIMUSHU	MANJU
KUNAJIRI	KANJU
HACHIJO	KASADO
ETOROFU	*UKURU
OKI	*OKINAWA
TSUSHIMA	*AMAMI
FUKUE	*AGUNI
AMAKUSA	

### Dimensions

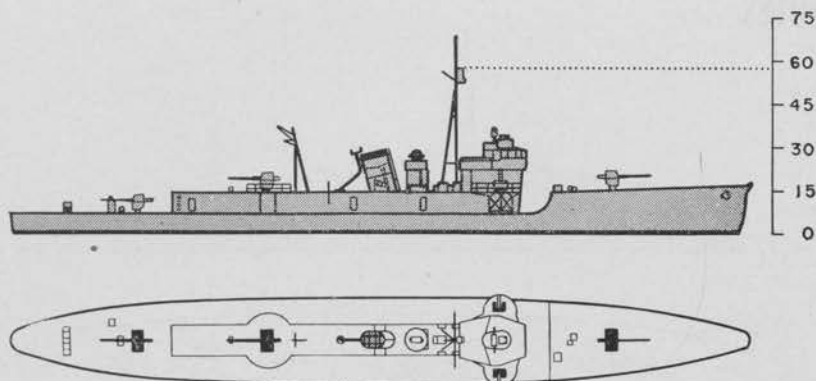
Displacement: 900 tons (stand.).  
Length: 255' 0" (oa); 245' 0" (pp).  
Beam: 30' 0".  
Draft: 9' 0" (mean); ..' .." (max.).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
3	4.7"/50	.....	45°	17,900	.....	45
4 25 mm;						
-- Mines, fitted for; Depth Charges: Yes.						

### Propulsion

	Speed (knots)	Endurance (miles)	HIP	RPM
Designed:	19.7	.....	4,500	.....
Full:	.....	.....	.....	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	.....	.....	.....
Drive: Diesel; Screws: 2.				
Fuel: .....; Capacity: ..... tons (max.).				



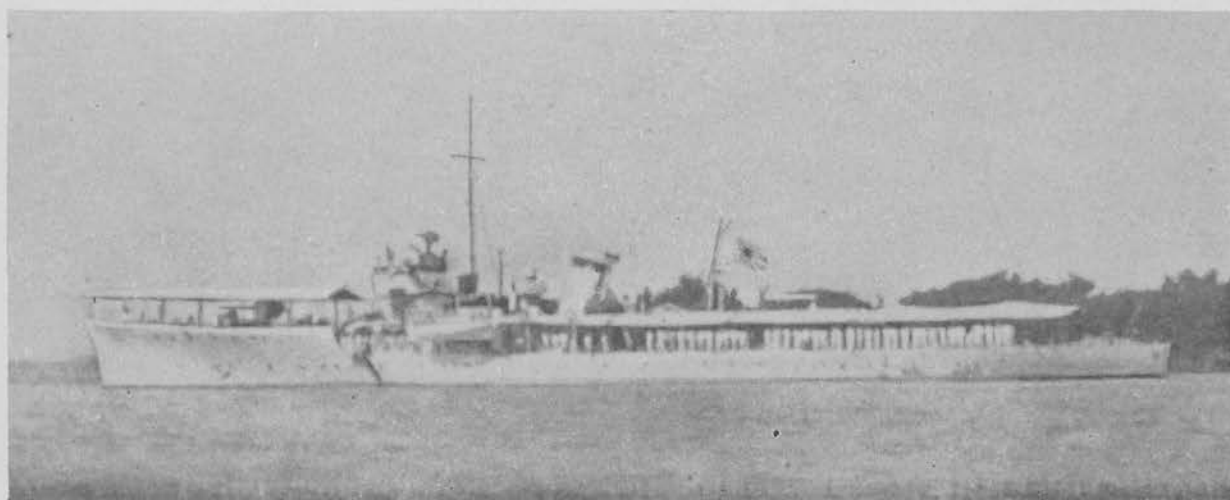
### Notes

\*Now listed under UKURU Class with following new units: SHINNAN, INAGI, HABUSHI, OJIKA, UKU, KUGA.

Formerly rated as minelayers.

### Remarks

First reported as minelayers and subsequently classified as "frigates," these vessels are more on the order of small gunboats. They appear to be somewhat smaller, one-stack derivatives of the Chinese gunboat YAT SEN, a vessel designed for both river and coastal service. Like their Chinese prototype, they have a comparatively low freeboard and a rather wide beam for their length, which should make them more stable gun platforms in smooth water than either the WAKATAKE Class of old second-class destroyers or the CHIDORI-OTORI Classes of torpedo-boats, all of which mount about the same main battery. These vessels have been employed on oceanic escort duties and may have been re-armed to meet the growing air threat.



SHIMUSHU Class (pre-war).

## NOTES

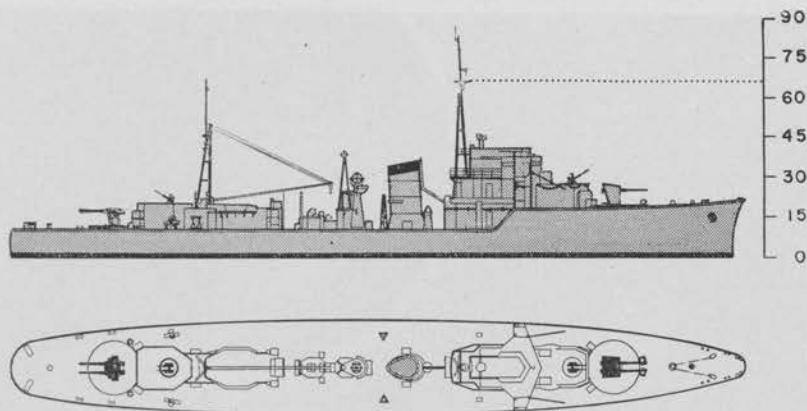
# PF—Frigates

## MIKURA Class

Class built between 1942 and 1944

Complement—149

MIKURA	YASHIRO	CHIKUBU
MIYAKE	CHIBURI	IKUNA
NOMI	SHONAN	SHISAKA
KURABASHI	DAITO	SAKITO



### Dimensions

Displacement: 1,500 tons (stand.)  
 Length: 275' 0" (oa).  
 Beam: 35' 0".  
 Draft: ...' ...'' (mean); ...' ...'' (max.).

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Cell, (ft.)	Proj. (lbs.)
*4	4.7"/45					
**2 40 mm AA (in twin mount);						
... Mines .....; Depth Charges:.....						

### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
***Designed:	16.0			
Full:				
Max. Sust.:				
Cruising:				
Economical:				
Drive: .....; Screws: 2.				
Fuel: .....; Capacity: ..... tons (max.).				

### Notes

\*Disposed in 2 twin mounts, 1 forward and 1 aft. Forward mount fitted with shield, after mount open.  
 \*\*Six AAMG of unknown caliber are mounted forward of bridge.  
 \*\*\*Speed may be around 20 knots.

### Remarks

These vessels bear a strong resemblance to the Japanese-built Siamese gunboats TAHCHIN and MAEKLONG, delivered in 1937. Salient external differences include a larger bridge, the mounting of the main battery (in twin instead of superfiring single mounts), and the shape of the stern. As two further units were at one time reported building in Japan for Siam, it is possible that these units might have been appropriated by Japan and included in this class. Their freeboard and beam should endow these vessels with good seagoing qualities, while their estimated characteristics place them in the same category with the best escort types evolved by the United States and British Navies.



MIKURA Class, Rabaul—November 2, 1943. Note heavy mainmast and boom; low, squat bridge.



MIKURA Class, Haha Jima—1944.



MIKURA Class, Rabaul—November 2, 1943. Note twin shield mount forward, open twin mount aft.



# PF—Frigates

## KAIBOKAN No. 1 Class

Built—1944-45  
Complement—131

KAIBOKAN Nos.	1	35
	3	37
	9	39
	13	41
	17	43
	19	45
	23	47
	25	49
	27	51
	29	53
	31	

### Dimensions

Displacement: 800 tons (stand.)  
Length: 220' 0" (oa).  
Beam: 28' 0".  
Draft: 11' 0".

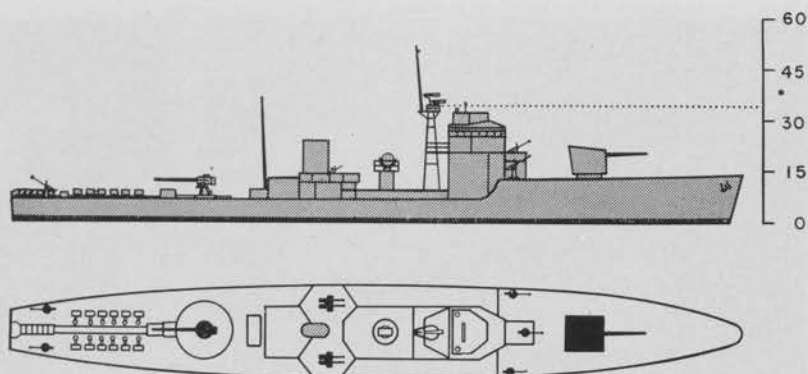
### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
2	4.7"	.....	.....	.....	.....	.....

12 Depth Charge Throwers;  
Number of Depth Charges: 300.

### Propulsion

	Speed (knots)	Endurance (miles)	HP	RPM
Designed:	14.0 (est.)	.....	.....	.....
Full:	24.0 (est.)	.....	.....	.....
Max. Sust.:	.....	.....	.....	.....
Cruising:	.....	.....	.....	.....
Economical:	.....	.....	.....	.....
Drive: Diesel; Screws: 2.				
Fuel: .....; Capacity: .....				



### Notes

Units of this class are designated by odd numbers.  
Fitted with radar, RSR, and sonar equipment.  
Hydraulic steering with single-balanced rudder.  
This class was formerly called PF-UN-2 Class.  
DE-UN-1, with an over-all length of 260' is believed to be a variation of this design.

### Remarks

The three classes, KAIBOKAN No. 1, DE-UN-1, and KAIBOKAN No. 2, appear to be the closest Japanese approach to the mass-produced American destroyer-escort (DE) and frigate (PF). Judging by the position of the stacks in these three classes, the KAIBOKAN No. 2 appears to be steam driven, while the other two classes are undoubtedly fitted with internal combustion engines. It is impossible to determine in what precise order these designs were evolved. It is possible that the KAIBOKAN No. 2 design, being steam driven, may have been the first to be built. The DE-UN-1 design is conceivably a conversion to Diesel propulsion of the KAIBOKAN No. 2.

KAIBOKAN No. 1 Class, designed for internal combustion engines, is the smallest of the three classes. This reduction in length could have been effected to facilitate rapid production. A Diesel plant requires considerably less space and would be readily adaptable to the smaller design.



KAIBOKAN No. 1 Class, French Indo-China coast—January 12, 1945.



KAIBOKAN No. 1 Class, Ormoc Bay—November 10, 1944.



Note twelve depth charge throwers on stern.



KAIBOKAN No. 1 Class under attack in China Sea—April 6, 1945. Stack has been blown off.





KAIBOKAN No. 1 Class, Matlan Bay—January 1945.



KAIBOKAN No. 1 Class in Hong Kong—January 16, 1945; KAIBOKAN No. 2 Class in upper right hand corner  
AO KAMOI left center.

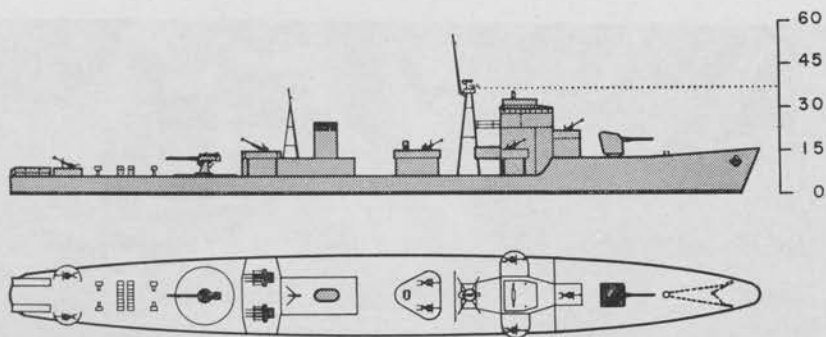
## NOTES

# DE—Destroyer Escorts

## DE-UN-1 Class

Built—1943-44

Complement—



### Dimensions

Displacement: 900 tons (stand.).

Length: 260' 0" (oa).

Beam: 29' 0".

Draft:

### Notes

May be fitted for minelaying.

### Remarks

The preceding notes on KAIBOKAN No. 1 Class describe the design relationship of this class to the "Sea Defense Vessels." DE-UN-1 appears to be purely an expanded KAIBOKAN No. 1 design, with approximately the same armament. One striking difference is the lack of the new depth charge equipment on the stern. This class carries the old depth charge gear, consisting of two racks and four depth charge throwers.

### Armament

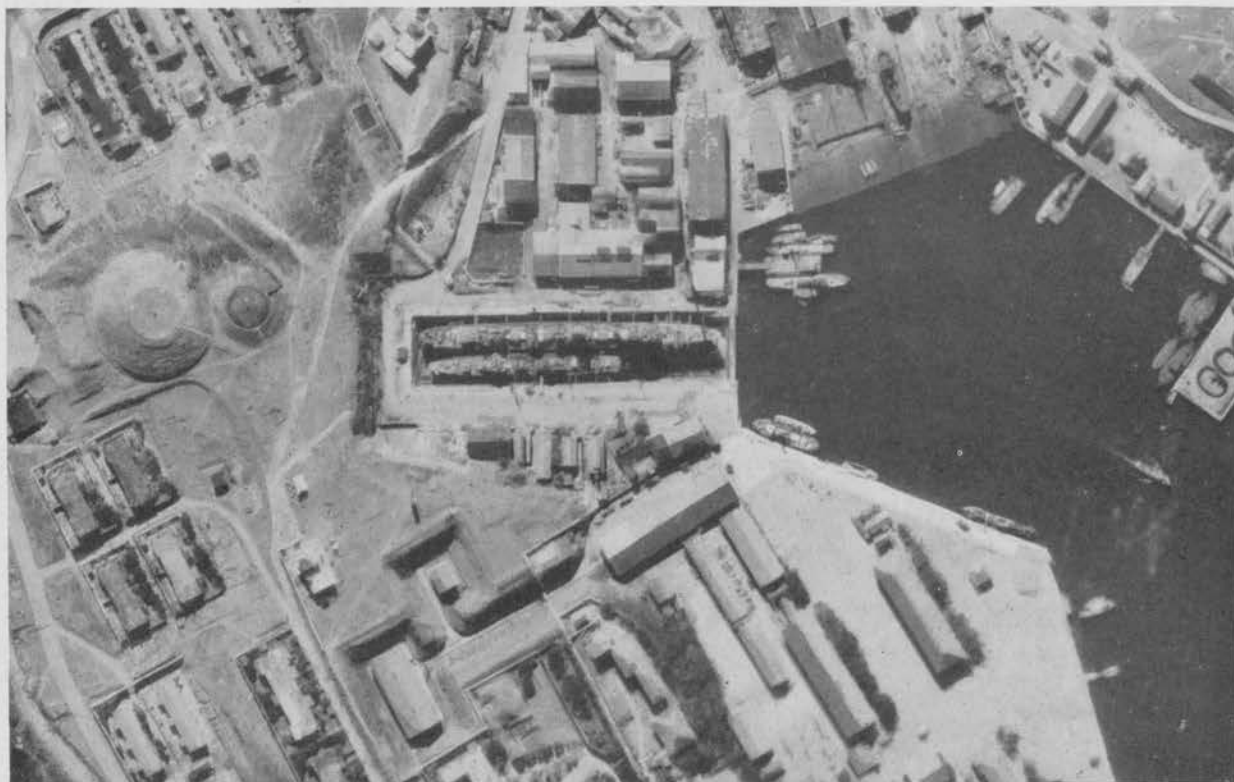
No.	Cal.	Mark	Elev.	Range (yds.)	Ceil. (ft.)	Proj. (lbs.)
2	4.7"/50	.....	.....	.....	.....	.....
6	25 mm in triple mounts.					
7	13 mm in single mounts.					
4	Depth Charge throwers.					
No. of Depth Charges (?).						



DE-UN-1. Note wide space between bridge and stack.



DE-UN-1, Tanapag Harbor—May 29, 1944.



DE-UN-1 in drydock with unit of DD FUBUKI Class, HIBIKI Group, Pescadores—October 12, 1944.

# PF—Frigates

## KAIBOKAN No. 2 Class

Built—1944-45

Complement—141

KAIBOKAN Nos.	2	26	46
	4	30	48
	6	32	50
	8	34	52
	12	36	54
	14	38	54
	16	40	56
	18	42	112
	22	44	130

### Dimensions

Displacement: 1,000 tons (stand.).

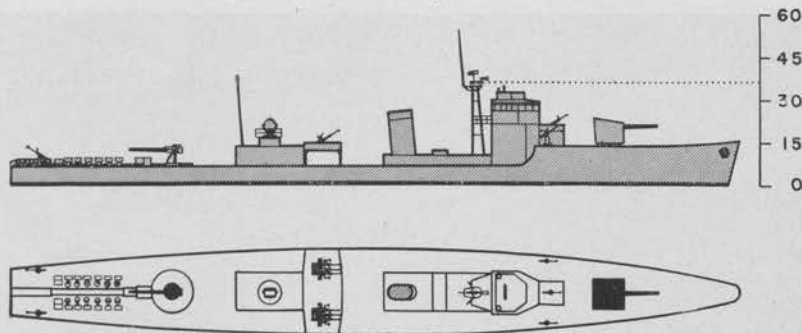
Length: 260' 0" (oa).

Beam: 31' 0".

Draft:

### Armament

No.	Cal.	Mark	Elev.	Range (yds.)	Ceiling (ft.)	Proj. (lbs.)
2	4.7"	.....	.....	.....	.....	.....
6 25 mm in triple mounts						
5 13 mm in single mounts;						
12 Depth charge throwers;						
Number of Depth charges carried: 300.						



### Propulsion

Maximum Speed: 24 knots (est.).

Steam driven.

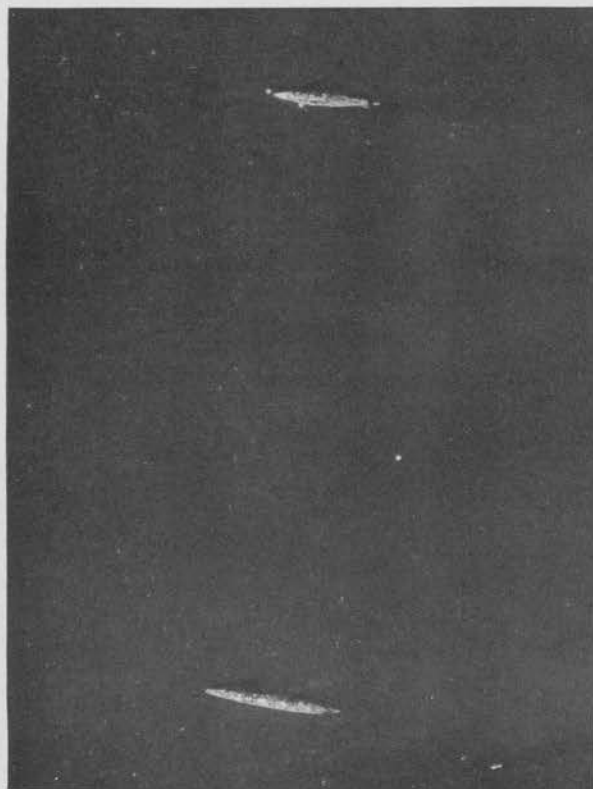
### Notes

Units of this class are designated by even numbers.

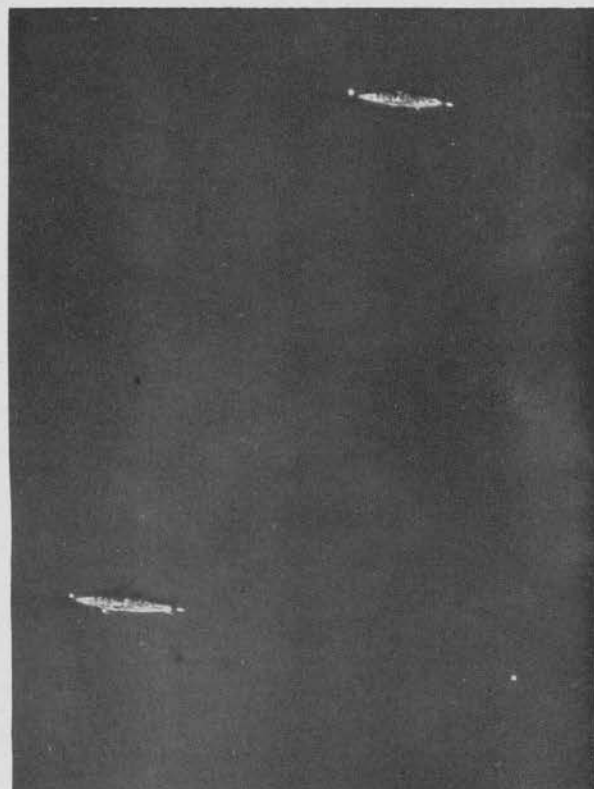
This class was formerly called PF-UN-1 Class.

### Remarks

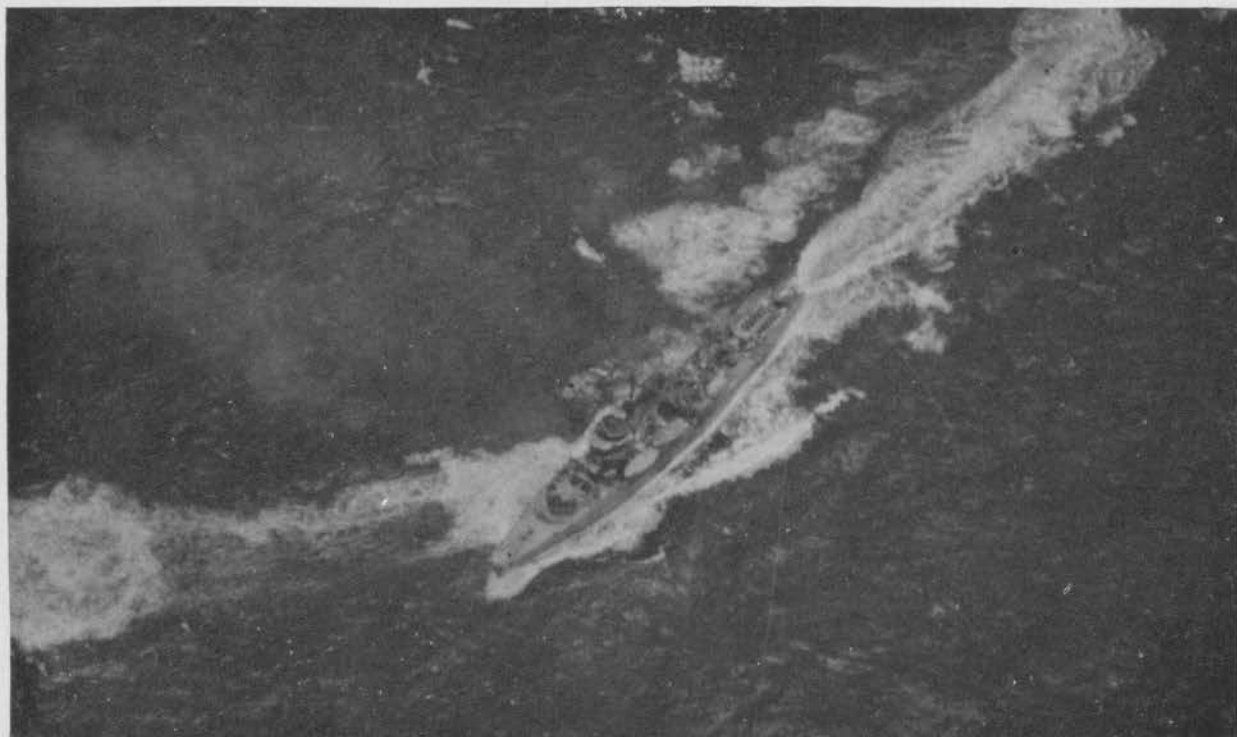
This class is the "stack forward" version of the KAIBOKANS. It is estimated that these are 40 feet longer than KAIBOKAN No. 1 Class, but mount the same armament, and are steam driven.



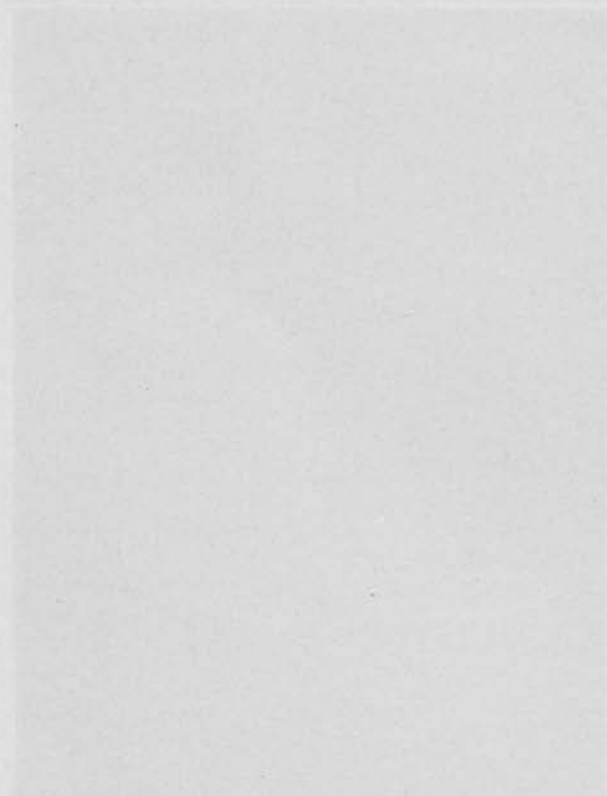
KAIBOKAN No. 2 Class at top with unit of DD MATSU Class, Hong Kong—January 16, 1945.



KAIBOKAN No. 2 Class, lower left, with KAIBOKAN No. 1 Class, Hong Kong—January 16, 1945.



KAIBOKAN No. 2 Class, Chichi Jima—August 4, 1944.



**WAR LOSS SECTION**

# WAR LOSS SECTION

Note: Where entire class or single ship is indicated as sunk, drawings and statistics, if available will be found in the Graphic and Statistical Reference to War Loss Section, page XXII.

## (A) PRINCIPAL COM- BATANT TYPES

### BATTLESHIPS

#### KONGO Class

- BB 1—KONGO
- BB 2—HIYEI
- BB 3—KIRISHIMA

#### FUSO Class

- BB 5—FUSO
- BB 6—YAMASHIRO

#### NAGATO Class

- BB 10—MUTSU

#### YAMATO Class

- BB 11—YAMATO
- BB 12—MUSASHI

### AIRCRAFT CARRIERS

- CV 1—AKAGI, EX CC
- CV 2—KAGA, EX BB
- CV 3—RYUJO

#### SORYU Class

- CV 4—SORYU
- CV 5—HIRYU

#### SHOKAKU Class

- CV 6—SHOKAKU
- CV 7—ZUIKAKU

#### HAYATAKA (JUNYO) Class

- CV 9—HITAKA (HIYO) EX IZUMO MARU
- CV 10—TAIHO

#### UNRYU Class

- CV—UNRYU
- CV—SHINANO

### AIRCRAFT CARRIERS (Small)

#### ZUIHO Class

- CVL 2—ZUIHO, EX AS, AO TAKASAKI
- CVL 3—SHOHO, EX AS, AO TSURUGISAKI

#### CHITOSE Class

- CVL 6—CHITOSE, EX CVS-3
- CVL 7—CHYODA, EX CVS-4

### AIRCRAFT CARRIERS (Escort)

#### OTAKA (TAIYO) Class

- CVE 1—OTAKA (TAIYO), EX KASUGA MARU
- CVE 2—UNYO, EX YAWATA MARU
- CVE 3—CHUYO, EX NITTA MARU
- CVE 5—JINYO, EX SCHARNHORST

### SEAPLANE CARRIERS

#### MIZUHO Class

- CVS 5—MIZUHO
- CVS 6—NISSHIN
- CVS 7—AKITSUSHIMA

### HEAVY CRUISERS

#### FURUTAKA Class

- CA 1—FURUTAKA
- CA 2—KAKO

#### AOBA Class

- CA 4—KINUGASA

#### NACHI Class

- CA 5—NACHI

#### ATAGO Class

- CA 9—ATAGO
- CA 11—CHOKAI
- CA 12—MAYA

#### MOGAMI Class

- CA 13—MOGAMI
- CA 14—MIKUMA
- CA 15—SUZUYA
- CA 16—KUMANO

#### TONE Class

- CA 18—CHIKUMA

### LIGHT CRUISERS

#### TENRYU Class

- CL 1—TENRYU
- CL 2—TATSUTA

#### KUMA-NATORI Class

- CL 3—KUMA
- CL 4—TAMA
- CL 5—KITAGAMI
- CL 6—KISO

### KUMA-NATORI Class (Cont.)

- CL 7—OI
- CL 8—NATORI
- CL 9—NAGARA
- CL 10—KINU
- CL 11—YURA
- CL 12—ISUZU
- CL 13—ABUKUMA
- CL 14—YUBARI

#### SENDAI Class

- CL 15—SENDAI
- CL 16—JINTSU
- CL 17—NAKA

#### AGANO Class

- CL 21—AGANO
- CL 23—NOSHIRO
- One additional unit sunk April 1945.

### DESTROYERS

#### MINEKAZE Class

- DD 1—MINEKAZE
- DD 2—OKIKAZE
- DD 3—SHIMAKAZE (Removed from list)
- DD 5—HAKAZE
- DD 7—AKIKAZE
- DD 9—HOKAZE
- DD 11—TACHIKAZE
- DD 13—NAMIKAZE
- DD 14—NUMAKAZE

#### KAMIKAZE Class

- DD 17—ASAKAZE
- DD 19—MATSUKAZE
- DD 20—ASANAGI
- DD 22—OITE
- DD 23—HAYATE
- DD 24—YUNAGI

#### MUTSUKI Class

- DD 25—MUTSUKI
- DD 26—SATSUKI
- DD 27—KISARAGI
- DD 28—YAYOI
- DD 29—UZUKI
- DD 30—FUMITSUKI
- DD 31—KIKITSUKI
- DD 32—MINATSUKI
- DD 33—NAGATSUKI
- DD 34—MIKATSUKI
- DD 35—MOCHITSUKI
- DD 36—YUZUKI

• Denotes single ship, not unit of class.



# WAR LOSS SECTION

## DESTROYERS (Cont.)

### FUBUKI Class

DD 37—FUBUKI  
DD 38—SHINONOME  
DD 39—SHIRAYUKI  
DD 40—USUGUMO  
DD 41—SHIRAKUMO  
DD 42—ISONAMI  
DD 43—HATSUYUKI  
DD 44—MURAKUMO  
DD 45—AMAGIRI  
DD 46—SHIKINAMI  
DD 47—AYANAMI  
DD 48—ASAGIRI  
DD 49—URANAMI  
DD 50—YUGIRI  
DD 51—SAGIRI  
DD 53—OBORO  
DD 54—AKEBONO  
DD 55—SAZANAMI  
DD 57—IKAZUCHI  
DD 58—INAZUMA  
DD 59—AKATSUKI

### HATSUHARU-SHIGURE Class

DD 62—NENOHI  
DD 63—WAKABA  
DD 64—ARIAKE  
DD 65—YUGURE  
DD 67—SHIRATSUYU  
DD 68—MURASAME  
DD 69—YUDACHI  
DD 70—HARUSAME  
DD 71—SAMIDARE  
DD 72—YAMAKAZE  
DD 73—SUZUKAZE  
DD 74—KAWAKAZE  
DD 75—UMIKAZE

### ASASHIO-KAGERO Class

DD 76—ASASHIO  
DD 77—ARASHIO  
DD 78—OSHIO  
DD 79—MICHISHIO  
DD 80—ASAGUMO  
DD 81—YAMAGUMO  
DD 82—MINEGUMO  
DD 83—NATSUGUMO  
DD 85—ARARE  
DD 86—KAGERO  
DD 88—KUROSHIO  
DD 89—OYASHIO  
DD 90—HATSUKAZE  
DD 91—NATSUSHIO  
DD 93—HAYASHIO  
DD 94—ISOKAZE  
DD 96—TOKITSUKAZE  
DD 97—URAKAZE

### ASASHIO-KAGEO Class (Cont.)

DD 98—ARASHI  
DD 99—HAGIKAZE  
DD 100—NOWAKI  
DD 102—TANIKAZE  
DD 103—MAIKAZE  
DD 104—YUGUMO  
DD 105—AKIGUMO  
DD 106—MAKIGUMO  
DD 107—KAZEGUMO

### TERUTSUKI Class

DD 108—TERUTSUKI  
DD 109—AKITSUKI  
DD 110—SUZUTSUKI  
DD 111—SHIMOTSUKI  
DD 112—HATSUTSUKI  
DD 113—WAKATSUKI  
DD 114—NIITSUKI  
DD 115—FUYUTSUKI

### TAKANAMI Class

DD 116—TAKANAMI  
DD 117—MAKINAMI  
DD 118—NAGANAMI  
DD 119—SUZUNAMI  
DD 120—ONAMI  
DD 121—FUJINAMI  
DD 122—KIYONAMI  
DD 123—TAMANAMI  
DD 124—HAYANAMI  
DD 125—HAMANAMI  
DD 126—OKINAMI  
DD 127—KISHINAMI  
\*\*DD—KIYOSHIMO  
\*\*DD—AKISHIMO  
\*\*DD—HAYASHIMO

## ESCORT DESTROYERS

### MATSU Class

DD—MATSU  
DD—KUWA

### MOMO Class

\*\*ODD 1—MOMO  
\*\*ODD 2—HINOKI  
\*\*ODD 3—YANAGI

### KURI-WAKATAKE Class

\*\*ODD 4—NASHI  
\*\*ODD 5—TAKE  
\*\*ODD 6—KAYA  
\*\*ODD 8—NIRE  
\*\*ODD 9—AOI  
\*\*ODD 10—KIKU  
\*\*ODD 13—HAGI  
\*\*ODD 14—SUZUKI

### KURI-WAKATAKE Class (Cont.)

\*\*ODD 15—FUJI  
\*\*ODD 16—ASHI  
\*\*ODD 17—TSUTA  
\*\*ODD 19—HISHI  
\*\*ODD 20—TADE  
\*\*ODD 21—YOMOGI  
ODD 23—WAKATAKE  
ODD 24—KURETAKE  
ODD 25—SANAYE  
ODD 27—FUYO  
ODD 28—KARUKAYA  
\*\*ODD 29—YUGAO

## TORPEDO BOATS

### CHIDORI Class

TB 2—MANAZURU

### OTORI Class

TB 5—OTORI  
TB 7—HIYODORI  
\*\*TB 8—KASASAGI  
TB 9—HATO  
TB 10—SAGI

## SUBMARINE CRUISERS (SS)

### I-1 Class

I-1 I-3  
I-2 I-4

### I-5 Class

I-7

### I-9 Class

I-9 I-11

### I-15 Class

I-15 I-28  
I-16 I-30  
I-17 I-31  
I-18 I-33  
I-19 I-34  
I-20 I-35  
I-21 I-39  
I-22 I-40  
I-23 I-42  
I-24 I-43  
I-25

## FLEET SUBMARINES (SS)

• I-151

• I-152

\*Variation in main armament differentiates these units from TAKANAMI Class.

\*\*Stricken from list.

# WAR LOSS SECTION

## FLEET SUBMARINES (SS) (Continued.)

I-153 Class  
I-160

I-161 Class  
I-164

I-165 Class  
I-166

I-168 Class  
I-168  
I-170  
I-171

I-176 Class  
I-176  
I-178  
I-181

I-167

I-172  
I-173

I-182  
I-183

## SUBMARINES, Coastal Type

(under 1,000 tons) (OSS)

RO-26 Class  
\*\*RO 26  
\*\*RO 27  
\*\*RO 28

RO-51 Class  
\*\*RO 51  
\*\*RO 52  
\*\*RO 53

RO-60 Class  
RO 60  
RO 61

RO-33 Class  
RO 33  
RO 34

RO-35 Class  
RO 35  
RO 37  
RO 38

RO-100 Class  
RO 100  
RO 101  
RO 102  
RO 103  
RO 104  
RO 105

\*\*RO 54  
\*\*RO 55  
\*\*RO 56

RO 65  
RO 66

RO 39  
RO 44

RO 106  
RO 107  
RO 108  
RO 110  
RO 116

## SUBMARINE MINE- LAYERS

RO-29 Class  
\*\*RO 29  
\*\*RO 30  
\*\*RO 31  
\*\*RO 32

I-121 Class  
I-123  
I-124

## (B) MINOR COMBAT- ANT TYPES

## FRIGATES (PF)

SHIMUSHU Class  
ISHIGAKI  
MATSUWA  
SADO  
MUTSURE  
WAKAMIYA  
IKI  
HIRADO

MIKURA Class  
AWAJI  
KUSAKAKI  
HIBURI

KAIBOKAN NO. 1 Class  
The number of units of this class  
sunk is undetermined.

KAIBOKAN NO. 2 Class  
The number of units of this class  
sunk is undetermined.

## TRAINING CRUISERS

KATORI Class  
CL(T) 1-KATORI  
CL(T) 3-KASHII

## AUXILIARY CRUISERS

• XCL 1—NOSHIRO MARU

KIYOSUMI MARU Class  
XCL 2—KIYOSUMI MARU  
XCL 3—KONGO MARU  
• XCL 4—UKISHIMA MARU

## BANGKOK MARU Class

XCL 5—BANGKOK MARU  
XCL 6—SAIGON MARU

## AKAGI MARU Class

XCL 7—AKAGI MARU  
XCL 8—ASAKA MARU  
XCL 9—AWATA MARU

## AIKOKU MARU Class

XCL 10—AIKOKU MARU  
XCL 11—GOKOKU MARU  
XCL 12—HOKOKU MARU  
• XCL 13—KINRYU MARU

## MINELAYERS (Large)

• CM 3—SHIRATAKA  
• CM 4—ITSUKUSHIMA  
• CM 5—YAEYAMA  
• CM 6—OKINOSHIMA

## HATSUTAKA Class

CM 8—AOTAKA  
• CM 10—TSUGARU

## CONVERTED MINE- LAYERS

• XCM 1—TENYO MARU  
• XCM 7—TAKACHIHO MARU

## MINESWEEPERS (Fleet Sweepers)

NO. 1 Class  
AM No. 6

NO. 13 Class  
AM No. 16  
AM No. 18

NO. 7 Class  
AM No. 7  
AM No. 9  
AM No. 10

NO. 19 Class  
AM No. 25  
AM No. 26  
AM No. 28

## GUNBOATS

HASHIDATE Class  
PG 6—HASHIDATE

\*\*Scrapped.

• Denotes single ship, not unit of class.

# WAR LOSS SECTION

## SUBMARINE CHASERS (Large)

PC-1 Class  
PC 11

### PC-13 Class

PC 13  
PC 16  
PC 22  
PC 24  
PC 25  
PC 27  
PC 29  
PC 32  
PC 34

PC 38  
PC 39  
PC 40  
PC 45  
PC 48  
PC 53  
PC 54  
PC 55  
PC 116

## SUBMARINE CHASERS (Small)

### SCS-1 Class

SCS 1  
SCS 2  
SCS 10  
SCS 14  
SCS 15  
SCS 18  
SCS 19  
SCS 21  
SCS 22  
SCS 23  
SCS 25  
SCS 26  
SCS 28  
SCS 30  
SCS 31

SCS 33  
SCS 35  
SCS 38  
SCS 39  
SCS 40  
SCS 46  
SCS 47  
SCS 49  
SCS 53  
SCS 54  
SCS 56  
SCS 62  
SCS 95  
SCS 118  
SCS 165

### SCS-251 Class

SCS 252  
SCS 253

## MOTOR TORPEDO BOATS

### PT-1 Class

PT 1  
PT 2  
PT 3  
PT 5  
PT 6

## RIVER GUNBOATS

• PR-12 KARATSU (EX USS LUZON)

## (C) AUXILIARY TYPES

### CONVERTED SEA- PLANE TENDERS

#### KAMIKAWA MARU Class

XAV 1—KAMIKAWA MARU  
XAV 4—KIYOKAWA MARU  
• XAV 5—SANYO MARU  
• XAV 6—YASUKAWA MARU

#### SANUKI MARU Class

XAV 9—SAGARA MARU

### AIRCRAFT TRANS- PORTS

• XAPV 1—GOSHU MARU

#### FUJIKAWA MARU Class

XAPV 2—FUJIKAWA MARU  
XAPV 3—MOGAMIGAWA MARU

#### KAMOGAWA MARU Class

XAPV 5—KEIYO MARU  
• XAPV 6—LYONS MARU  
• XAPV 7—KATSURAGI MARU  
• XAPV 8—NAGOYA MARU  
• XAPV 9—NARUTO MARU  
• XAPV 10—TAKASAKI MARU

### SUBMARINE TENDERS

#### JINGEI Class

AS 2—JINGEI

### CONVERTED SUB- MARINE TENDERS

• XAS 2—YASUKUNI MARU

#### HIE MARU Class

XAS 3—HIE MARU  
XAS 4—HEIAN MARU  
• XAS 5—RIO DE JANEIRO MARU  
• XAS 6—ARATAMA MARU  
• XAS 7—URAKAMI MARU  
• XAS 9—SOYO MARU

### REPAIR SHIPS

• AR 1—ASAHI, EX OBB  
• AR 2—AKASHI

### SALVAGE VESSELS

• ARS 5—NAGAURA

## CONVERTED SALVAGE VESSELS

• XARS 2—KASAGI MARU  
• XARS 3—YAMABIKO MARU  
• XARS 4—HAKKAI MARU  
• XARS 7—YUSHIO

## FUEL OIL TANKERS

### SHIRETOKO Class

AO 3—ERIMO  
AO 4—SATA  
AO 5—TSURUMI  
AO 6—SHIRIYA  
AO 7—IRO

### ONDO Class

AO 10—NARUTO

### KINESAKI Class

AO—ASHIZURI  
AO—OSE

### KAZAHAYA Class

AO—HAYASUI  
AO—KAZAHAYA  
• AO—SHIOYA

## PROVISION STORESHIPS

• AF 1—MAMIYA  
• AF 3—IRAKO

### MUROTO Class

AF 5—NOJIMA

## LANDING CRAFT CARRIERS

• LSV 1—RYUJO (SINSYU MARU)  
• LSV 2—AKITSU MARU

## SURVEYING SHIPS

• AGS 3—TSUKUSHI  
• AGS 4—SOYA  
• AGS—ASTROLABE (French)

## PATROL VESSELS

PATROL BOAT NO. 1 Class  
PATROL BOAT NO. 7

### PATROL BOAT NO. 31 Class

PATROL BOAT NO. 31  
PATROL BOAT NO. 39  
• PATROL BOAT NO. 101

• Denotes single ship, not unit of class.

## WAR LOSS SECTION

### TRANSPORTS—APD

The number of units of this class which have been sunk is undetermined.

### AUXILIARY TRANSPORTS—LSM

The number of units of this class which have been sunk is undetermined.

### ATTACK TRANSPORTS—APA

TAKATSU MARU  
MAYASAN MARU

(D) DISTRICT CRAFT  
COASTAL MINELAYERS,  
called "SPECIAL MINELAYERS" by the Japanese

### CMc NO. 1 Class

CMc No. 1  
CMc No. 2  
CMc No. 4

### SMALL MINELAYERS

(Japanese designation)

#### TSUBAME Class

CMc 13—KAMOME

#### NATSUSHIMA Class

CMc 14—NATSUSHIMA  
CMc 15—NASAMI  
CMc 16—SARUSHIMA

#### SOKUTEN Class

CMc 17—SOKUTEN  
CMc 18—SHIRAKAMI  
CMc 21—UKISHIMA  
CMc 25—MOROSHIMA  
CMc 26—HIRASHIMA  
CMc 30—BOKO

### COASTAL MINE-SWEEPERS

called "SPECIAL MINE-SWEEPERS" by the Japanese

#### AMc NO. 1 Class

AMc No. 1

AMc No. 2

### (F) AVAILABLE NON-JAPANESE WARSHIPS

### PRINCIPAL COMBAT-ANT TYPES

### LIGHT CRUISERS

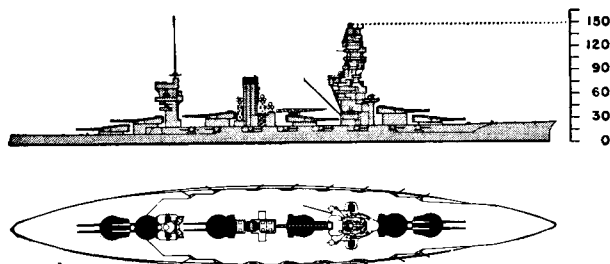
- CL LAMOTTE-PICQUET, EX FRENCH DUGUAY-THOUIN Class.

●Denotes single ship, not unit of class.

# STATISTICAL AND GRAPHIC REFERENCE TO WAR LOSS SECTION

Note: For complete list of war losses see "War Loss Section," Page XVII

## BB—FUSO Class



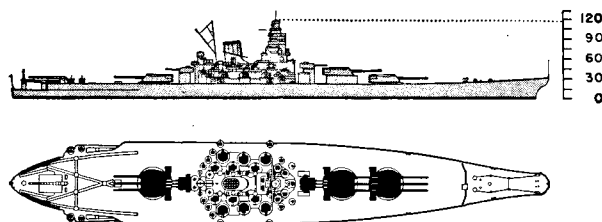
Displacement: 30,000 tons (stand.).

Length: 673' 0'' (oa).

Beam: 94' 0'' (hull without bulges).

Main Battery: 12 14''/45.

## BB—YAMATO Class



Displacement: 45,000 tons (stand.).

Length: 870' 0'' (oa).

Beam: 125' 0''.

Main Battery: 9 16''.

## cv 3—RYUJO

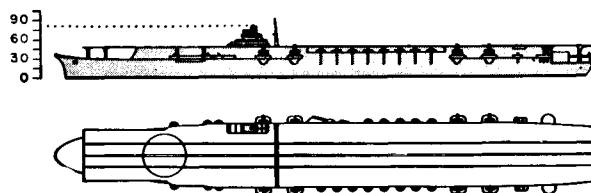
Displacement: 7,100 tons (stand.).

Length: 553' 8'' (oa).

Beam: 60' 8''.

Main Battery: 10 5'' AA (twin mounts).

## cv—SHOKAKU Class



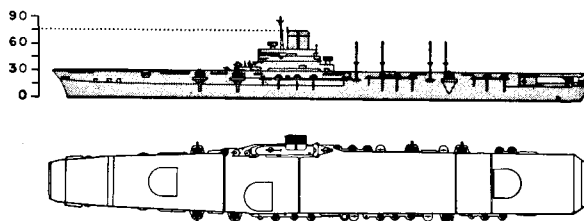
Displacement: 29,800 tons (stand.).

Length: 826' 0'' (oa).

Beam: 93' 0'' (hull) Flight deck width: 100' 0''.

Main Battery: 16 5''/40 (twin mounts) D. P.

## cv 10—TAIHO



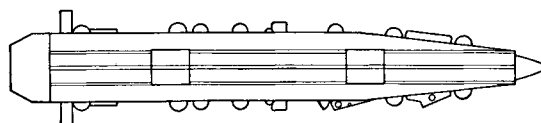
Displacement: 35,000 tons (stand.) (estimated).

Length: 860' 0'' (oa).

Flight deck width: 100' 0''.

Main Armament: 12 5''/40 (in twin mounts) D. P.

## cvL—CHITOSE Class



Displacement: 12,000 tons (stand.).

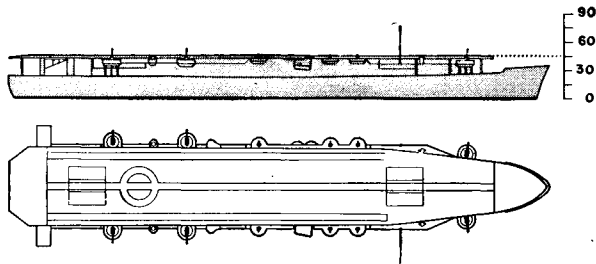
Length: 628' 0'' (oa).

Beam: 80' 0'' (flight deck).

Main Armament: 6 5''/40 (before conversion)

# WAR LOSS SECTION—Graphic

## CVE—OTAKA (TAIYO) Class

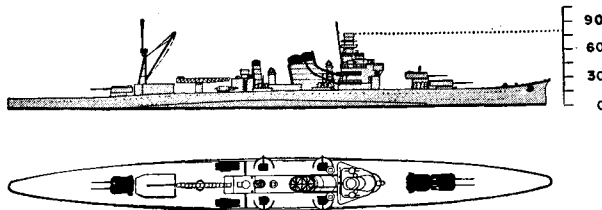


Displacement: 20,000 tons (stand.).  
Length: 590' 0'' (oa); 559' 0'' (pp).  
Beam: 74' 0'' (hull); Flight deck width: 82' 0''.  
Main Armament: 6 5''/40.

## CVS—MIZUHO Class

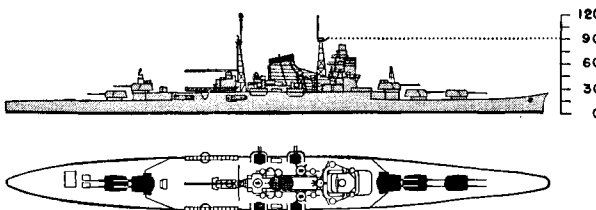
Displacement: 9,000 tons (stand.).  
Length: 597' 6'' (oa).  
Beam: 61' 8''.  
Main Armament: 4 5''/50 AA (twin mounts).

## CA—FURUTAKA Class



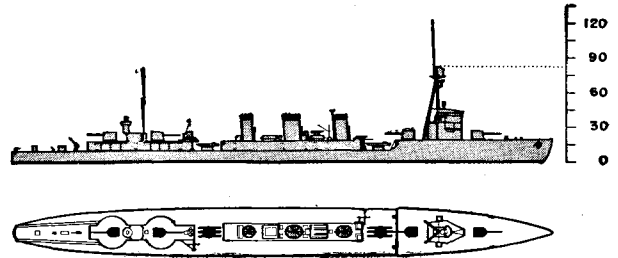
Displacement: 9,000 tons (stand.).  
Length: 595' 0'' (oa).  
Beam: 50' 9''.  
Main Battery: 6 8''/50 (twin mounts).

## CA—MOGAMI Class



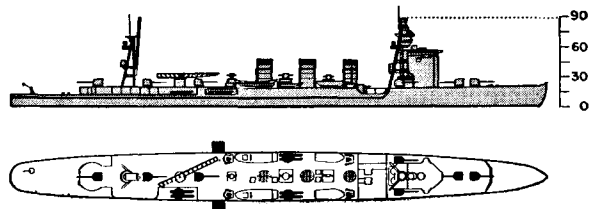
Displacement: 14,000 tons (stand.).  
Length: 660' 0'' (oa).  
Beam: 65' 0''.  
Main Armament: 10 8''/50 (twin mounts).  
MOGAMI reported to have had aircraft stowage deck fitted abaft mainmast.

## CL—TENRYU Class



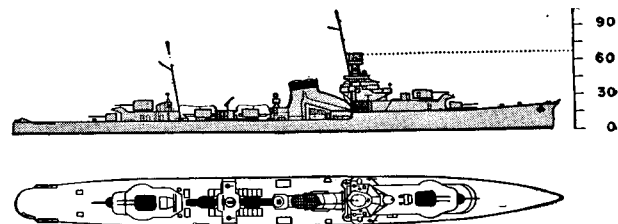
Displacement: 3,230 tons (stand.).  
Length: 468' 0'' (oa).  
Beam: 40' 9''.  
Main Armament: 4 5.5''/50.

## CL—KUMA-NATORI Class



Displacement: 5,170 tons (stand.).  
Length: 535' 0'' (oa); 529' 0'' (wl).  
Beam: 47' 3'' (hull).  
Main Armament: 7 5.5''/50.

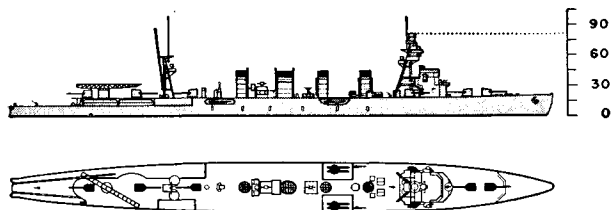
## CL 14—YUBARI



Displacement: 2,890 tons (stand.).  
Length: 463' 0'' (oa); 459' 0'' (wl).  
Beam: 39' 6''.  
Main Armament: 6 5.5''/50.

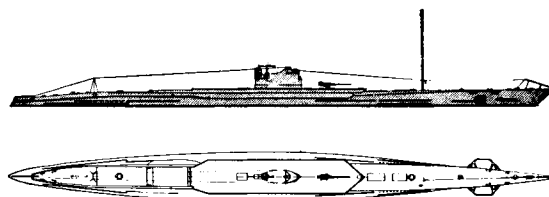
# WAR LOSS SECTION—Graphic

## CL—SENDAI Class



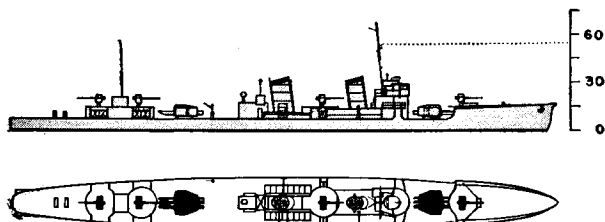
Displacement: 5,195 tons (stand.).  
 Length: 535' 0" (oa); 529' 0" (wl).  
 Beam: 47' 3".  
 Main Armament: 7 5.5"/50.

## ss I-1 Class



Displacement: 1,955 tons (stand.) 2,480 tons (submgd.).  
 Length: 320' 0" (oa).  
 Beam: 29' 7" (max.).  
 Main Armament: 1 5"/50.

## DD—MUTSUKI Class



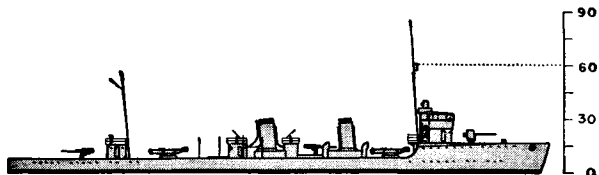
Displacement: 1,315 tons (stand.).  
 Length: 336' 6" (oa); 320' 0" (pp).  
 Beam: 30' 0".  
 Main Armament: 4 4.7"/50.

## SS I-151



Displacement: 1,390 tons (stand.); 2,000 tons (submgd.).  
 Length: 300' 0" (oa)  
 Beam: 28' 11"  
 Main Armament: 1 4.7"/40

## ODD—MOMO Class



Displacement: 755 tons (stand.).  
 Length: 287' 0" (oa); 282' 0" (wl).  
 Beam: 25' 4".  
 Main Armament: 3 4.7"/45.

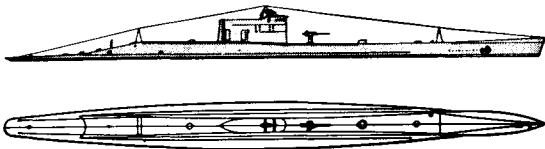
## SS I-152



Displacement: 1,390 tons (stand.); 2,000 tons (submgd.).  
 Length: 320' 11" (oa)  
 Beam: 25' 11"  
 Main Armament: 1 4.7"/40

# WAR LOSS SECTION—Graphic

## OSS RO-26 Class SM RO-29 Class



Displacement: 655-746 tons (stand.); 1,000 tons (submgd.)

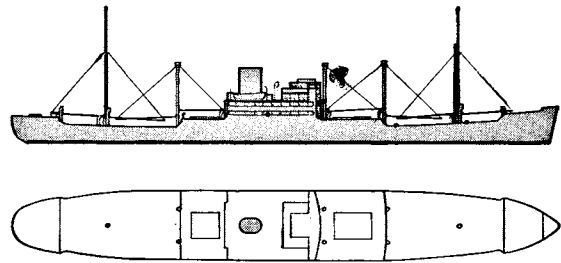
Length: 243' 7" (oa)

Beam: 20' 9"

Main Armament: 1 4.7"/40

All units of these two classes have been scrapped.

## XCL 1—NOSHIRO MARU



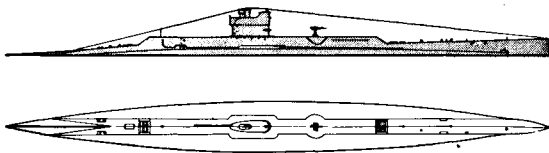
Tonnage: 7,189 tons (gross)

Length: 470' 0" (oa); 450' 0" (pp)

Beam: 62' 3"

Main Armament: 2 5.5"/50

## OSS RO-51 Class



Displacement: 893 tons (stand.); 1,082 tons (submgd.)

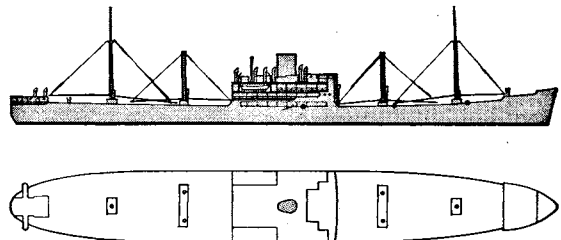
Length: 232' 0" (oa)

Beam: 23' 6"

Main Armament: 1 3"/40

All units of this class have been scrapped.

## XCL—KIYOSUMI MARU Class



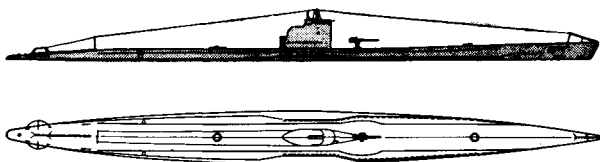
Tonnage: 8,613 tons (gross)

Length: 477' 0" (oa); 453' 0" (pp)

Beam: 61' 0"

Main Armament: 2 5.5"/50 (provisional)

## OS RO-33 Class



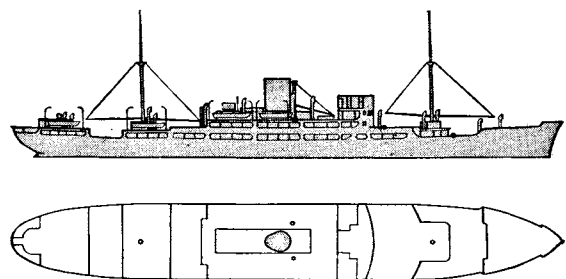
Displacement: 700 tons (stand.)

Length: 248' 0" (oa)

Beam: 22' 0"

Main Armament: 1 3"/40

## XCL 4—UKISHIMA MARU



Tonnage: 4,730 tons (gross)

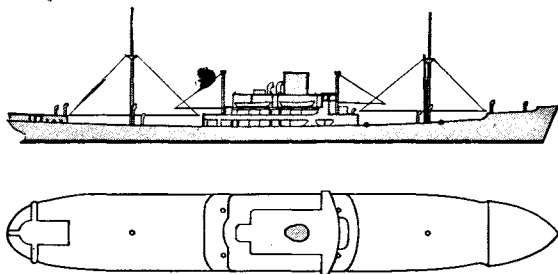
Length: 355' 8" (pp)

Beam: 51' 6"



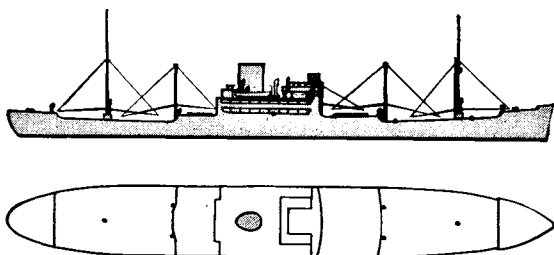
# WAR LOSS SECTION—Graphic

## XCL—BANGKOK MARU Class



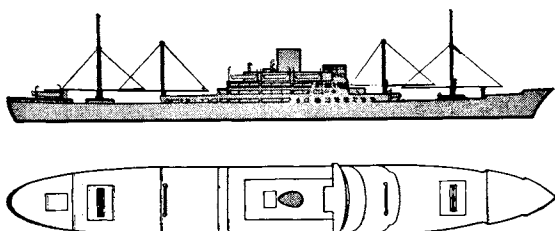
Tonnage: 5,350 tons (gross)  
Length: 376' 3" (oa); 363' 4" (pp)  
Beam: 55' 10"

## XCL—AKAGI MARU Class



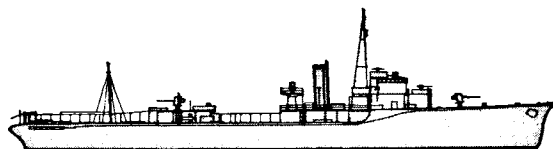
Tonnage: 7,398 tons (gross)  
Length: 482' 4" (oa); 462' 7" (pp)  
Beam: 62' 4"  
Main Armament: 2 5.5"/50

## XCL—AIKOKU MARU CLASS



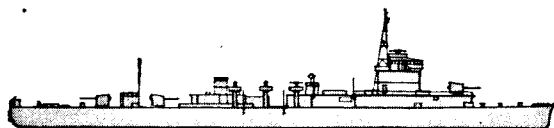
Tonnage: 10,500 tons (gross)  
Length: 527' 0" (oa); 498' 0" (pp)  
Beam: 66' 4"  
Main Armament: 2 5.5"/50

## CM 3—SHIRATAKA



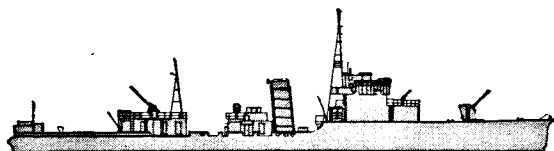
Displacement: 1,345 tons (stand.)  
Length: 259' 10" (pp)  
Beam: 37' 9"  
Main Armament: 3 4.7"/50

## CM 4—ITSUKUSHIMA



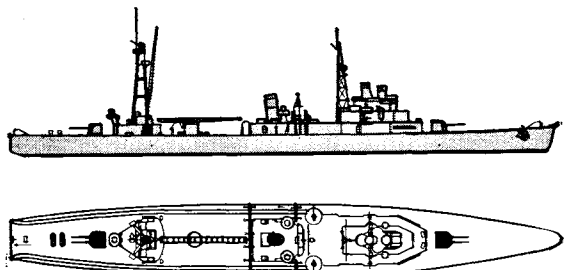
Displacement: 1,970 tons (stand.)  
Length: 339' 0" (oa); 329' 0" (wl)  
Beam: 42' 0"  
Main Armament: 3 5.5"/50

## CM 5—YAEYAMA



Displacement: 1,135 tons (stand.)  
Length: 280' 6" (wl)  
Beam: 34' 8"  
Main Armament: 2 4.7"/50

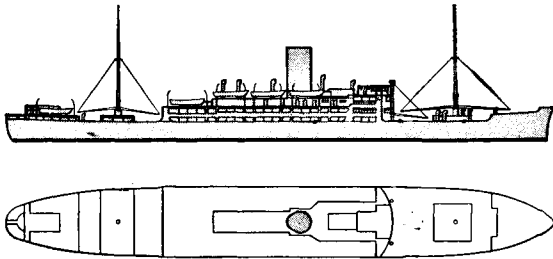
## CM 6—OKINOSHIMA



Displacement: 4,400 tons  
Length: 405' 0" (oa); 386' 6" (wl)  
Beam: 51' 6"  
Main Armament: 4 5.5"/50

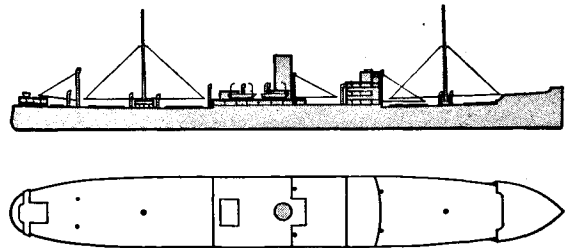
# WAR LOSS SECTION—Graphic

**XCM 7—TAKACHIHO MARU**



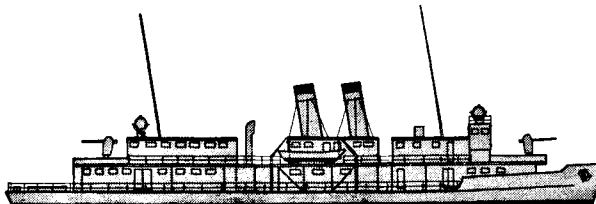
Tonnage: 8,154 tons (gross)  
Length: 473' 0" (oa); 453' 0" (pp)  
Beam: 59' 0"

**XAV 6—YASUKAWA MARU**



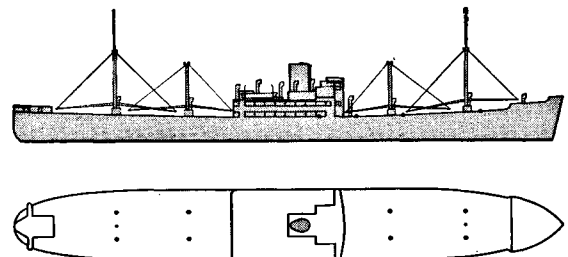
Tonnage: 6,710 tons (gross)  
Length: 455' 0" (pp)  
Beam: 62' 0"  
Main Armament: 2 5"/40

**PR 12—KARATSU (ex USS LUZON)**



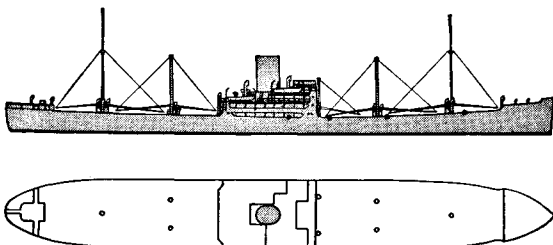
Displacement: 560 tons (stand.)  
Length: 210' 9" (oa); 198' 0" (wl)  
Beam: 31' 1"  
Main Armament: 2 3"/50

**XAPV 1—GOSHU MARU**



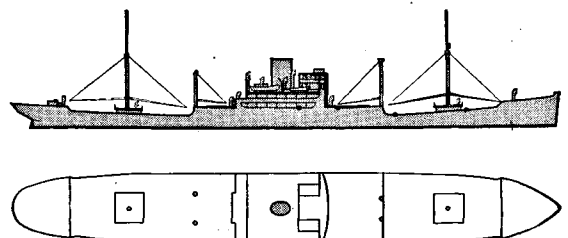
Tonnage: 8,592 tons (gross)  
Length: 460' 0" (oa); 443' 0" (pp)  
Beam: 60' 0"

**XAV 5—SANYO MARU**



Tonnage: 8,360 tons (gross)  
Length: 465' 0" (oa); 446' 0" (pp)  
Beam: 61' 0"  
Main Armament: 2 5"/40

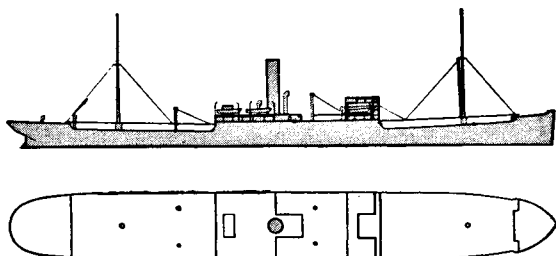
**XAPV—FUJIKAWA MARU Class**



Tonnage: 6,938 tons (gross)  
Length: 436' 0" (pp)  
Beam: 59' 0"

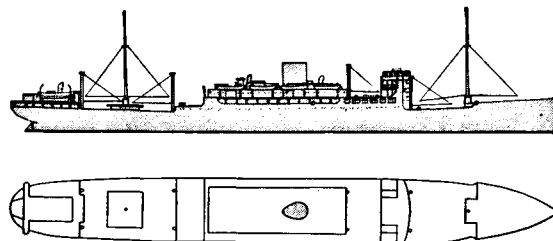
# WAR LOSS SECTION—Graphic

## XAPV 6—LYONS MARU



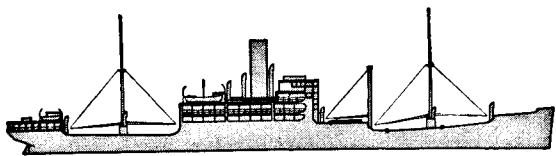
Tonnage: 7,018 tons (gross)  
Length: 462' 0'' (oa); 445' 0'' (pp)  
Beam: 58' 0''

## XAS—HIE MARU Class



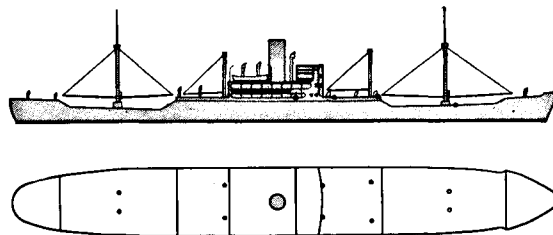
Tonnage: 11,600 tons (gross)  
Length: 535' 0'' (oa); 512' 0'' (pp)  
Beam: 66' 0''

## XAPV 8—NAGOYA MARU



Tonnage: 6,072 tons (gross)  
Length: 406' 8'' (pp)  
Beam: 55' 6''

## XAS 6—ARATAMA MARU



Tonnage: 6,784 tons (gross)  
Length: 475' 0'' (oa); 446' 6'' (pp)  
Beam: 59' 0''

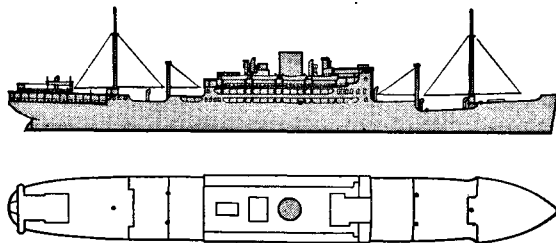
## XAPV 10—TALASAKI MARU

Tonnage: 7,000 tons (gross)

## XAS 7—URAKAMI MARU

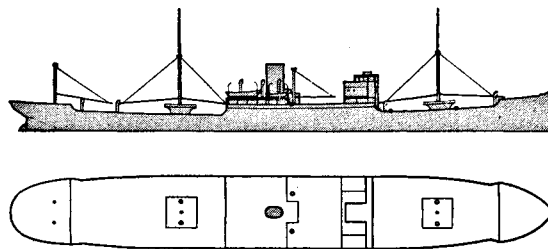
Tonnage: 4,250 tons (gross)  
Length: 360' 0'' (pp)  
Beam: 50' 0''

## XAS 2—YASUKUNI MARU



Tonnage: 11,933 tons (gross)  
Length: 531' 0'' (oa); 507' 0'' (pp)  
Beam: 64' 0''

## XAS 9—SOYO MARU



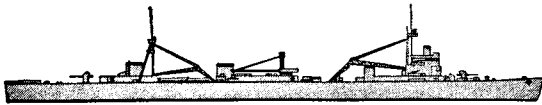
Tonnage: 6,081 tons (gross)  
Length: 415' 0'' (pp)  
Beam: 56' 0''  
Main Armament: 2 3''/40

# WAR LOSS SECTION—Graphic

## AR 1—ASAHI

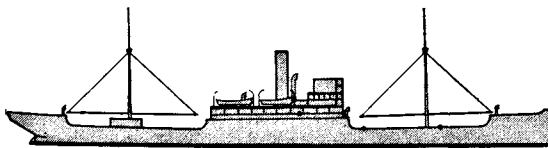
Displacement: 11,441 tons (stand.)  
Length: 425' 3" (oa); 400' 8" (pp)  
Beam: 75' 3"  
Main Armament: 2 5"/40

## AR 2—AKASHI



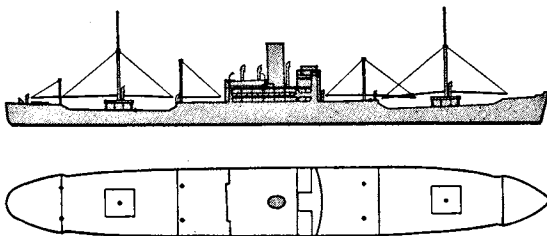
Displacement: 9,000 tons (stand.)  
Length: 499' 11" (oa)  
Beam: 67' 3"  
Main Armament: 4 5"/40

## XARS 2—KASAGI MARU



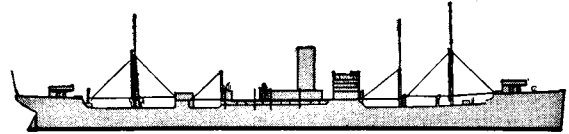
Tonnage: 3,140 tons (gross)  
Length: 325' 0" (pp)  
Beam: 46' 0"

## XARS 3—YAMABIKO MARU



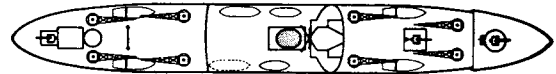
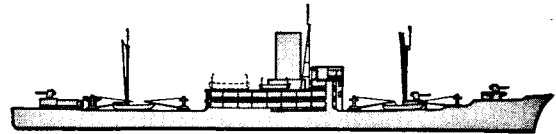
Tonnage: 6,798 tons (gross)  
Length: 460' 0" (oa); 442' 0" (pp)  
Beam: 59' 0"

## AF 1—MAMIYA



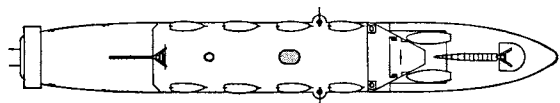
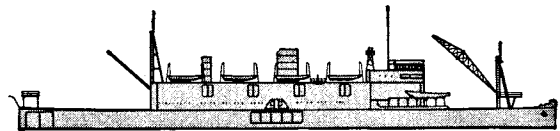
Displacement: 15,820 tons (stand.)  
Length: 483' 0" (oa); 475' 0" (pp)  
Beam: 61' 0"  
Main Armament: 2 5.5"/50

## AF 3—IRAKO



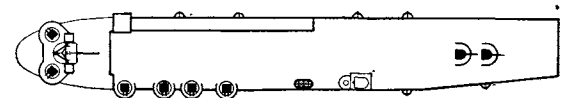
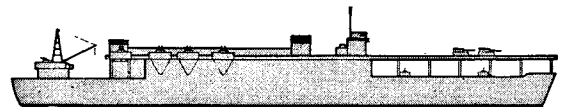
Displacement: 14,000 tons (stand.)  
Length: 475' 0" (oa)  
Beam: 61' 0"  
Main Armament: 3 4.7"

## LSV 1—RYUJO (SINSYU MARU)



Displacement: 8,000 tons (stand.)  
Length: 480' 0" (oa)  
Beam: 57' 0"

## LSV 2—AKITSU MARU



Displacement: 9,000 tons (stand.)  
Length: 493' 0" (oa)  
Beam: 65' 0" (flight deck)

## WAR LOSS SECTION—Graphic

### AGS 4—SOYA

Displacement: 2,000 tons (stand.)

### CL—LAMOTTE-PICQUET

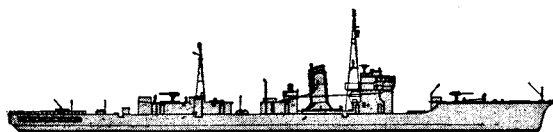
Displacement: 7,249 tons (stand.)

Length: 594' 10'' (oa)

Beam: 57' 5''

Main Armament: 8 6.1''/50

### CMc—NATSUSHIMA Class



Displacement: 443 tons (stand.)

Length: 225' 2'' (wl)

Beam: 24' 6''

Main Armament: 2 3''/40

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