

INTRODUCTION

THE basic principle of Surface Vessel recognition as with aircraft is familiarity with the *total form* of the object observed. The true character of a ship is not determined by a single feature or features but by the familiarity we may have with the total mass of the hull and superstructure, when viewed from great distances.

As in aircraft recognition, the salient recognition characteristics are shown in their simplest form by silhouettes. If this silhouette is further simplified into its basic masses, we obtain a silhouette where the minor details have disappeared, leaving only the real recognition features. It should be noted, however, that in one important respect ship silhouettes differ from those of aircraft. With planes, all three views are of nearly equal importance for correct identification, but in ship recognition, the use of the beam, or side view silhouette, is by far the most important. If the beam silhouette is thoroughly known, the ship can be recognized from either the surface or the air. This can be proven by examining any group of aerial views of ships.

Preceding each group of vessels of each nation represented in this manual is a chart of these simplified silhouettes representing a vessel of each class. These are arranged at the same scale for ease of comparison with each other and with other ships in the same class in other navies. Large instructional charts of these simplified silhouettes are being prepared and will be distributed in the near future.

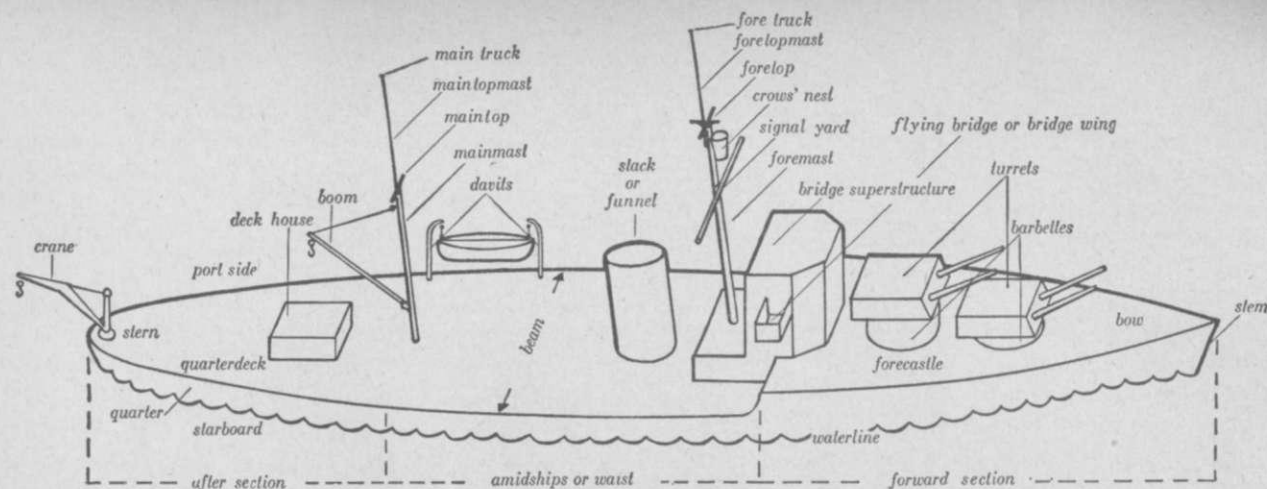
The present manual will serve as a text book in recognition courses inasmuch as it will have material, readily available, within a single cover, on all ships on the present operational list.

Sets of scale models of surface craft are available on request for supplementary instruction from the Bureau of Aeronautics for the Navy, and from the A. A. F. Training Aids Division, New York City, for the Army Air Forces. These are useful for detail examination and for various forms of realistic display on surfaces simulating water under varying light conditions, such as study of fleet maneuvers. The models are particularly valuable since they may be displayed at any angle and may be viewed from above to illustrate views of ships or groups of ships.

Motion pictures are available for a limited number of subjects and serve further to assist in recognition training.

Training in recognition of surface craft follows the same general pattern as in aircraft recognition. The principal value of the flash meter as a teaching device is that it forces the student to grasp total form as opposed to detail. It has already been indicated that this recognition of total mass is as essential for surface craft as for aircraft. Therefore, exposures of slides should be as brief as is consistent with the progress of the group being taught. While, in general, exposures will probably be at the one or one-half second rate, successful work on surface craft images has been reported at speeds up to $\frac{1}{8}$ of a second.

TERMINOLOGY



NOTE: Terms later defined in the text of this section have been omitted in the following list.

ABAFT.. behind; toward stern from.

ABEAM.. at right angles to the keel.

AMIDSHIPS.. the middle portion of a vessel.

ARMOR.. steel plating designed to defeat shells, bombs, or underwater explosion.

ARMOR BELT.. band of armor extending along a ship's sides above and below water-line.

ATHWART.. across; from side to side; transversely.

BEAM.. extreme width of ship.

BILGE.. curved part of ship's hull where sides and flat bottom meet.

BLISTER.. a bulge built into a ship's side as a protection against torpedoes.

BOOM.. a free-swinging spar used to secure boats or to handle cargo, boats or aircraft.

BREAK.. the point at which upper decks are discontinued.

BRIDGE.. raised forward platform from which ship is conned and navigated.

BULKHEAD.. transverse or longitudinal partitions subdividing the interior of a ship.

BULWARKS.. light plating or wooden extension of ship's sides above upper deck.

CASEMATE.. armored gun mount built into the sides or superstructure of a ship.

CLASS.. vessels of the same type built to a common basic design.

COMBINED OPERATIONS.. joint operations conducted by nonhomogeneous forces or forces of different services and/or nationalities.

COMPANIONWAY.. hatchway providing access from one deck to another.

COMPARTMENTATION.. subdivision of a ship's hull by means of transverse and/or longitudinal bulkheads.

CONNING TOWER.. armored ship control station. In submarines, the main deck structure.

TERMINOLOGY

COUNTER-- side of a vessel's quarter.

COWL-- a smoke baffle located on top of a funnel; opening of a ventilator.

DAMAGE CONTROL-- comprehensive term for all means of mitigating or offsetting effects of damage aboard ship.

DEPTH CHARGE-- explosive device projected or dropped from air or surface craft; detonated at predetermined depths by a hydrostatic mechanism.

DISPLACEMENT-- the weight of water displaced by a ship.

FANTAIL-- after section of the main deck.

FORE-- That part of a ship lying between bow and midship section.

FORE AND AFT-- lengthwise of a ship.

FORECASTLE-- deck; a forward upper deck extending to bow.

FREEBOARD-- height of a ship's sides from waterline to a weather deck.

FLYING BRIDGE-- a light self-supporting structure extending from side of ship's bridge.

GUN HOUSE-- a lightly protected, rotating mount for guns of lesser calibre.

GUN SHIELD-- any protection for gun crews which does not completely enclose mount.

GUNWALE-- upper edge of a vessel's or boat's side.

HALLYARDS-- light lines used in hoisting signals, flags, etc.

HATCH-- opening in a deck.

HAWSE PIPES-- tubes leading anchor chains from deck down and forward through bow plating.

HELM-- the mechanism for operating the ship's rudder.

HULL-- main body of a vessel exclusive of elements of superstructure.

ISLAND-- a free-standing section of a ship's superstructure. On aircraft carriers, the ship's superstructure.

KEEL-- center line strength member running fore and aft along the bottom of a ship.

KNOT-- a unit of speed, equalling one nautical mile (6,080.20 feet) per hour.

LIST-- transverse inclination of a vessel.

MAIN BATTERY-- the heaviest calibre gun armament carried by a naval vessel.

MAIN DECK-- a ship's highest continuous deck.

MINE-- a device containing high explosive charge, free-floating or anchored at fixed depth, or resting on bottom; detonated by contact, or by electrical or magnetic impulse.

MULTIPLE MAST-- an exposed mast having one or more supporting elements.

PEAK (fore and aft)-- compartment at the extreme bow or stern of vessel below decks—usually a tank.

PORT-- left hand side of a vessel when looking towards bow; an opening.

QUARTER-- that portion of a vessel's side near the stern.

QUARTER DECK-- part of upper deck reserved for officers; also the deck near the stern.

RADIO DIRECTION FINDER-- device for determining direction of source of radio impulses.

RAKE-- fore and aft inclination from vertical.

RANGEFINDER-- optical instrument for determining distance to a target or other object.

RECIPROCATING ENGINE-- a steam actuated piston engine as distinguished from a turbine.

RIGGING-- collective term for ropes and chains employed to support masts, yards, and booms of vessel.

SECONDARY BATTERY-- the gun armament next in calibre to main battery.

SHEER-- longitudinal upward or downward curvature of deck or gunwale.

SHEER LINE-- line formed by intersection of deck and sides of a ship.

SPLINTER SCREEN-- light armor shields for protection of crew.

STACK-- exposed uptake from ship's boilers; funnel.

STARBOARD-- the right hand side of a vessel when looking towards bow.

STEM-- extreme forward line of bow.

STERN POST-- the main vertical post in the stern frame upon which the rudder is hung.

SUPERSTRUCTURE-- any structure built above a ship's hull.

TASK FORCE-- a naval force organized to carry out a specific mission.

TURRET-- a rotating mount enclosed by armor for guns of large calibre.

TWIN TURRET-- a turret housing two guns.

TYPE-- all vessels built or converted for the same purpose.

WEATHER DECK-- any deck exposed to weather.

WELL-- a lateral opening in a ship's hull or superstructure.

ATTRIBUTES OF FIGHTING SHIPS

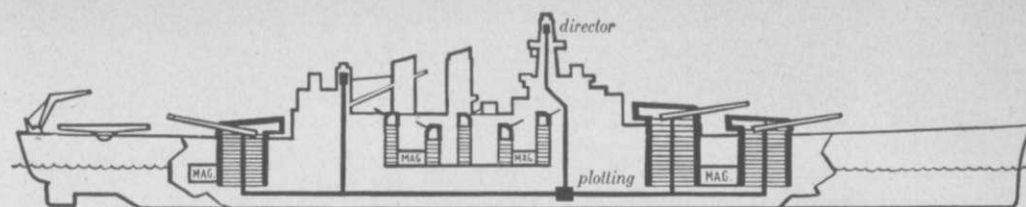
A ship, to be classed as a *fighting ship*, must be capable of inflicting damage and of sustaining or avoiding damage. She must possess sufficient speed and maneuverability to execute her mission and the capacity to proceed independently to a scene of action. The *type* of a warship is determined by the degree to which each of these qualities has been stressed in her design.

ARMAMENT

Capacity to "dish it out" is a primary attribute of fighting ships. Ships may be designed to inflict damage by *shells* from their guns, *torpedoes* from their tubes, *bombs* from aircraft they may carry, or by *depth charges* or *mines*. Battleships and cruisers are essentially *gun ships*,

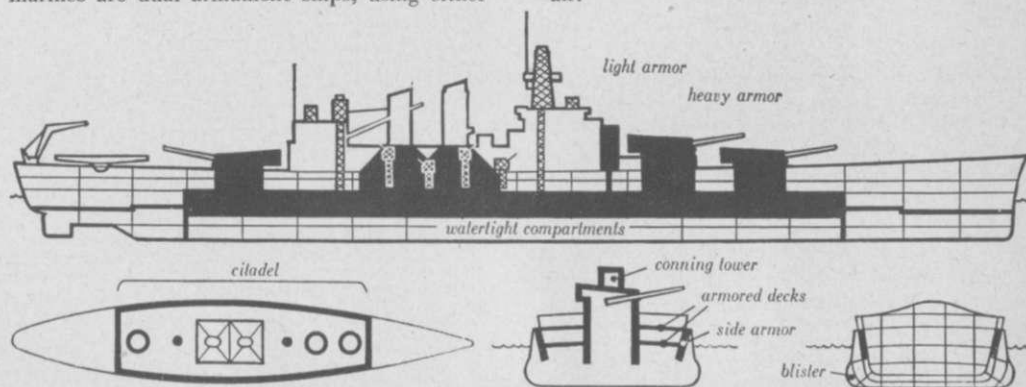
PROTECTION

A fighting ship must also be able to "take it." A ship may be designed to absorb punishment, to mitigate its effect, or to avoid it. She may be provided with *armor*: heavy steel plate around vital parts to defeat shells, bombs, and torpedoes. Her hull will be subdivided into separate spaces, or provided with bulges or blisters, to confine the effects of flooding and explosion. This is called *compartmentation*. *Damage control* systems consisting of provisions for counterflooding, fire fighting, etc., are developed in varying degree in all types. Speed and



although they carry other weapons. Carriers, minelayers, and torpedo boats are designed for special attack functions, with guns provided largely for defense, while destroyers and submarines are dual armament ships, using either

guns or torpedoes. Larger types carry secondary batteries, primarily intended for defense against destroyers or submarines, or, if "dual purpose," for protection from attack from the air.



maneuverability in themselves constitute factors of protection in smaller types in which armament and protection have been sacrificed for these

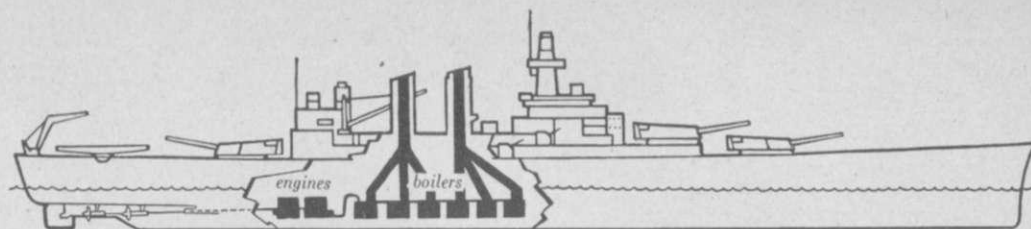
qualities, while submarines depend for protection largely on their ability to make themselves invisible by submerging.

ATTRIBUTES OF FIGHTING SHIPS

MOBILITY

Most fighting ships are propelled by high-pressure steam boilers and geared turbine engines, although Diesel or reciprocating engines are sometimes used in smaller types. Diesels are used in submarines when operating on the surface, electric storage battery motors when submerged.

Since a large proportion of total displacement and space is allotted to armament and protection in the design of battleships, these ships do not attain the high speeds of many smaller combat



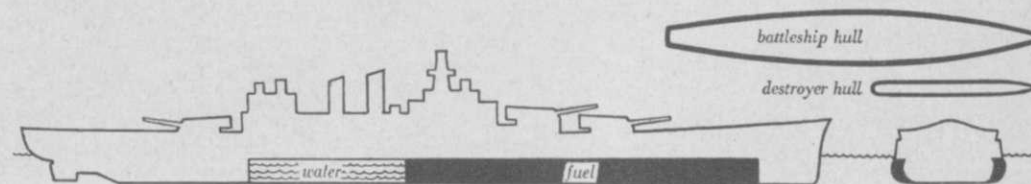
units. Carriers are designed for speed, with corresponding sacrifice of armor. Cruisers' speed will range from 30 knots, which will permit a heavy cruiser to operate with the fleet and outrun

most battleships, to speeds of over 40 knots in lighter types. Speed is essential to a destroyer's functions and new types are capable of attaining or bettering that of any cruiser.

SEA KEEPING

Without the capacity to reach a scene of operations, execute a mission, and return to a base, even the fastest and most powerful fighting ship would be of little value.

To bring an enemy to action is the battleship's primary function, and these ships must carry crews and provisions necessary to take them into battle with enough shells and fuel and food aboard to permit them to fight and return. Since cruisers are often required to perform independent missions at great distances, *sea keeping* capacity is a vital consideration in their design. Carriers must also be designed to accommodate provision for extended operations and fuel for their aircraft. Destroyers, as they



often operate with battle fleets or in convoy, must also carry provisions for such work, subject to limitations of size, while submarines are required to remain in enemy waters for extended periods. It will, therefore, be seen that *sea keeping* is a very important factor in the design of all more important types of fighting ships.

The bulky hull of the battleship (above) reflects capacity to accommodate provision for sea repair and for storage of immense quantities of fuel, water, food, ships stores, and lubricating oil, while the proportions of destroyer hulls indicate limitations in sea-keeping capacity inherent in their type.

JAPANESE NAVAL VESSELS



JAPAN



SIMPLIFIED SILHOUETTES

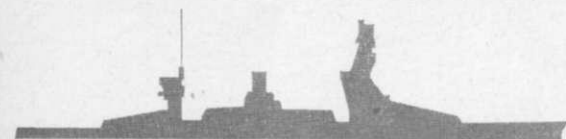




BATTLESHIPS-BB



KONGO CLASS



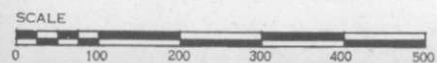
FUSO CLASS



ISE CLASS



NAGATO CLASS



SCALE

HEAVY CRUISERS-CA



NACHI CLASS



ATAGO CLASS



ATAGO CLASS
CHOKAI-MAYA GROUP



MOGAMI CLASS



AOBA CLASS



TONE CLASS

LIGHT CRUISERS-CL



KATORI CLASS



KUMA-NATORI CLASSES



TENRYU CLASS



SENDAI CLASS

AIRCRAFT CARRIERS—CV



SHOKAKU CLASS



HOSHO

SEAPLANE CARRIERS—CVS



MIZUHO CLASS



CHITOSE CLASS

DESTROYERS—DD



ASASHIO CLASS



TERUTSUKI CLASS



FUBUKI CLASS
AMIGIRI GROUP



FUBUKI CLASS
SHINONOME-HIBIKI GROUPS



MUTSUKI-KAMIKAZE CLASSES



MINEKAZE-WAKATAKE-MOMI
CLASSES



SHIGURE CLASS



HATSUHARU CLASS



CHIDORI-OTORI CLASSES



YUBARI—CL

SCALE



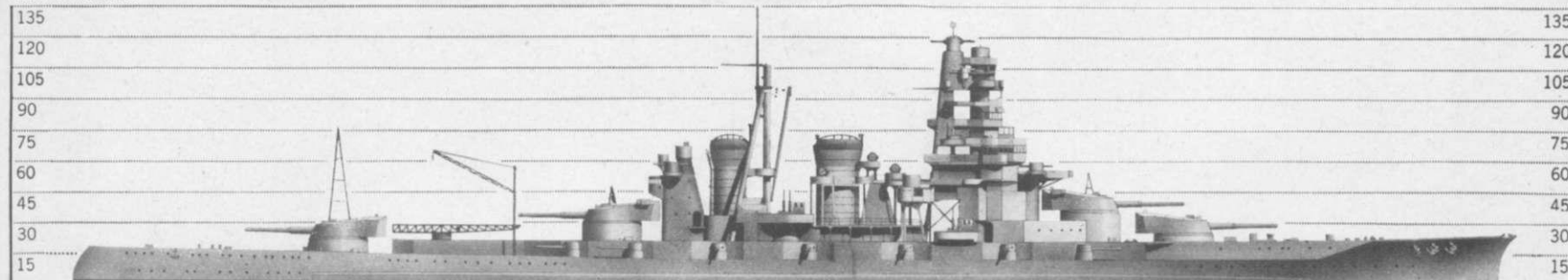
ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

KONGO CLASS BB-1-4



DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—NOVEMBER, 1942

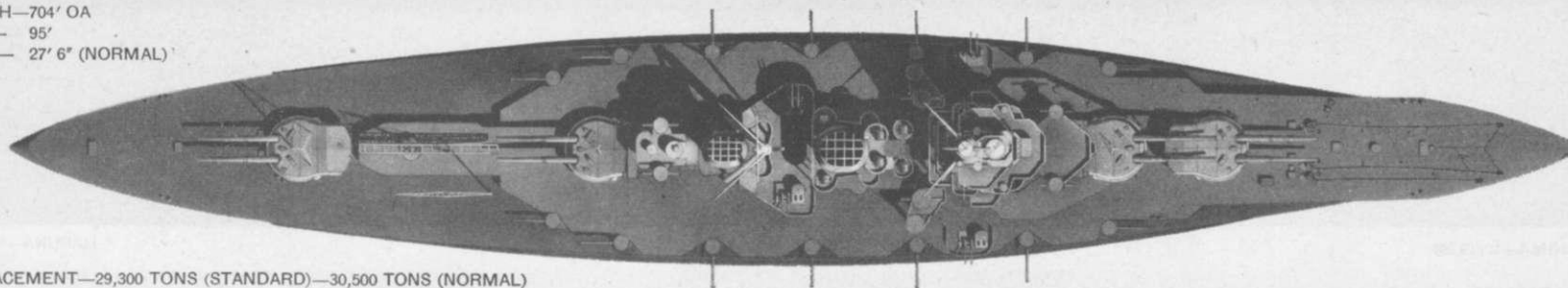
HEIGHT OF OBSERVER



HORIZON BEYOND THE SHIP

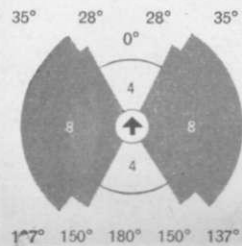
SHIP BEYOND THE HORIZON

LENGTH—704' OA
BEAM— 95'
DRAFT— 27' 6" (NORMAL)



DISPLACEMENT—29,300 TONS (STANDARD)—30,500 TONS (NORMAL)

DENSITY OF FIRE
MAIN BATTERY



ARMAMENT

8-14" (45)
14-6" (50) CASEMATES
8-5" AA TWIN MOUNTS
1 CATAPULT, 3 SCOUT OBSERVATION
NOTE: HIYEI, ONCE DEMILITARIZED; MAY HAVE WEAKER ORDNANCE.

MAX. ELEV.

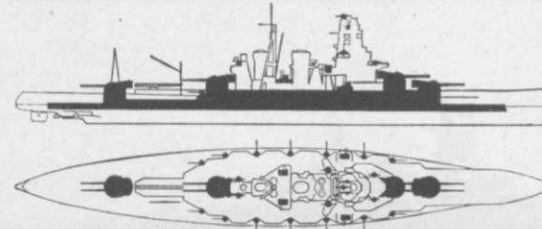
30°
25°
85°

RANGE

30,000 YD.
19,000 YD.
18,000 YD.

PROTECTION

BELT— 6"-8" WITH 3" ENDS
TURRETS— 9"-10"
BARBETTES— 10"
CONNING TOWER— 10"
DECK— 2 3/4"-4"; 7" OVER VITALS



PROPULSION

DES HP— 78,000
ENDURANCE—3,500 @ 26 KNOTS

DES SPEED—26 KNOTS
12,600 @ 12 KNOTS

KONGO CLASS





KONGO CLASS—BB1-4

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—NOVEMBER, 1942

KONGO— BB1
HIYEI— BB2
KIRISHIMA—BB3
HARUNA— BB4

BEGUN
1/17/11
11/4/11
3/17/12
3/16/12

COMPLETED
8/16/13
8/4/14
4/19/15
4/19/15

MODERNIZED
1935-1937
1938
1926-1930
1929-1934

ONI 41-42

RESTRICTED



↑ KIRISHIMA—12/19/38

KONGO—12/19/38 ↓

HARUNA—1937 ↓





FUSO—BB 5

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—DECEMBER, 1942

FUSO —BB 5
YAMASHIRO—BB 6

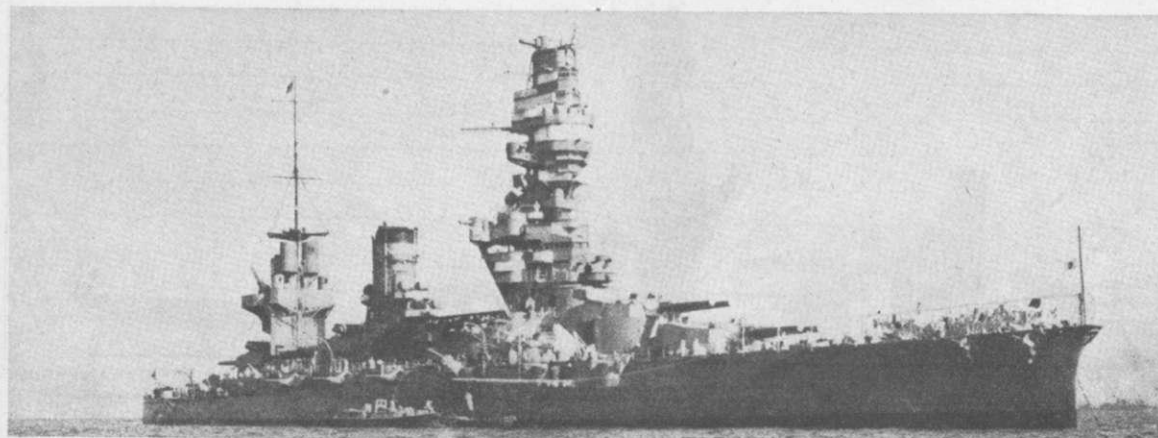
BEGUN
3/11/12

COMPLETED
11/8/15

MODERNIZED 1932-33
PROFILE MODIFIED

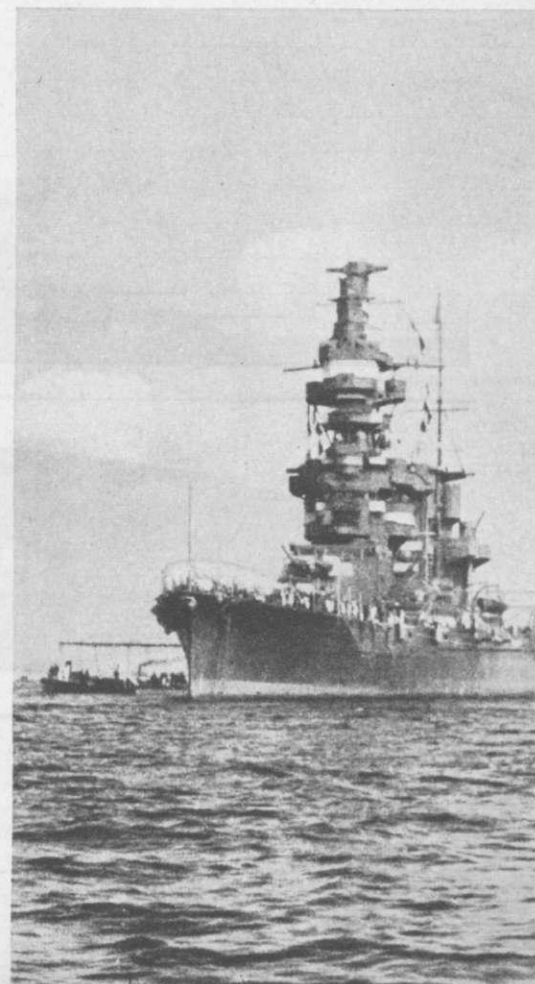
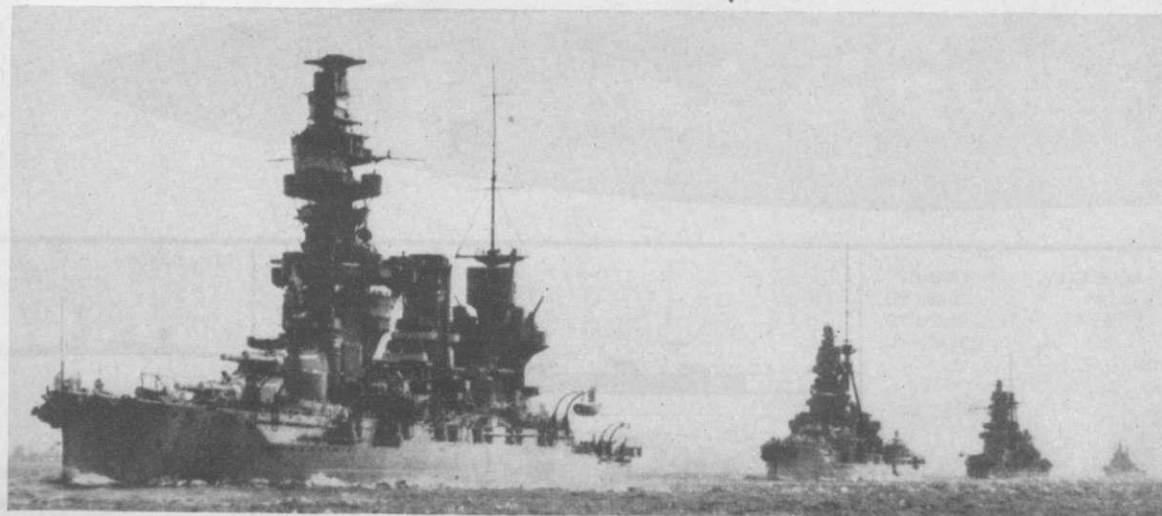
ONI 41-42

RESTRICTED



↑ 1935

↓ FUSO LEADING UNITS OF THE KONGO CLASS



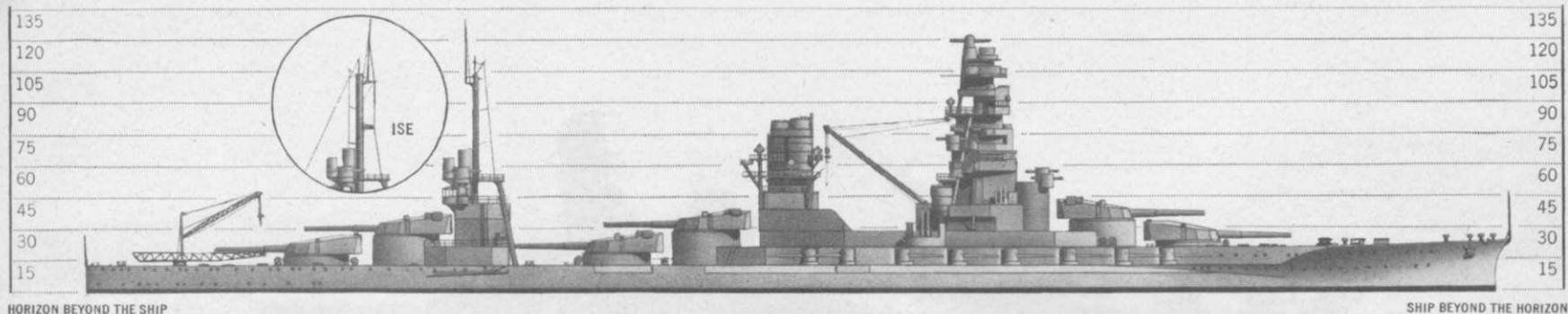
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ISE, HYUGA—BB 7, 8



DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—OCTOBER, 1942

HEIGHT OF OBSERVER

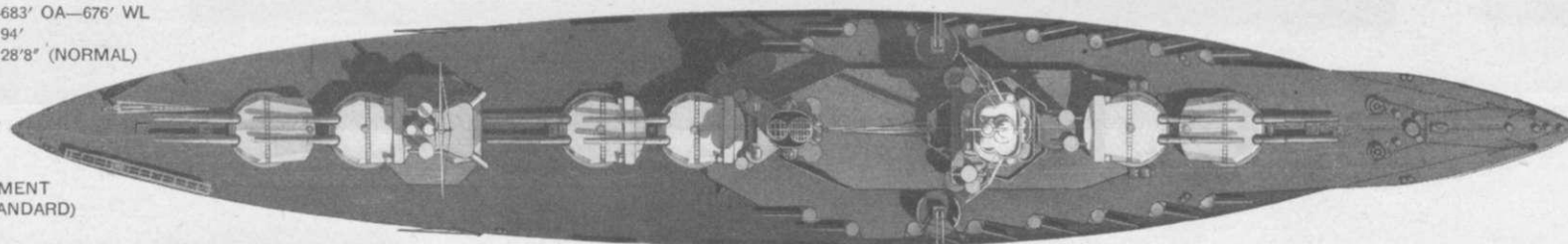


HORIZON BEYOND THE SHIP

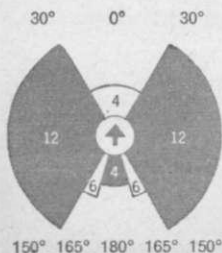
SHIP BEYOND THE HORIZON

LENGTH—683' OA—676' WL
BEAM— 94'
DRAFT— 28'8" (NORMAL)

DISPLACEMENT
29,990 (STANDARD)



DENSITY OF FIRE
MAIN BATTERY



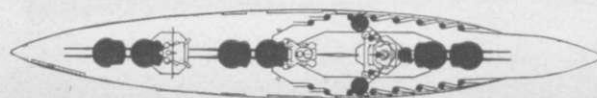
ARMAMENT

12-14" (45) TWIN TURRETS
16-5" (50) CASEMATES
8-5" AA, 4-1" AA TWIN MOUNTS
1 CATAPULT, 3 SEAPLANE SCOUTS

MAX. ELEV.

RANGE

30° 30,000 YD.
25° 19,000 YD.
85° 18,000 YD.

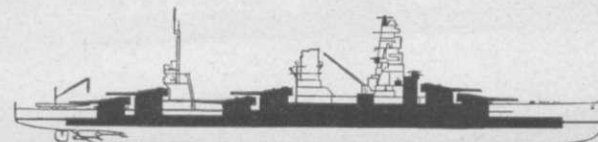


PROTECTION

BELT— 8"-12"
TURRETS— 8"-12"
BARBETTES— 8"
CONNING TOWER—12'-6"
DECK 6 3/4"-
2 1/2"

PROPULSION

MACHINERY— 4 TURBINES
BOILERS— 8 KAMPON
FUEL— OIL, 4,500 TONS
DES HP— 45,000
DES SPEED— 23 KNOTS
ENDURANCE— 4,200 @ 23 KNOTS
12,600 @ 12 KNOTS



KNOTS

RPM

.....420
.....400
.....350
23.....318
.....300
.....275
.....250
.....245
.....240
.....220
.....200
.....160
.....150
.....120
.....80



ISE, HYUGA—BB 7, 8

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—OCTOBER, 1942

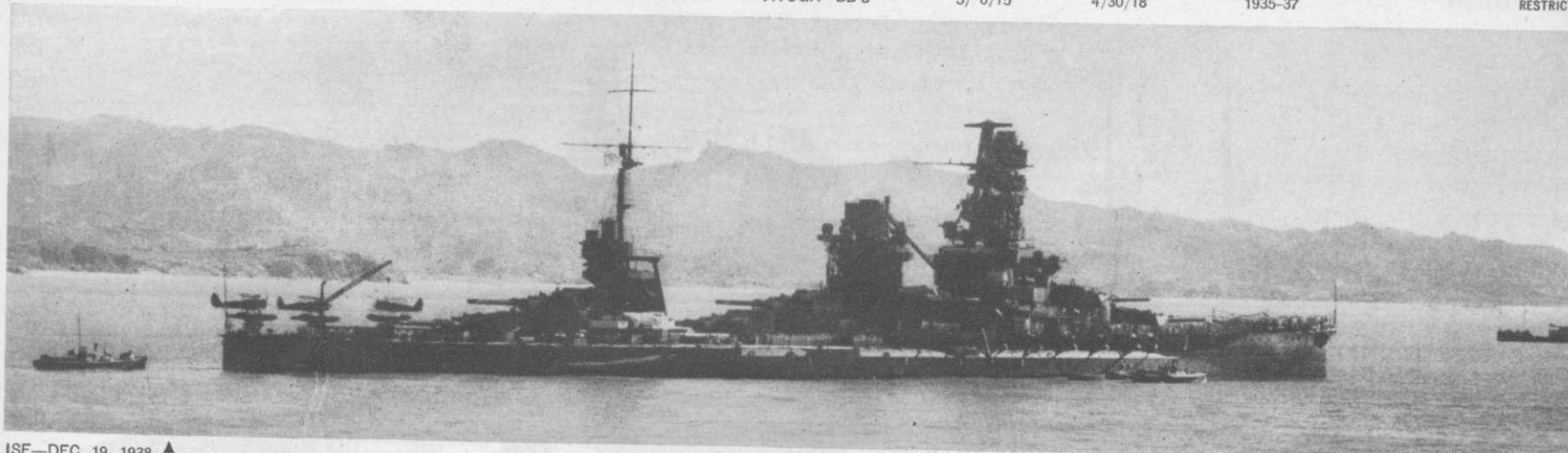
ISE —BB 7
HYUGA—BB 8

BEGUN
5/10/15
5/ 6/15

COMPLETED
12/15/17
4/30/18

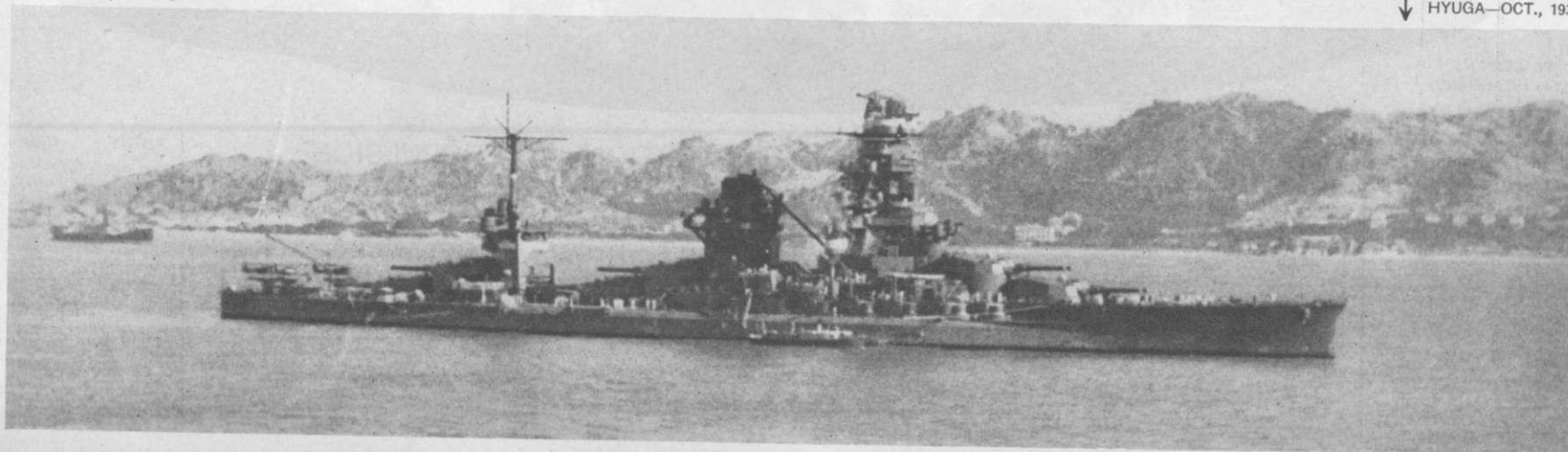
MODERNIZED
1935-37

ONI 41-42
RESTRICTED



ISE—DEC. 19, 1938 ↑

↓ HYUGA—OCT., 1938



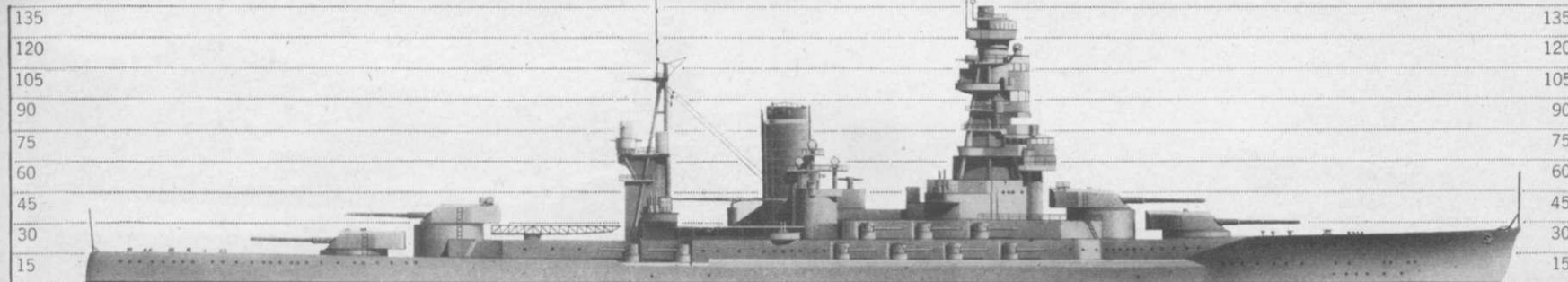
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NAGATO CLASS—BB9-10



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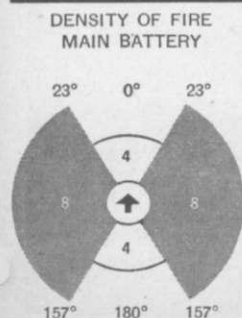
HEIGHT OF OBSERVER



HORIZON BEYOND THE SHIP

LENGTH—700' OA
BEAM— 95'
DRAFT— 29'8" (NORMAL)

DISPLACEMENT—
32,720 TONS (STANDARD)
33,800 TONS (NORMAL)



ARMAMENT

8-16" (45) TWIN TURRETS
18-5"5 (50) CASEMATES
8-5" AA TWIN SHIELD MOUNTS
1 CATAPULT, 3 SEAPLANE SCOUTS

MAX. ELEV.

35°
25°
85°

RANGE

36,000 YD.
19,000 YD.
17,000 YD.

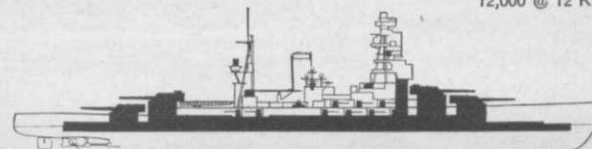


PROTECTION

BELT— 13"
TURRETS— 14"
BARBETTES—
CONNING TOWER—14"
DECK—(OVER VITALS)
3 1/2"—7"

PROPULSION

MACHINERY— 4 TURBINES
BOILERS— 21 KAMPON
FUEL— OIL—5,000 TONS
DESIGNED HP— 80,000
DESIGNED SPEED—26 KNOTS
ENDURANCE— 4700 @ 26 KTS
12,000 @ 12 KTS



KNOTS RPM

.....	420
.....	400
.....	350
26.....	330
.....	300
.....	275
.....	250
.....	245
.....	240
.....	220
.....	200
.....	160
.....	150
.....	120
.....	80



NAGATO CLASS—BB9-10

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—OCTOBER, 1942

NAGATO—BB9
MUTSU —BB10

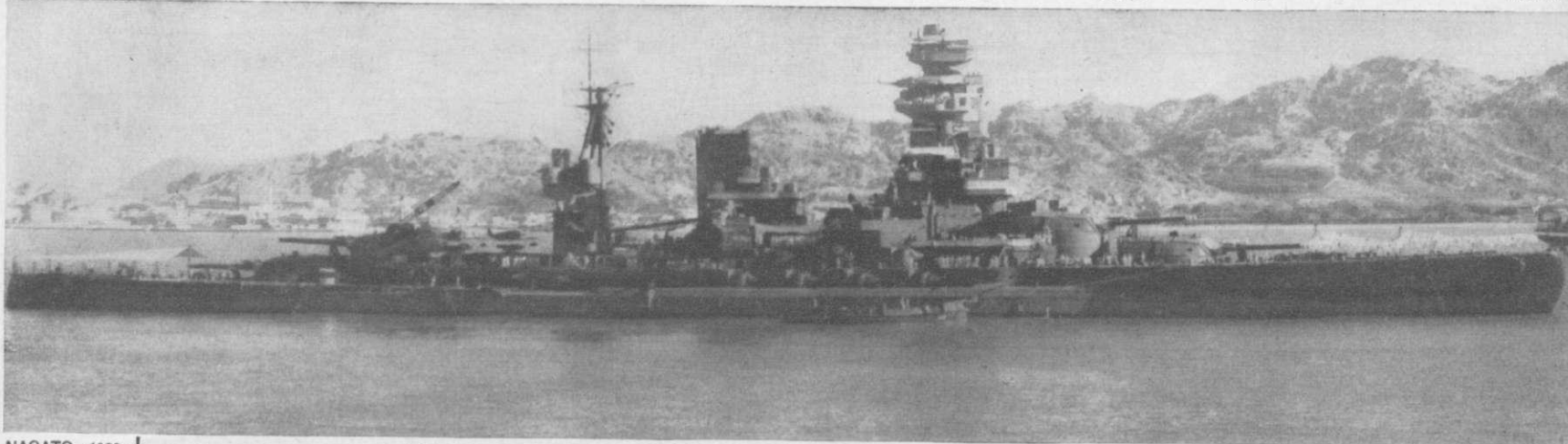
BEGUN
8/28/17
6/1 /18

COMPLETED
11/25/20
10/24/21

MODERNIZED
1935
1936

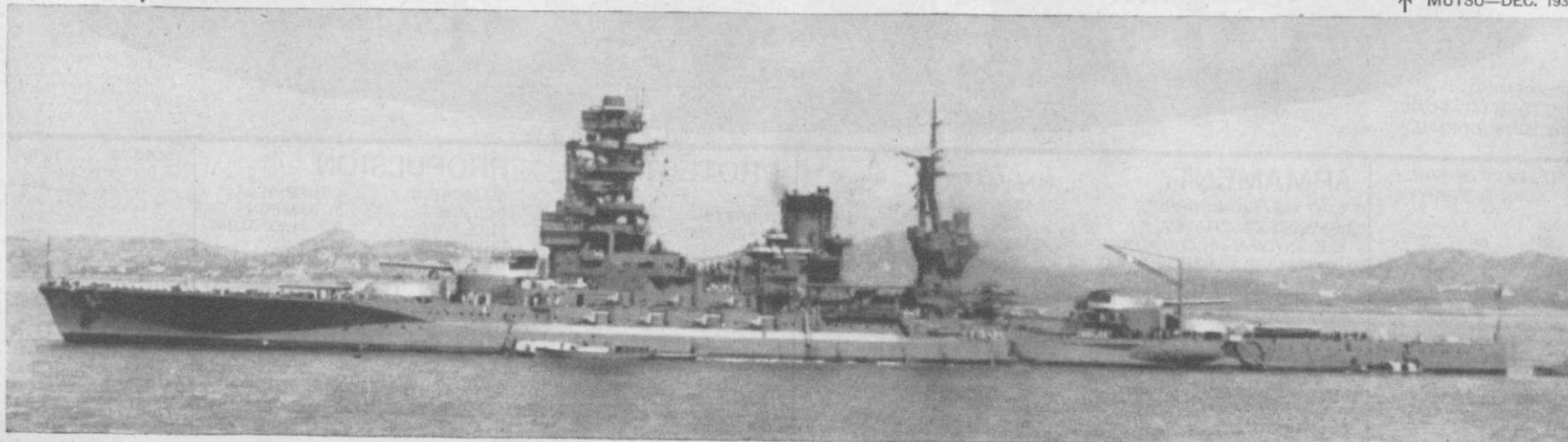
ONI 41-42

RESTRICTED



NAGATO—1938 ↓

↑ MUTSU—DEC. 1938



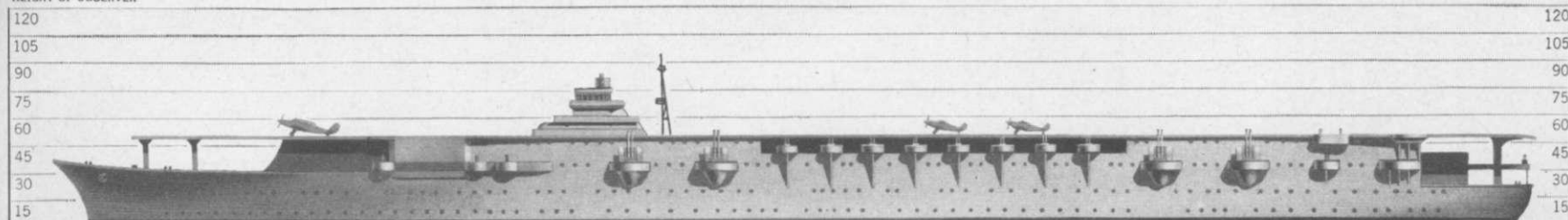
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★ SHOKAKU CLASS—CV7-8

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HEIGHT OF OBSERVER

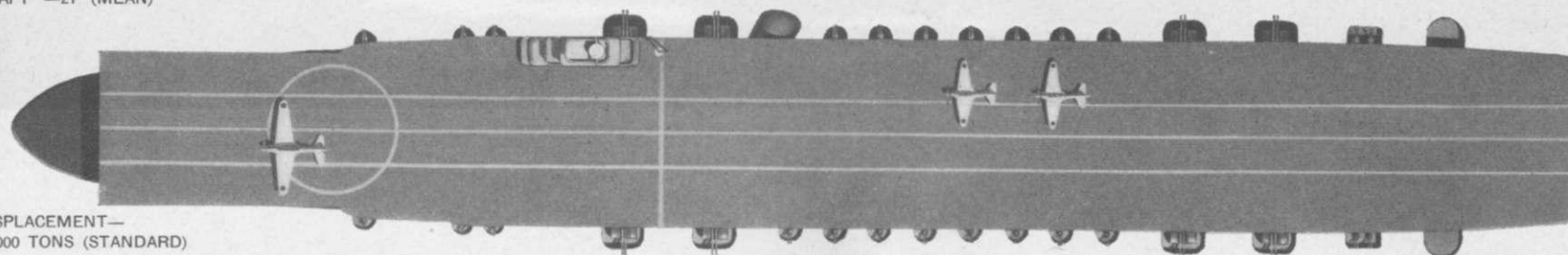


HORIZON BEYOND THE SHIP

SHIP BEYOND THE HORIZON

LENGTH—826' OA—792' WL
BEAM —93'
DRAFT —21' (MEAN)

★ BASED ON INCOMPLETE INFORMATION



DISPLACEMENT—
15,000 TONS (STANDARD)

ARMAMENT

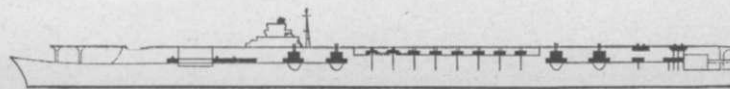
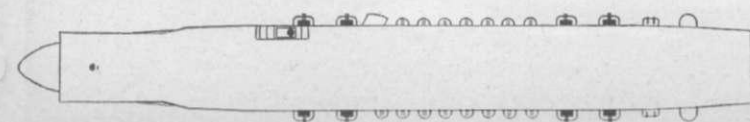
16-5"	TWIN MOUNTS	MAX. ELEV. 85°	RANGE 18,000 YD.
AIRCRAFT—VF	—18-21		
VOB OR VSB	—18-21		
VTB	—18-21		

PROPULSION

MACHINERY—	GEARED TURBINES
BOILERS—	
FUEL—	OIL—3500 TONS
DESIGNED HP—	
DESIGNED SPEED—	30 KNOTS (?)
ENDURANCE—	3900 @ 30(?) KNOTS
	14,000 @ 12 KNOTS

KNOTS RPM

.....	420
.....	400
.....	350
.....	300
.....	275
.....	250
.....	245
.....	240
.....	220
.....	200
.....	160
.....	150
.....	120
.....	80





SHOKAKU CLASS—CV7-8

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—OCTOBER, 1942

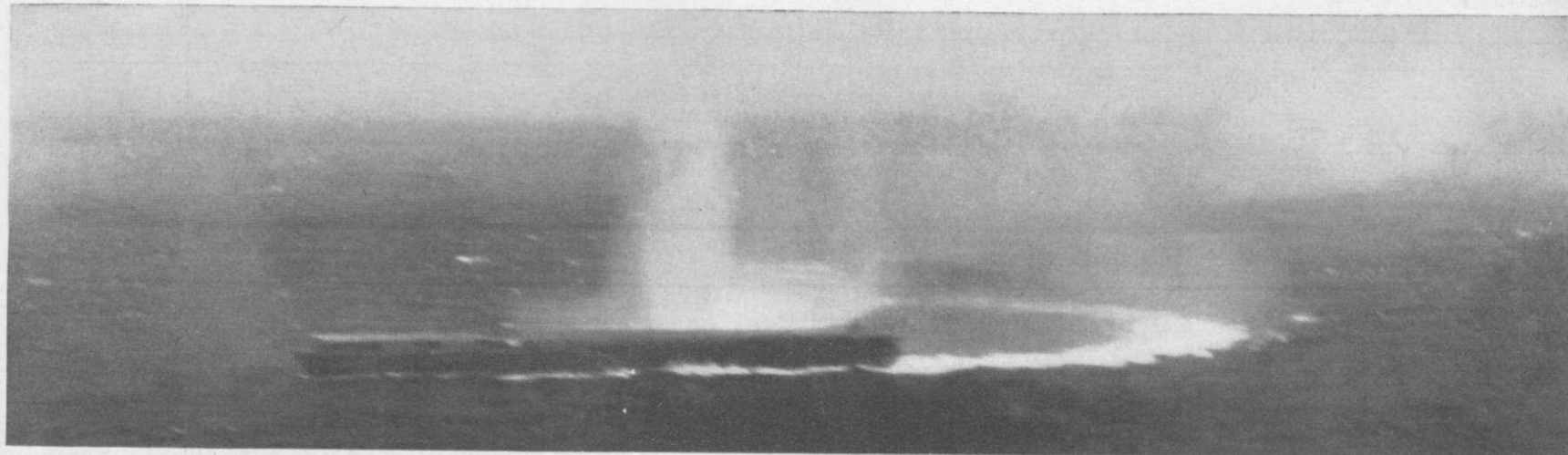
SHOKAKU—CV7
ZUIKAKU— CV8

BEGUN
12/11/37
1938

COMPLETED
8/ /40
1941

ONI 41-42

RESTRICTED



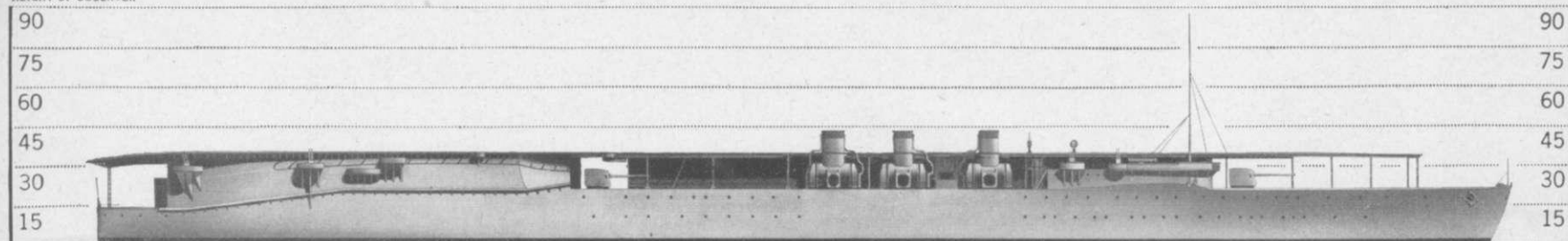
CORAL SEA—MAY 8, 1942

ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

ALSO SPELLED HOSYO **HOSHO—CV 1**
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—NOVEMBER, 1942



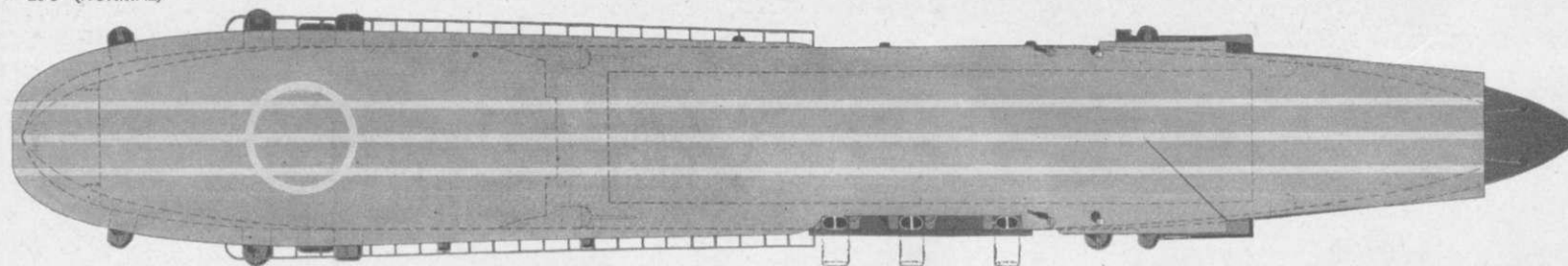
HEIGHT OF OBSERVER



HORIZON BEYOND THE SHIP

SHIP BEYOND THE HORIZON

LENGTH—540'6" OA—531' WL
BEAM —62'
DRAFT —20'3" (NORMAL)



DISPLACEMENT—7,470 TONS (STANDARD)—9,500 TONS (NORMAL)

ARMAMENT

4-5" 5 (50)
2-3" (40)
—AAMG
36 AIRCRAFT—12 FIGHTER
12 SCOUT OBSERVATION
12 TORPEDO BOMBER

MAX. ELEV.

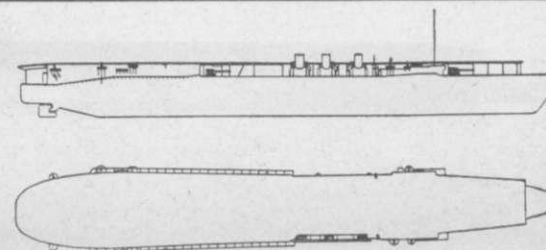
30°
85°

RANGE

19,000 YD.
6,000 YD.

PROPULSION

MACHINERY— 2 GEARED TURBINES
BOILERS— 8 KAMPON
FUEL— OIL 1,500 TONS
DESIGNED HP— 30,000
DESIGNED SPEED— 26 KNOTS
ENDURANCE— 2,170 @ 26 KNOTS
8,680 @ 12 KNOTS





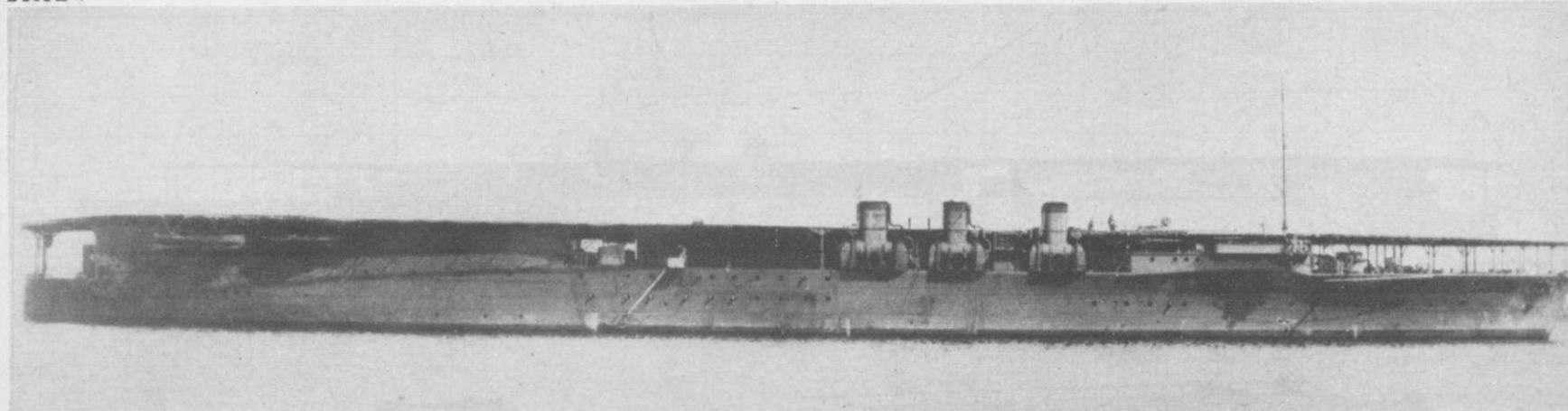
HOSHO—CV1

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—NOVEMBER, 1942

BEGUN — DECEMBER 16, 1919
COMPLETED — DECEMBER 27, 1922

ONI 41-42

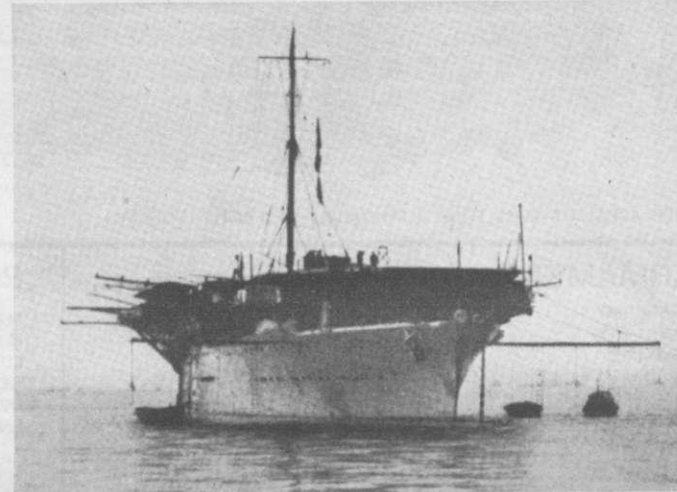
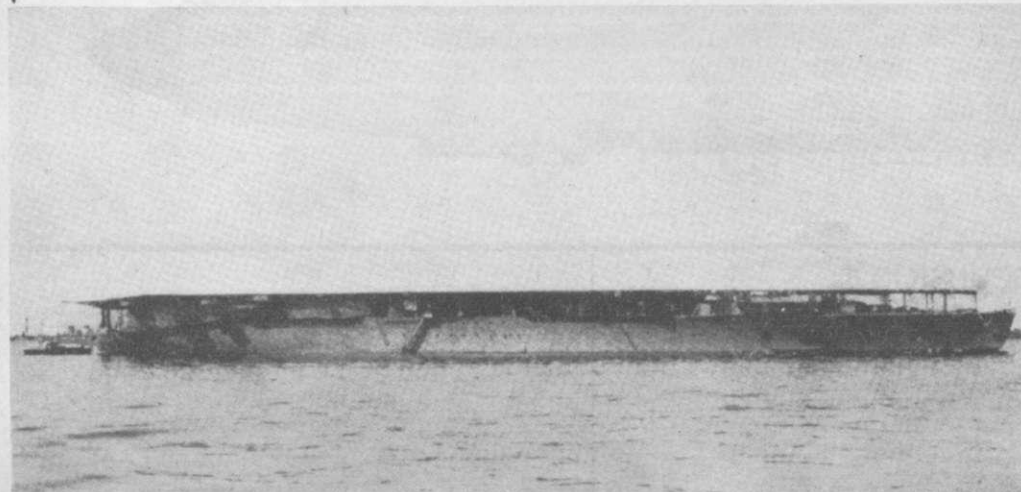
RESTRICTED



↓ 1939

JAPAN'S FIRST CARRIER, ALSO FIRST BUILT AS A CARRIER

1939 ↓



ONI 41-42 RESTRICTED

ALL DATA AND DRAWINGS
PROVISIONAL

CV-CVE ESCORT AIRCRAFT CARRIERS



CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—AUGUST, 1943

SHOKAKU CLASS CV 7, 8

RECENT REPORTS INDICATE—DISPLACEMENT 20,000 TONS (STANDARD)
—72 AIRCRAFT CARRIED

HITAKA CLASS CV 11, 12 (CONVERTED 1942)

LENGTH— 720'
ARMAMENT— 16-5" AA
AIRCRAFT— 48-60
DESIGNED SPEED—28 KNOTS
HITAKA (HIYO) CV 11 (EX-IZUMO MARU)
HAYATAKA (JUNYO) CV 12 (EX-KASHIWARA MARU)

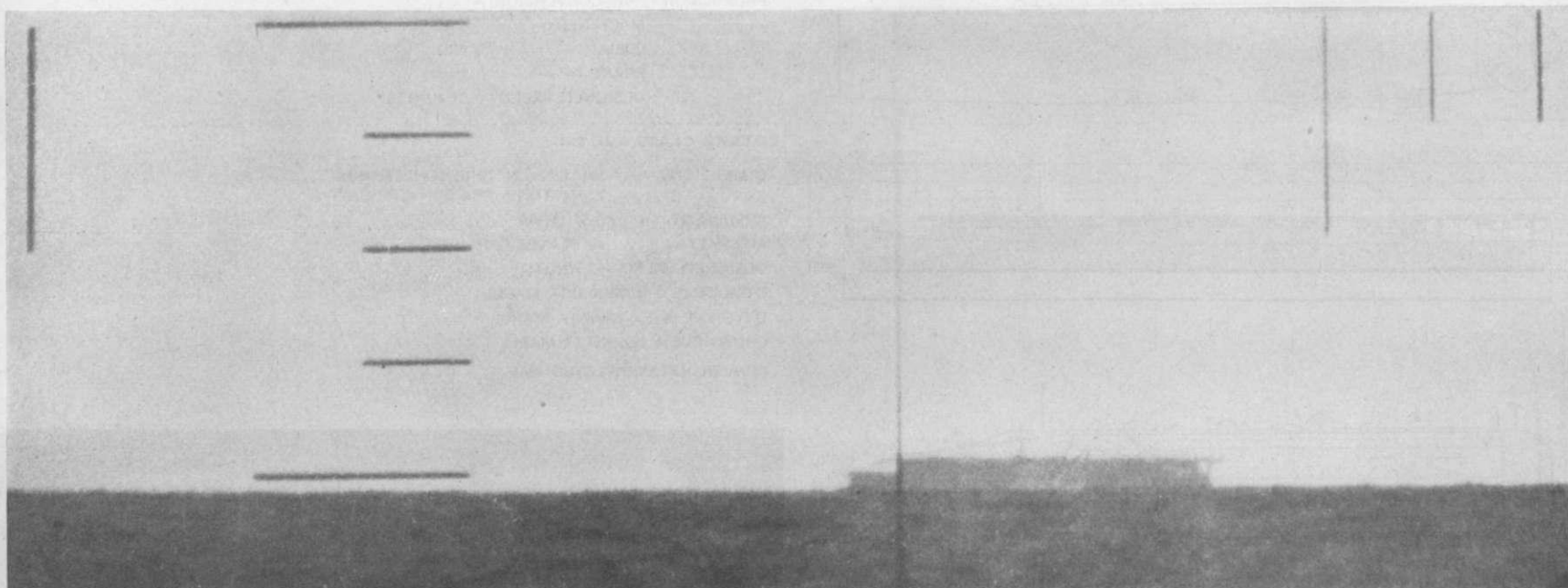
ZUIHO CLASS CV 9, 10 (EX-AS TAKASAKI—CONVERTED 1940)

LENGTH— 660' O.A.
DISPLACEMENT— 15,000 (?) TONS (STANDARD)
DESIGNED SPEED—25 (?) KNOTS
AIRCRAFT— 36 PLANES CARRIED
SHOHO CV 10— REPORTED SUNK 5/7/42



↑ PROBABLY ZUIHO CLASS ↓

PHOTO 4/7/43



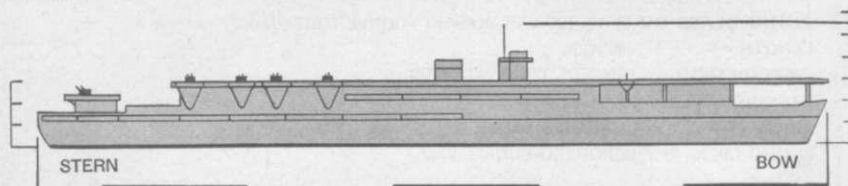


CVE ESCORT AIRCRAFT CARRIER

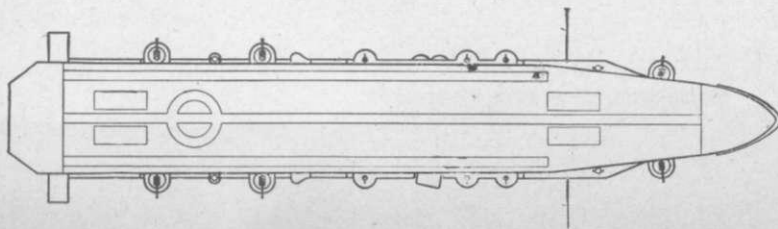
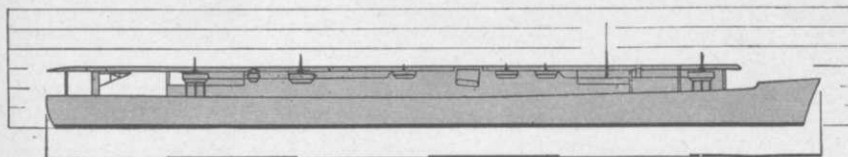
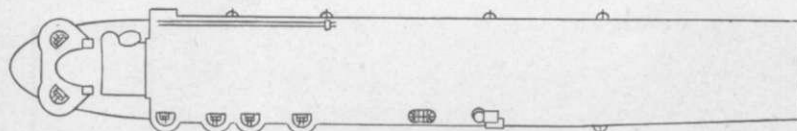
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—AUGUST, 1943

ONI 41-42

RESTRICTED



LENGTH—545' OA, 516' WL, 450' FLIGHT DECK
BEAM— 69' HULL, 74' FLIGHT DECK
DRAFT— 29' (MAXIMUM—PRE-CONVERSION)
12,775 TONS (GROSS—PRE-CONVERSION)



← CVE 1—(EX-ARGENTINA MARU TYPE)

COMPLETED 1939—CONVERTED 1942

ARMAMENT— 6 HEAVY AA MOUNTS
5 AAMG MOUNTS

AIRCRAFT— 30 (?)

PROPULSION—(PRE-CONVERSION)—

MACHINERY—	DIESEL
FUEL—	OIL
BRAKE HP—	16,500
DESIGNED SPEED—	21 KNOTS

OTAKA CLASS CVE 2-4

DIMENSIONS— 591' OA x 74' (PRE-CONVERSION)
22,500 TONS (PRE-CONVERSION)

ARMAMENT— 6-5" (?) AA

AIRCRAFT— 48 PLANES CARRIED

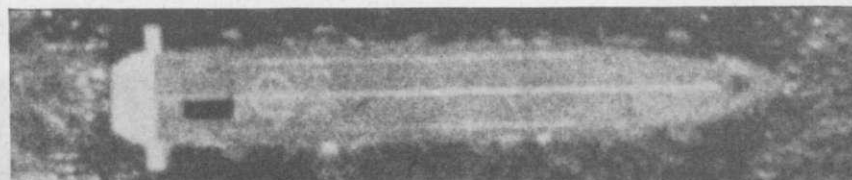
DESIGNED SPEED—23 KNOTS

OTAKA CVE 2 (EX-KASUGA MARU)

UNYO CVE 3 (EX-YAWATA MARU)

CHUYO CVE 4 (EX-NITTA MARU)

CONVERSION COMPLETED 1941



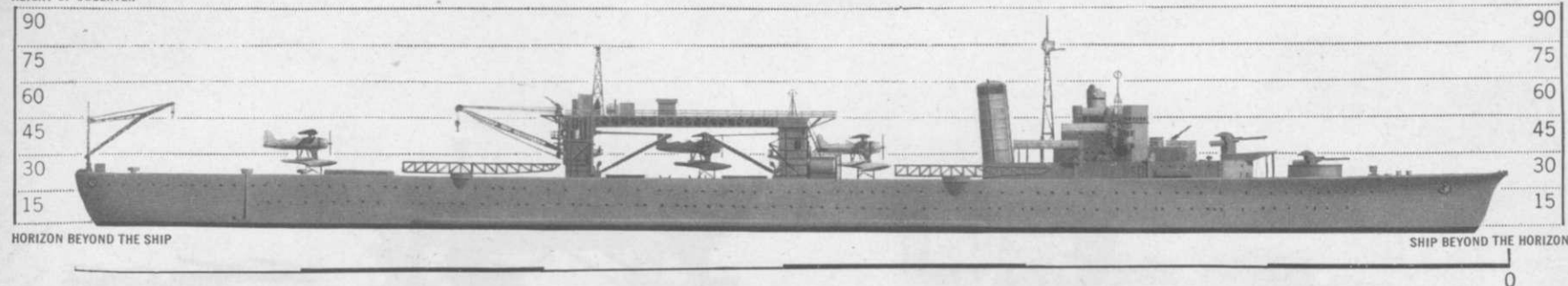
ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

CHITOSE CLASS—CVS 3, 4

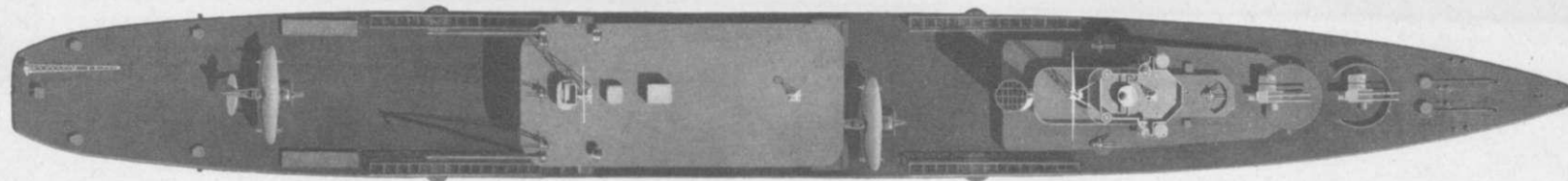
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943



HEIGHT OF OBSERVER



LENGTH—597'5" OA
BEAM— 61'8"
DRAFT— 19' (MAXIMUM)



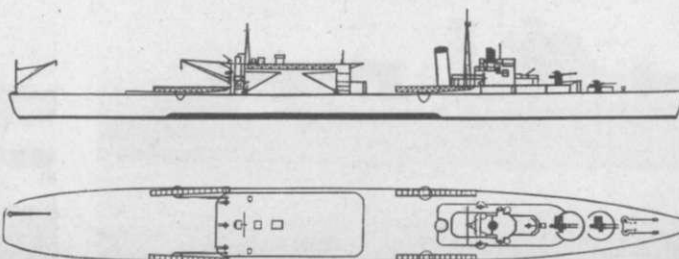
DISPLACEMENT—9,000 TONS (STANDARD)

ARMAMENT

	MAX. ELEV.	MAX. RANGE (HORIZONTAL)	MAX. RANGE (VERTICAL)
4-5" (50) AA	85°	19,000 YARDS	33,000 FEET
12 AAMG (TWIN)			
4 CATAPULTS, 16 SCOUT OBSERVATION			

PROPULSION

MACHINERY—	GEARED TURBINES
BOILERS—	TWO KAMPONS
FUEL—	OIL, 1,000 TONS
DESIGNED H. P.—	15,000
DESIGNED SPEED—	20 KNOTS
ENDURANCE—	11,000 MILES @ 10 KNOTS
	2,700 MILES @ 20 KNOTS



CHITOSE CLASS—



CHITOSE—CVS 3



CHIYODA—CVS 4



CHITOSE CLASS—CVS 3, 4

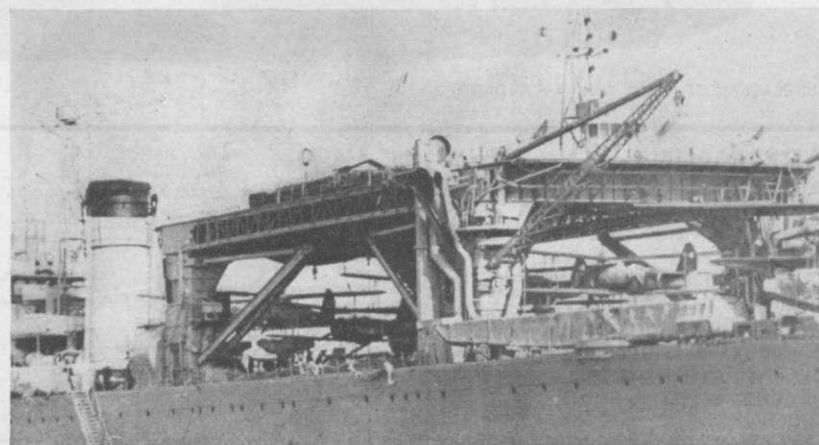
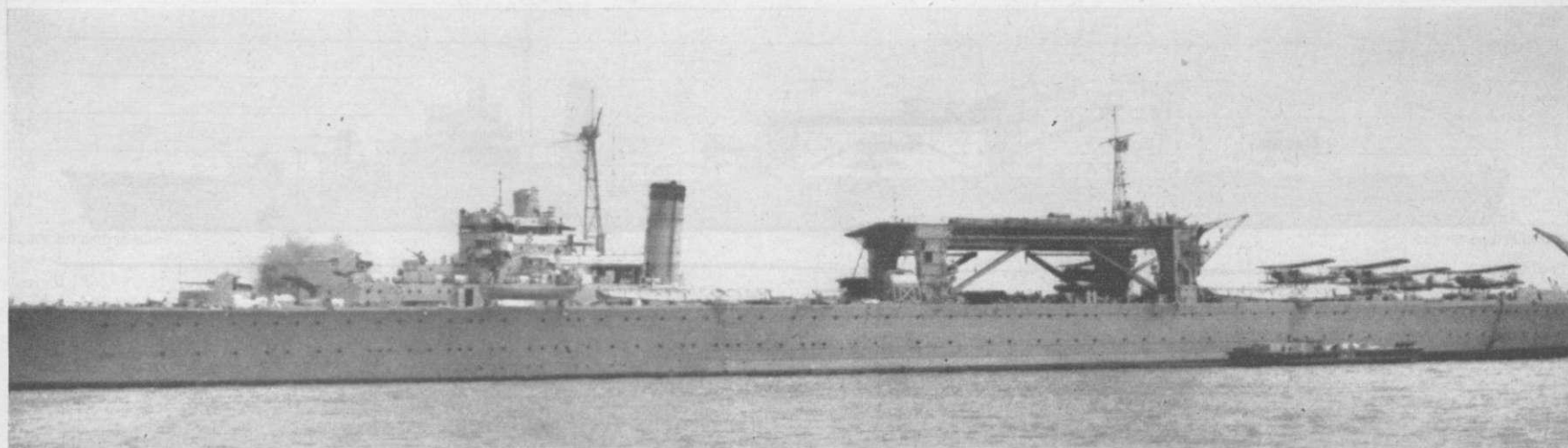
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943

CHITOSE—CVS 3
CHIYODA—CVS 4

BEGUN
11/26/34
12/14/36

COMPLETED
1/7/38
1938

ONI 41-42
RESTRICTED



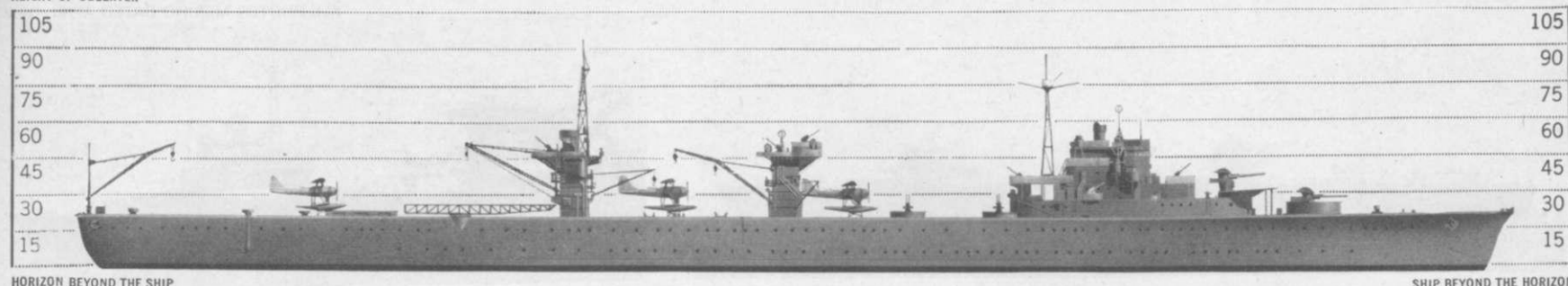
ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

MIZUHO CLASS—CVS 5-7



DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943

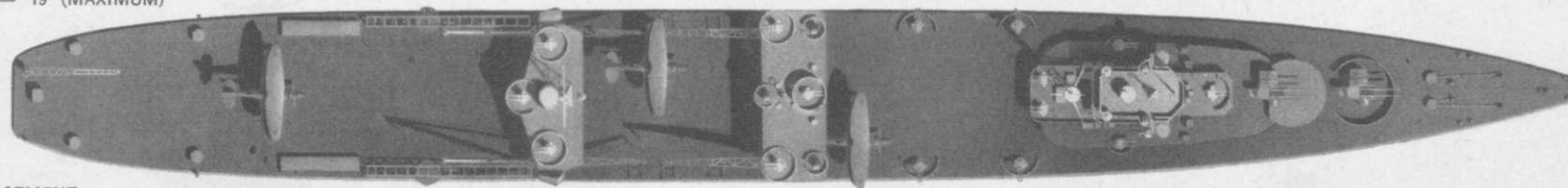
HEIGHT OF OBSERVER



HORIZON BEYOND THE SHIP

SHIP BEYOND THE HORIZON

LENGTH—597'6" OA
BEAM— 61'8"
DRAFT— 19' (MAXIMUM)



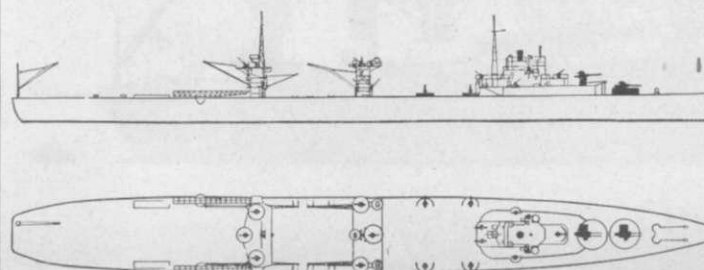
DISPLACEMENT
9,000 TONS (STANDARD)

ARMAMENT

	MAX. ELEV.	MAX. RANGE (HORIZONTAL)	MAX. RANGE (VERTICAL)
4-5" (50) AA TWINS	85°	19,000 YARDS	33,000 FEET
12 AAMG TWINS			
4 CATAPULTS, 20 SCOUT OBSERVATION			

PROPULSION

MACHINERY—	GEARED TURBINES
BOILERS—	TWO KAMPONS
FUEL—	OIL, 1,000 TONS
DESIGNED HP—	15,000
DESIGNED SPEED—	20 KNOTS
ENDURANCE—	11,000 MILES @ 10 KNOTS
	2,700 MILES @ 20 KNOTS



MIZUHO CLASS



MIZUHO—CVS 5



NISSHIN—CVS 6



AKITSUSHIMA—CVS 7



MIZUHO CLASS—CVS 5-7

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943

MIZUHO—CVS5
NISSHIN—CVS6
AKITSUSHIMA—CVS7

BEGUN

1937

1937

BELIEVED BEGUN 1940

COMPLETED

2/25/39

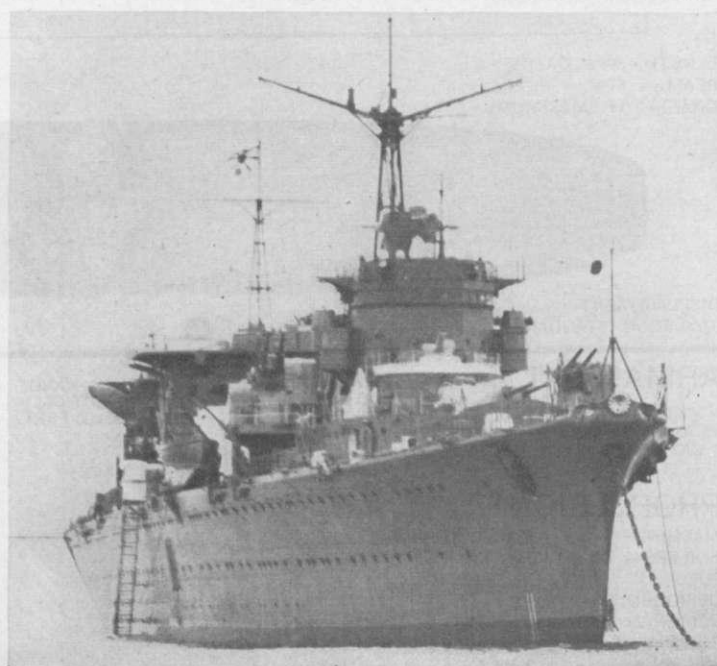
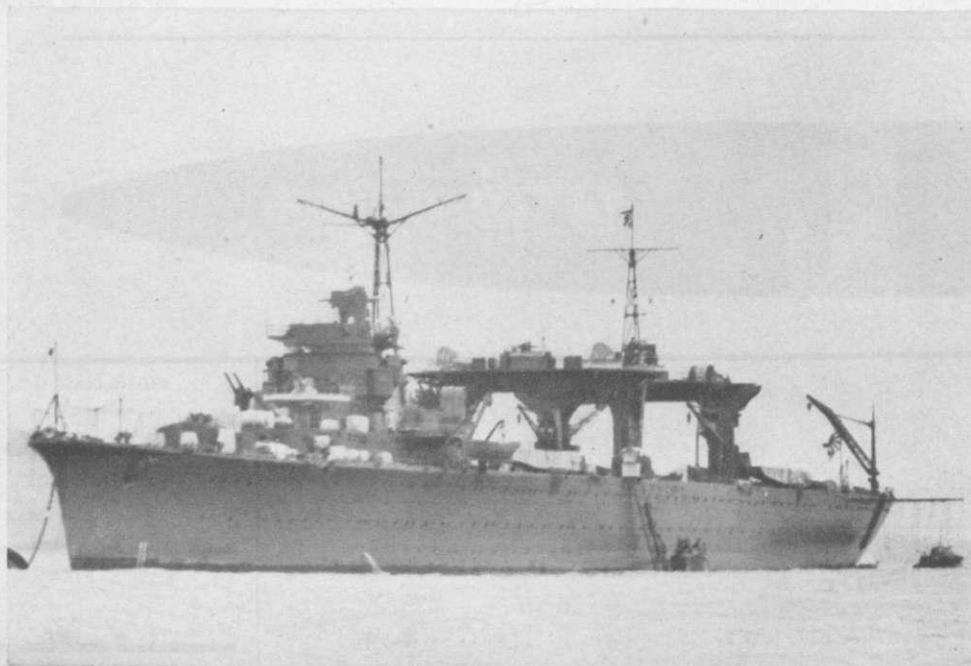
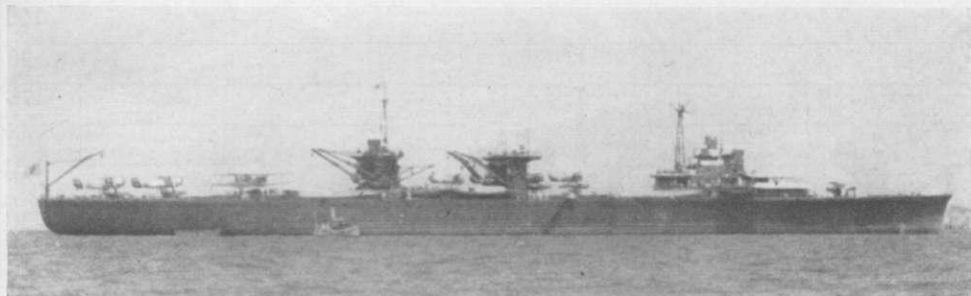
1941

1942

ONI 41-42

RESTRICTED

ALL PHOTOS MIZUHO DATED APRIL, 1940.



ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

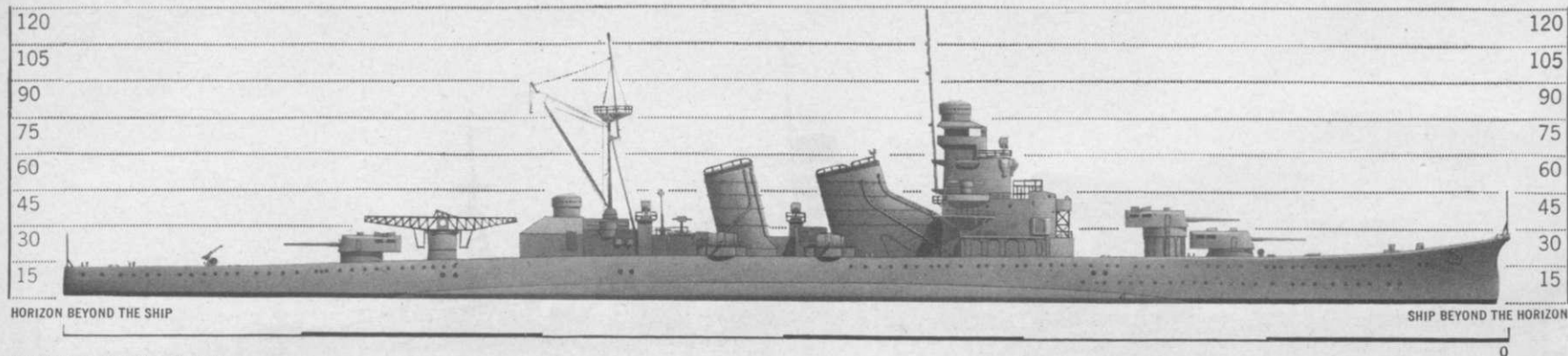
AOBA KINUGASA

AOBA CLASS—CA3-4



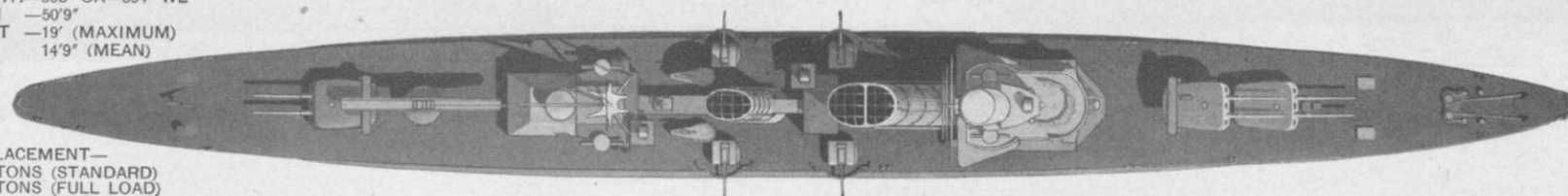
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—DECEMBER, 1942

HEIGHT OF OBSERVER

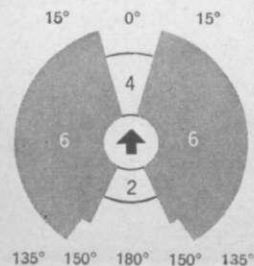


LENGTH—598' OA—594' WL
BEAM —50'9"
DRAFT —19' (MAXIMUM)
14'9" (MEAN)

DISPLACEMENT—
7100 TONS (STANDARD)
7500 TONS (FULL LOAD)



DENSITY OF FIRE
MAIN BATTERY



ARMAMENT

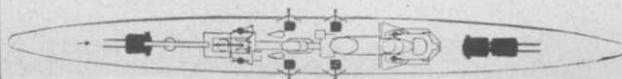
6-8" 50 CAL TWIN TURRETS
4-4.7 50 CAL AA—SINGLE MOUNTS
12-21" TORPEDO TUBES—TWIN MOUNTS
1 CATAPULT—2 SEAPLANE SCOUTS
50 MINES—MOORED TYPE

MAX. ELEV.

35°

RANGE

32,600 YD.
21,000 YD.

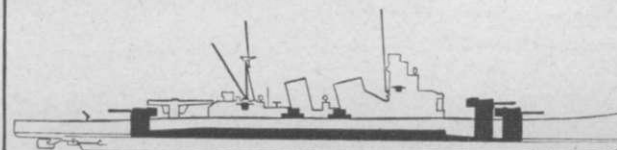


PROTECTION

BELT—2"-3"
TURRETS—1"
BARBETTES—
CONNING TOWER—
DECK—2" (OVER VITALS)

PROPULSION

MACHINERY—4 GEARED TURBINES
BOILERS—12 KAMPON
FUEL—OIL—1800 TONS
DESIGNED HP—95,000
DESIGNED SPEED—33 KTS
ENDURANCE—1120 @ 33 KTS
5040 @ 15 KTS



KNOTS RPM

.....420
.....400
33.....370
.....350
.....300
.....275
.....250
.....245
.....240
.....220
.....200
.....160
.....150
.....120
.....80



AOBA CLASS—CA3-4

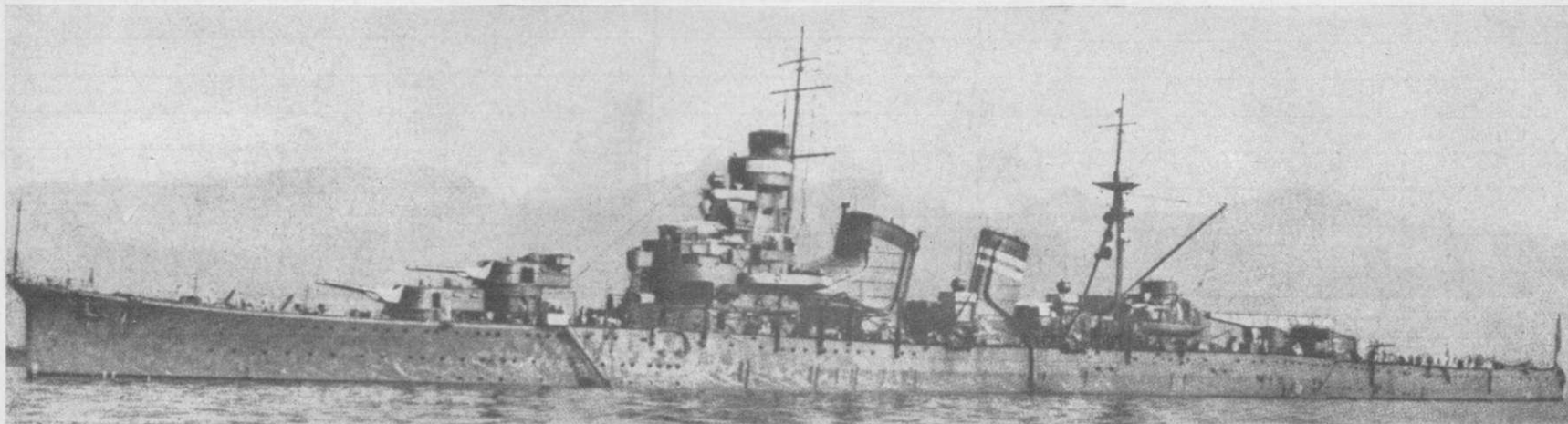
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—OCTOBER, 1942

BEGUN
AOBA — 2/4/24
KINUGASA — 1/23/24

COMPLETED
9/20/27
9/30/27

ONI 41-42

RESTRICTED



1933 ↑



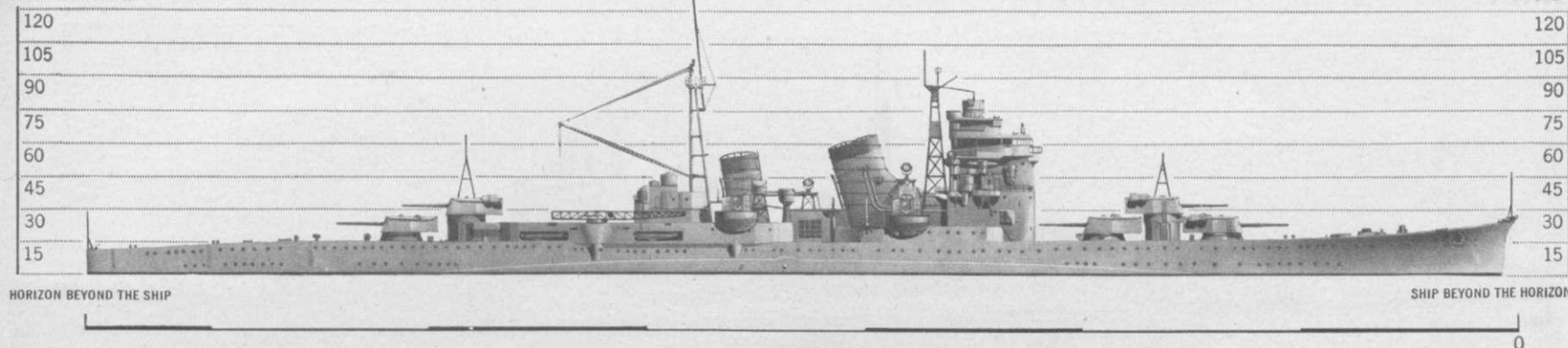
ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57
HEIGHT OF OBSERVER

NACHI (NATI)—HAGURO—MYOKO—ASHIGARA (ASIGARA)

NACHI CLASS—CA5-8

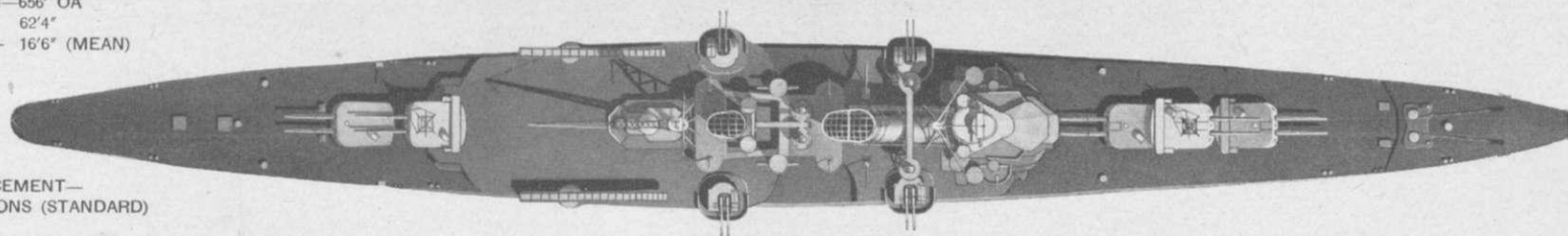


DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—OCTOBER, 1942



LENGTH—656' OA
BEAM— 62'4"
DRAFT— 16'6" (MEAN)

DISPLACEMENT—
10,000 TONS (STANDARD)



DENSITY OF FIRE
MAIN BATTERY 7

46° 21° 0° 21° 46°



135° 156° 180° 156° 135°

ARMAMENT

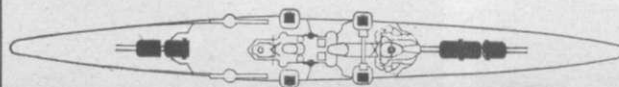
10-8" 50 CAL TWIN TURRETS
8-4.7 50 CAL AA TWIN SHIELD MOUNTS
8-21" TORPEDO TUBES—(TWIN MOUNTS)
2 CATAPULTS—4 SEAPLANE SCOUTS
DEPTH CHARGES CARRIED

MAX. ELEV.

35°
85°

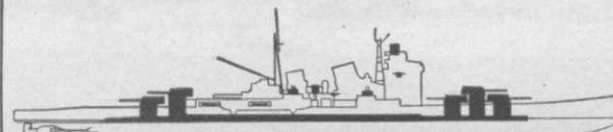
RANGE

32,600 YD.
21,000 YD.



PROTECTION

BELT— 3"-4"
TURRETS—
BARBETTES—
CONNING TOWER—3"
DECK— 1 1/4"-2"-3" (OVER VITALS)



KNOTS RPM

420
400
350
300
275
250
245
240
220
200
160
150
120
80

DES HP—100,000
DES SPD—33 KTS
ENDURANCE—
2800 @ 33 KTS
10,000 @ 15 KTS



NACHI CLASS—CA5-8

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—OCTOBER, 1942

	BEGUN	COMPLETED			
NACHI—	CA5 11/26/24	11/26/28	MYOKO—	CA7 10/25/24	7/31/29
HAGURO—	CA6 3/16/25	4/25/29	ASHIGARA—	CA8 4/11/25	8/20/29

ONI 41-42

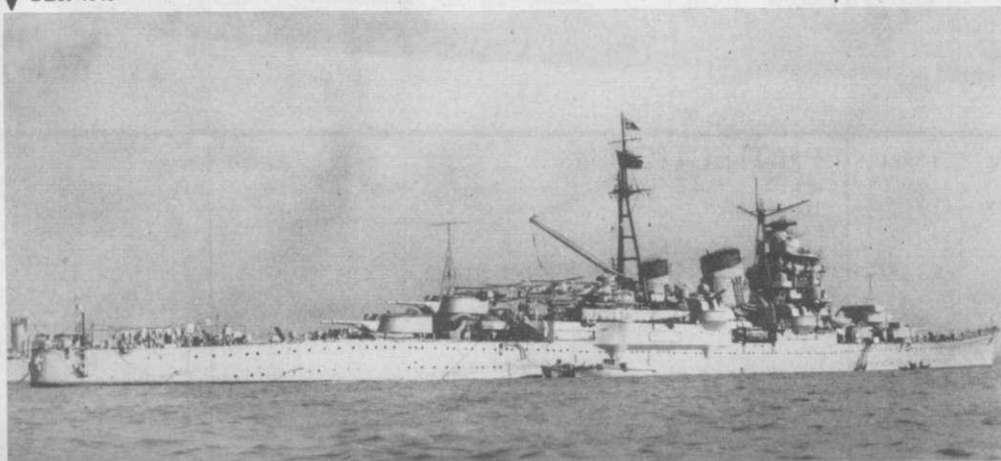
RESTRICTED



↓ DEC. 1940

↑ DEC. 1940

↓ MAY 1938



ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

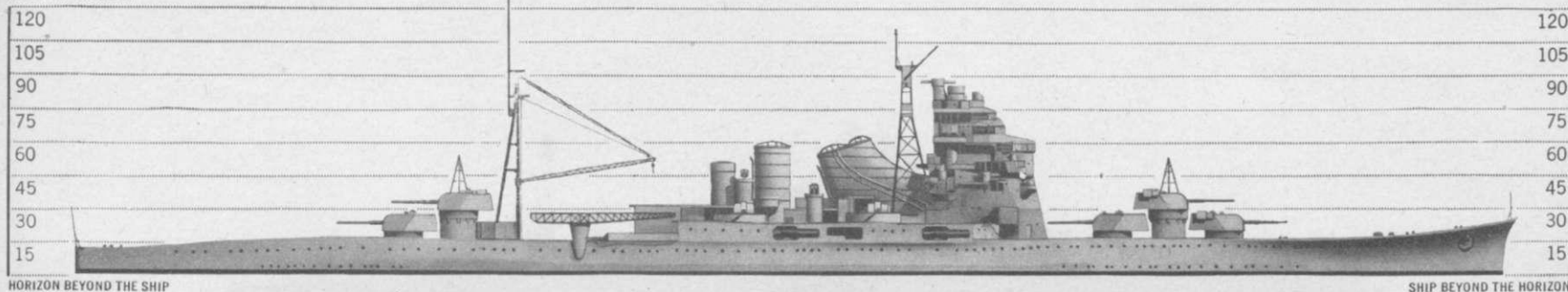
ATAGO-TAKAO

ATAGO CLASS—CA9-10



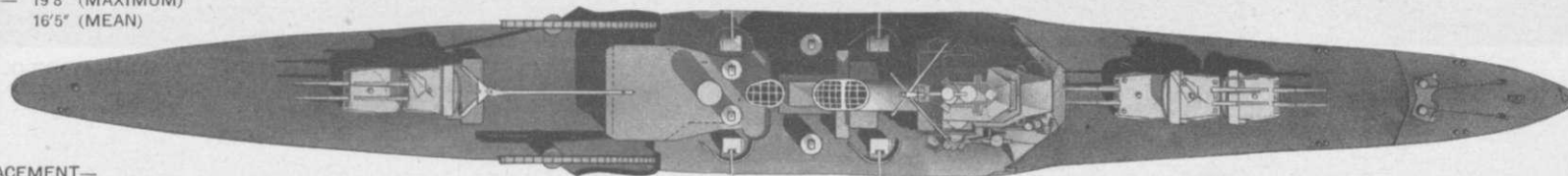
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—OCTOBER, 1942

HEIGHT OF OBSERVER

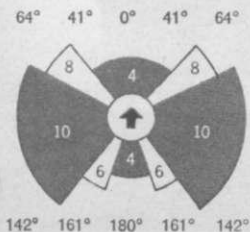


LENGTH—657'0" OA—650'0" WL
BEAM— 62'4"
DRAFT— 19'8" (MAXIMUM)
16'5" (MEAN)

DISPLACEMENT—
9,850 TONS (STANDARD)



DENSITY OF FIRE
MAIN BATTERY



ARMAMENT

10-8" 50 CAL TWIN TURRETS
4-4"7 50 CAL AA
8-21" TORPEDO TUBES
2 CATAPULTS—4 SEAPLANE SCOUTS

IT IS REPORTED THAT THE 4-4"7 BATTERY IS TO
BE REPLACED BY 8-4"7 50 CAL AA GUNS IN TWIN
SHIELD MOUNTS

MAX. ELEV.

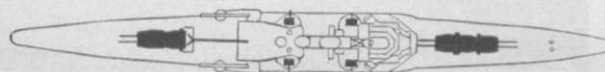
35°

85°

RANGE

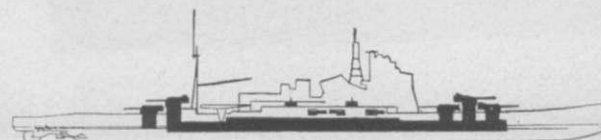
32,600 YD.

21,000 YD.



PROTECTION

BELTS— 3"-4"
TURRETS— 3"
BARBETTES— 2 1/4"-3 1/2"
CONNING TOWER—
DECK— 3"-5"



KNOTS RPM

.....	420
.....	400
.....	350
.....	300
.....	275
.....	250
.....	245
.....	220
.....	200
.....	160
.....	150
.....	120
.....	80

DES SPEED 33 KTS
DES HP 100,000



ATAGO CLASS—CA9-10

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—OCTOBER, 1942

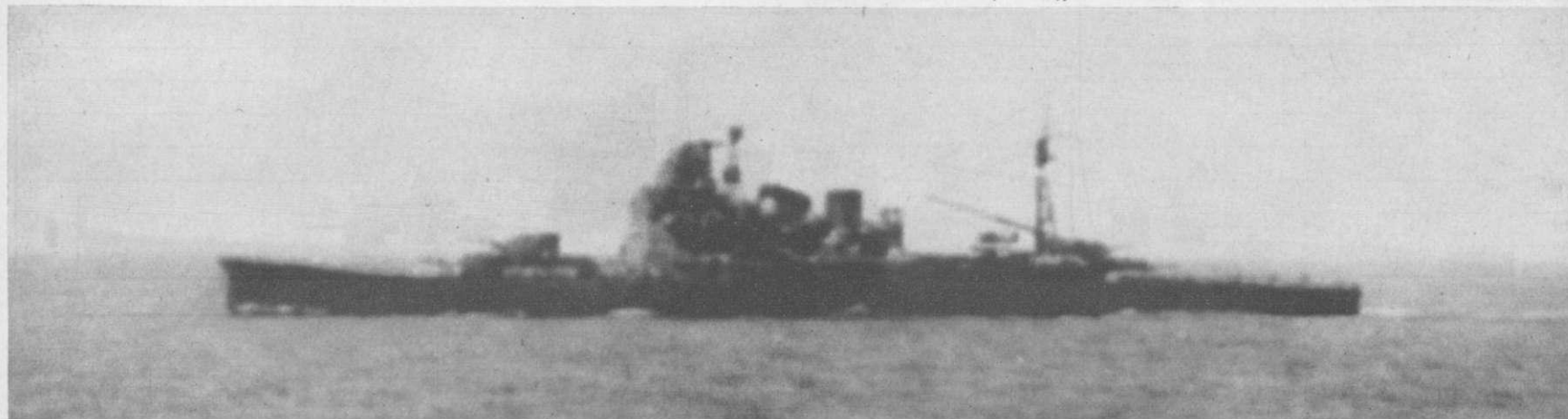
ATAGO—CA9
TAKAO—CA10

	BEGUN	COMPLETED
ATAGO—CA9	4/28/27	3/30/32
TAKAO—CA10	4/28/27	5/31/32

TWO OTHER UNITS—CHOKAI (TYOKAI), MAYA—RETAIN ORIGINAL PROFILE

ONI 41-42

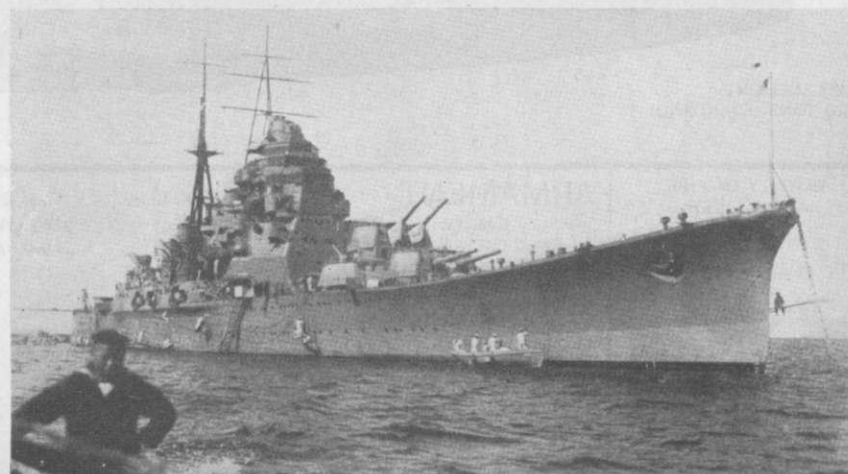
RESTRICTED



1941 ↓

TAKAO—1941 ↑

↓ ATAGO OLD RIG



ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

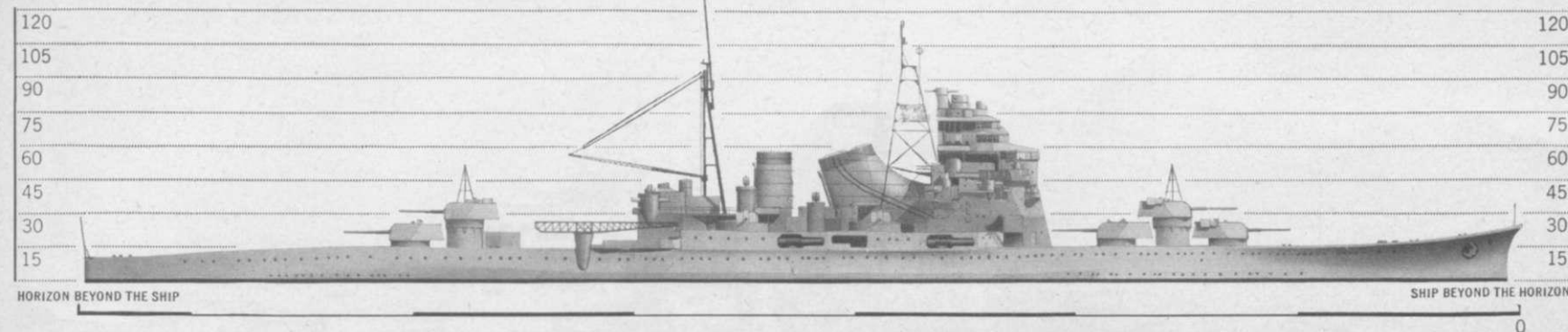
CHOKAI (TYOKAI)—MAYA

ATAGO CLASS—CA11-12



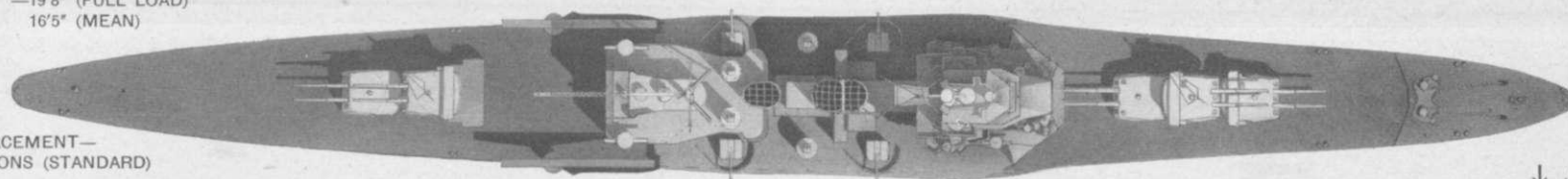
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—OCTOBER, 1942

HEIGHT OF OBSERVER



LENGTH—657'0" OA—650'0" WL
BEAM —62'4"
DRAFT —19'8" (FULL LOAD)
16'5" (MEAN)

DISPLACEMENT—
9,850 TONS (STANDARD)



↓ JUNE, 1940

ARMAMENT

10-8" 50 CAL TWIN TURRETS
4-4.7 50 CAL AA SINGLE SHIELD MOUNTS
8-21" TORPEDO TUBES
2 CATAPULTS—4 SEAPLANE SCOUTS

MAX. ELEV.

RANGE

35°

32,600

85°

21,000

PROTECTION

BELT —3"-4"
TURRETS —3"
BARBETTES—2½"-3½"
DECK —3"-5"

PROPULSION

MACHINERY —8 GEARED TURBINES
FUEL —OIL—2400 TONS
DESIGNED HP —100,000
DESIGNED SPD.—33 KTS.





ATAGO CLASS-CA 11-12

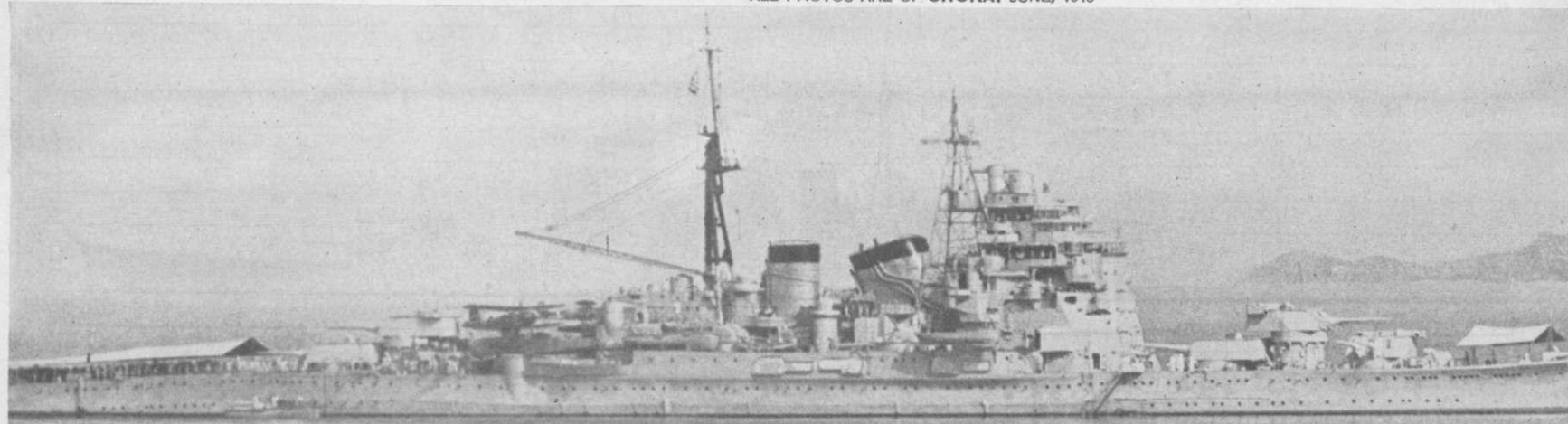
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—AUGUST, 1943

CHOKAI (TYOKAI)—CA11
MAYA —CA12
ALL PHOTOS ARE OF CHOKAI JUNE, 1940

BEGUN
3/26/28
12/4/28

COMPLETED
6/20/32
6/30/32

ONI 41-42



ONI 41-42 RESTRICTED

CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

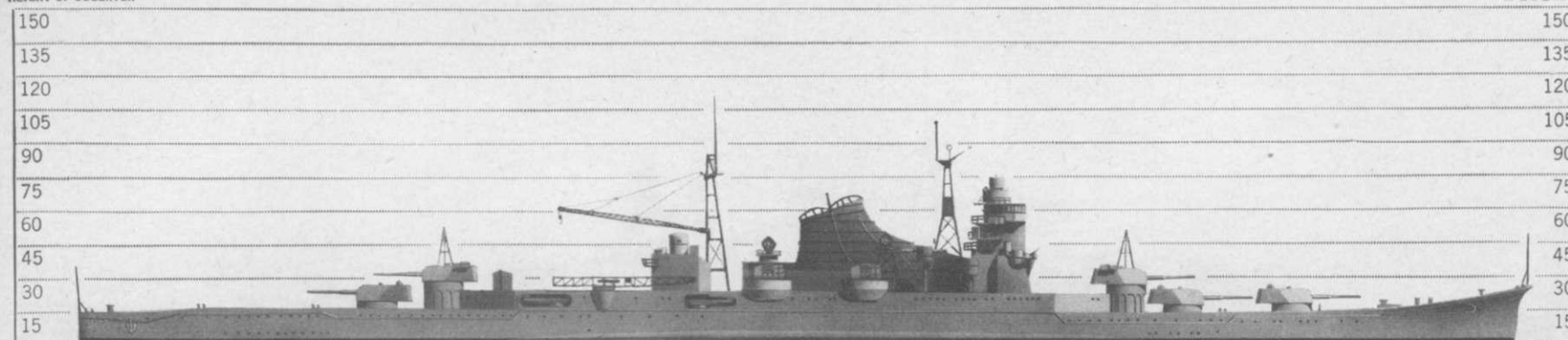
MOGAMI—SUZUYA—KUMANO

MOGAMI CLASS—CA 13-16



DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—OCTOBER, 1942

HEIGHT OF OBSERVER

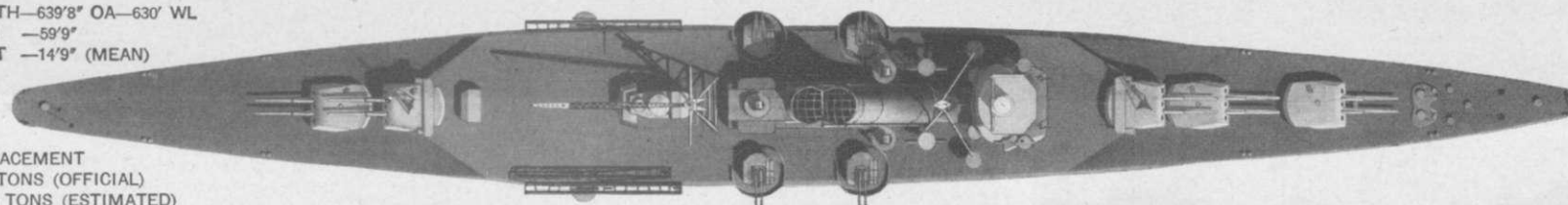


HORIZON BEYOND THE SHIP

SHIP BEYOND THE HORIZON

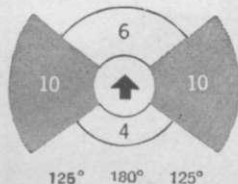
LENGTH—639'8" OA—630' WL
BEAM —59'9"
DRAFT —14'9" (MEAN)

DISPLACEMENT
8,500 TONS (OFFICIAL)
14,000 TONS (ESTIMATED)



DENSITY OF FIRE
MAIN BATTERY

55° 0° 55°



ARMAMENT

10-8" 50 CAL TWIN TURRETS
8-5" 50 CAL AA TWIN SHIELD MOUNTS
4-3" 40 CAL AA (REPORTED)
12-21" TORPEDO TUBES (TRIPLE MOUNTS)
2 CATAPULTS—4 SEAPLANE SCOUTS
DEPTH CHARGES CARRIED

MAX. ELEV.

35°

85°

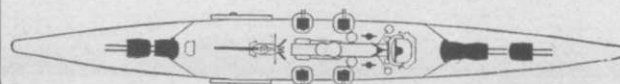
85°

RANGE

32,600 YD.

18,000 YD.

9,000 YD.



PROTECTION PROPULSION

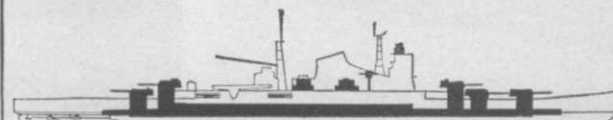
BELT—2½"
TURRETS—
BARBETTES—
CONNING TOWER—
DECKS—2"
(OVER VITALS)

MACHINERY—4 (MAIN)—2 (CRUISING)
GEARED TURBINES
BOILERS—8 OR 10 KAMPON
FUEL—OIL—2400 TONS
DESIGNED HP—90,000
DESIGNED SPEED—33 KTS
ENDURANCE—2,800 @ 33 KTS
10,000 @ 15 KTS

KNOTS

RPM

.....	420
.....	400
.....	350
.....	300
33	290
.....	275
.....	250
.....	245
.....	240
.....	220
.....	200
.....	160
.....	150
.....	120
.....	80





MOGAMI CLASS—CA13-16

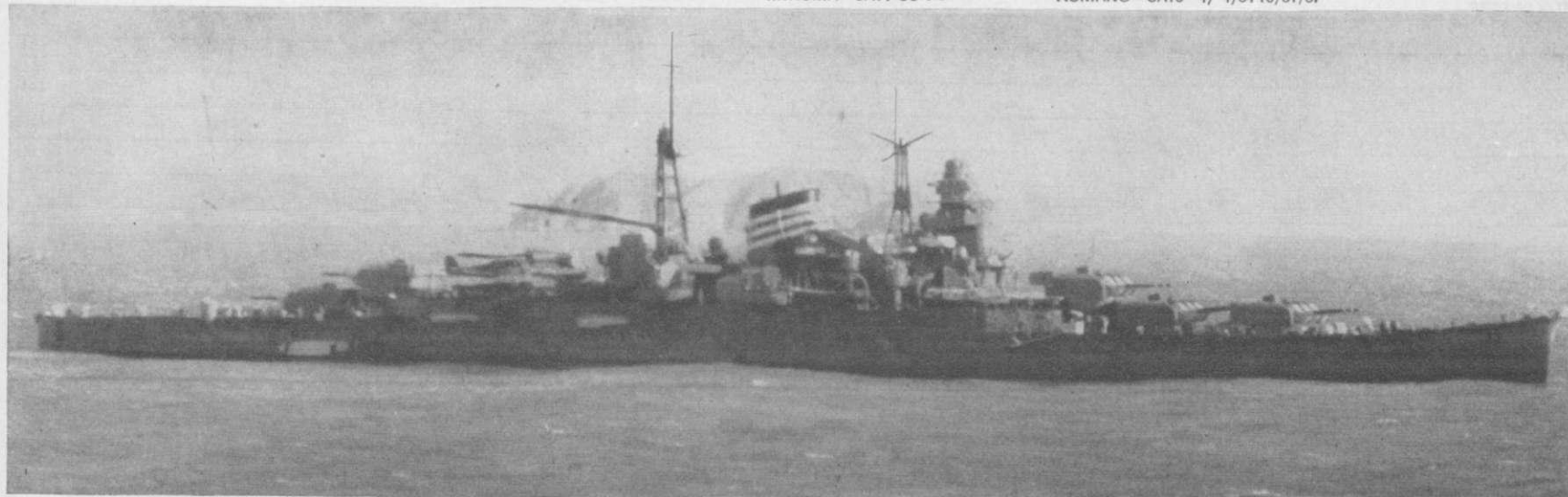
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—OCTOBER, 1942

BEGUN COMPLETED

MOGAMI—CA13	10/27/31	7/28/35	SUZUYA —CA15	12/11/33	1936
MIKUMA—CA14	SUNK		KUMANO—CA16	4/ 4/34	10/31/37

ONI 41-42

RESTRICTED



KUMANO—DEC. 19, 1938 ↓

SUZUYA—DEC. 19, 1938 ↑

KUMANO—OCT. 1938 ↓



PHOTOS SHOW OLD TRIPLE TURRETS, PREVIOUS TO 1938-39 REFIT

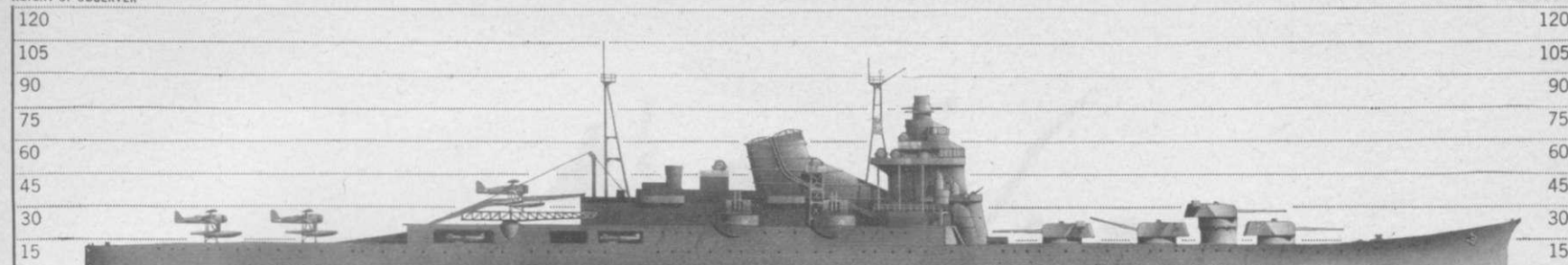
ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

TONE CLASS—CA17, 18



DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943

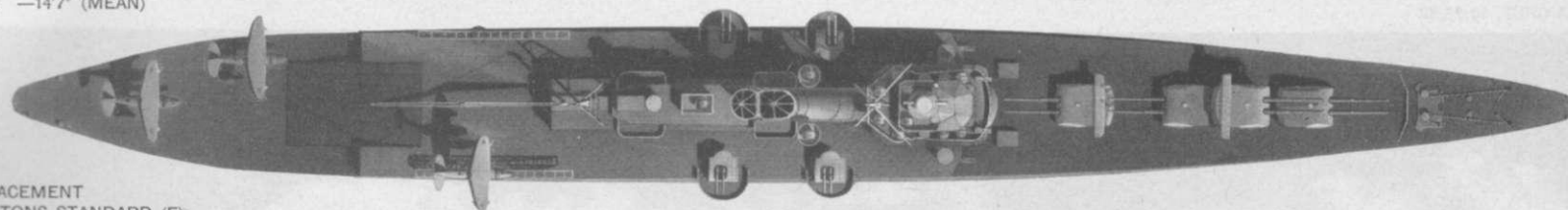
HEIGHT OF OBSERVER



HORIZON BEYOND THE SHIP

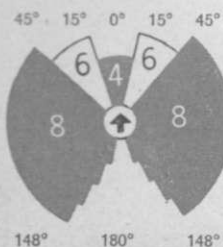
SHIP BEYOND THE HORIZON

LENGTH—658' (E) OA—614'3" WL
BEAM— 65' (E)
DRAFT —14'7" (MEAN)



DISPLACEMENT
12,000 TONS STANDARD (E)

DENSITY OF FIRE
MAIN BATTERY



ARMAMENT

8-8" (50) 45°?
8-5" (50) AA 85°
8-3" (40) AA (?) 85°
6 SCOUT OBSERVATION; 2 CATAPULTS
12-24" TORPEDO TUBES

MAX. ELEV.

RANGE
32,800 YD.
19,000 YD.
9,000 YD.

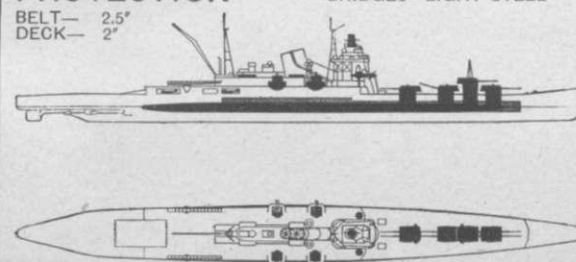
PROPULSION

MACHINERY— FOUR GEARED TURBINE ENGINES
BOILERS— EIGHT KAMPON
FUEL— OIL, 2,400 TONS
DESIGNED HP— 90,000
CRUISING SPEED— 15 KNOTS
MAXIMUM SPEED— 33 KNOTS
PROPELLERS— FOUR
SEARCHLIGHTS— THREE

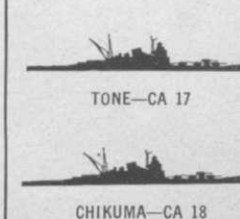
PROTECTION

BELT— 2.5"
DECK— 2"

BRIDGES—LIGHT STEEL



TONE CLASS



TONE—CA 17

CHIKUMA—CA 18



TONE CLASS—CA 17, 18

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943

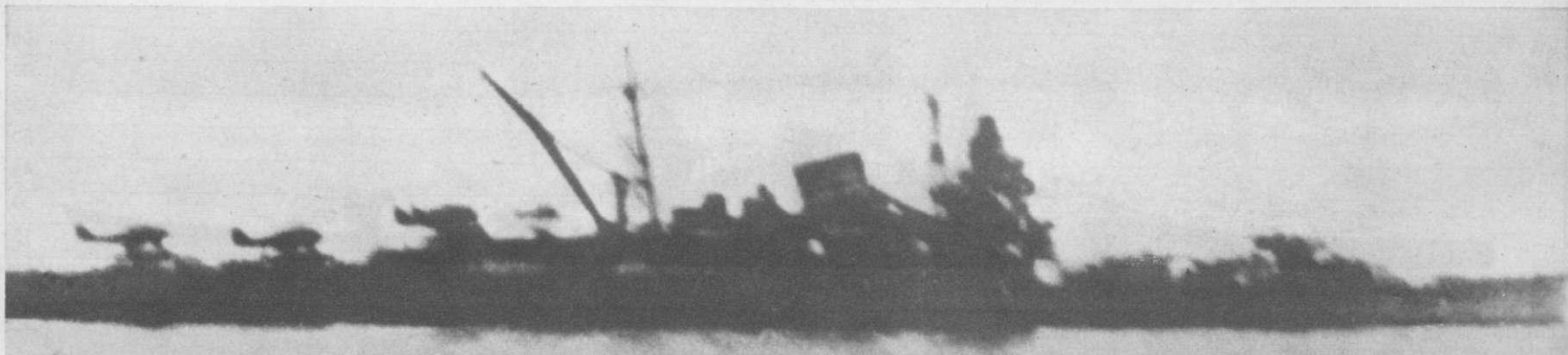
TONE— CA17
CHIKUMA—CA18

BEGUN
12/1/34
10/1/35

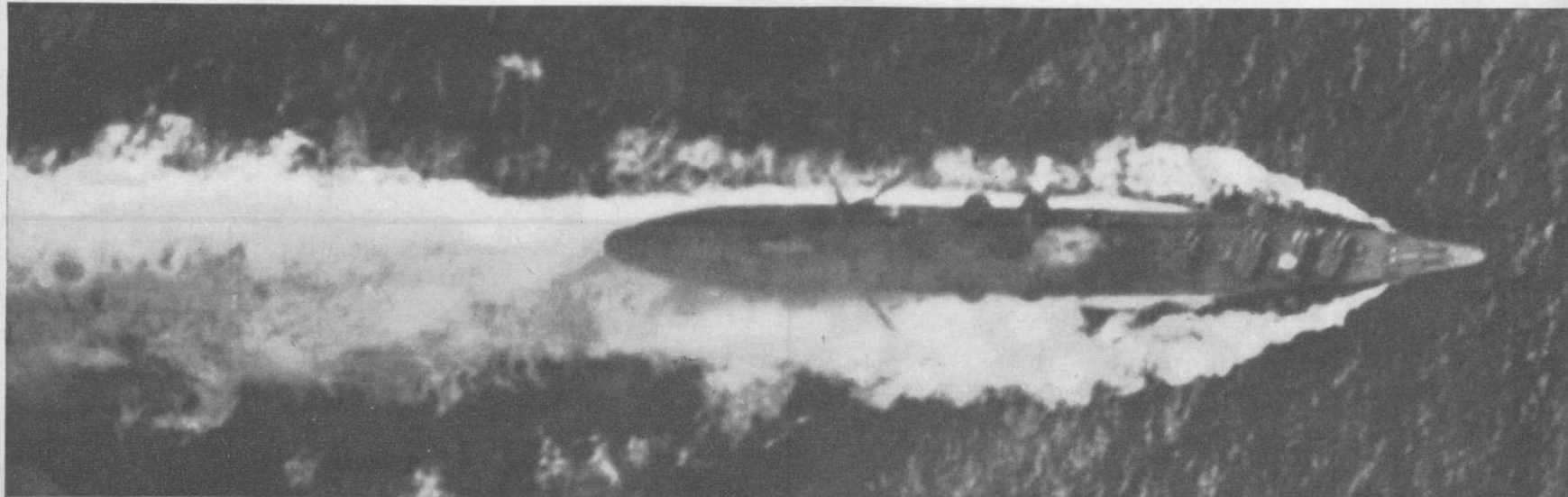
COMPLETED
11/20/38
3/7/39

ONI 41-42

RESTRICTE



↓ SANTA CRUZ, 10/26/42



ONI 41-42

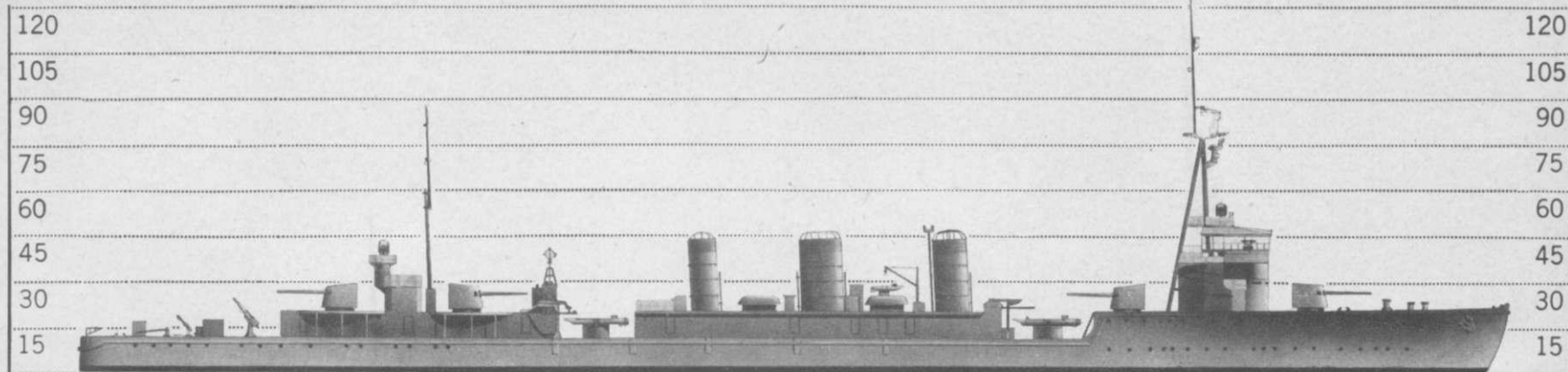
RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

TENRYU CLASS—CL 1, 2

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—DECEMBER, 1942



HEIGHT OF OBSERVER



HORIZON BEYOND THE SHIP

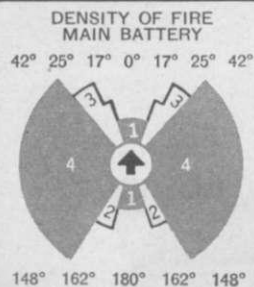
SHIP BEYOND THE HORIZON

LENGTH—468' OA
BEAM —40'9"
DRAFT —13'3" (NORMAL)

0



DISPLACEMENT—3,230 TONS (STANDARD)—3,500 TONS (NORMAL)



ARMAMENT

MAX. ELEV.

4-5:5 (50) 25°
1-3: (40) 85°
6-21" TORPEDO TUBES, TRIPLE MOUNTS
DEPTH CHARGES AND MINES CARRIED

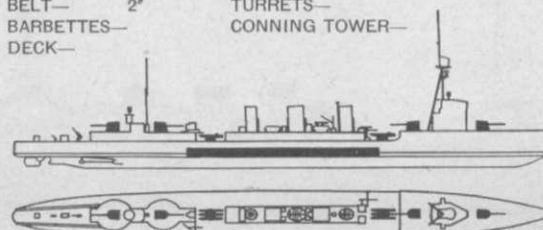
RANGE

19,000 YD.
9,000 YD.

PROTECTION

BELT— 2"
BARBETTES—
DECK—

TURRETS—
CONNING TOWER—



TENRYU CLASS



TENRYU—CL 1



TATSUTA—CL 2

PROPULSION

MACHINERY— CURTIS-PARSONS
BOILERS— 10 KAMPON
FUEL— COAL AND OIL, 900 TONS
DESIGNED HP— 51,000
DESIGNED SPEED— 31 KNOTS; 33 KNOTS ON TRIAL
ENDURANCE— 1,250 @ 31 KNOTS
6,000 @ 10 KNOTS



TENRYU CLASS—CL 1, 2

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—DECEMBER, 1942

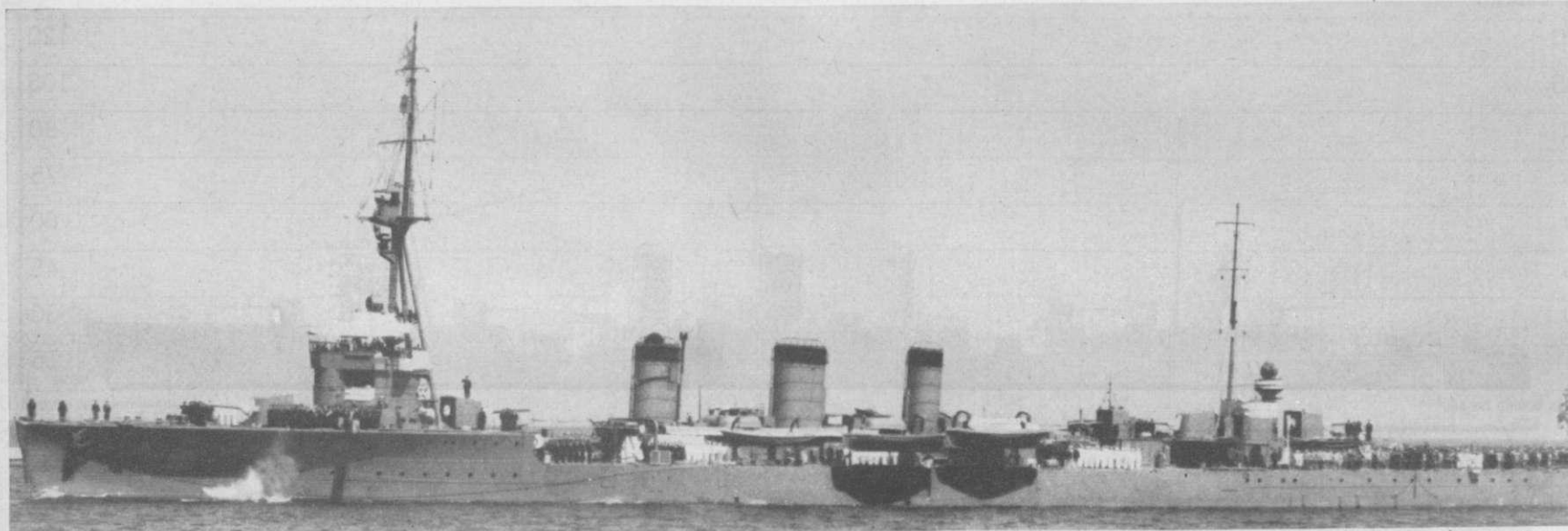
TENRYU —CL1
TATSUTA—CL2

BEGUN
5/17/17
7/24/17

COMPLETED
11/20/19
3/31/19

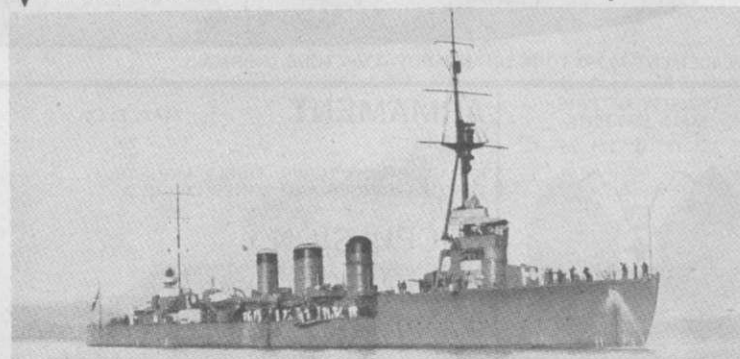
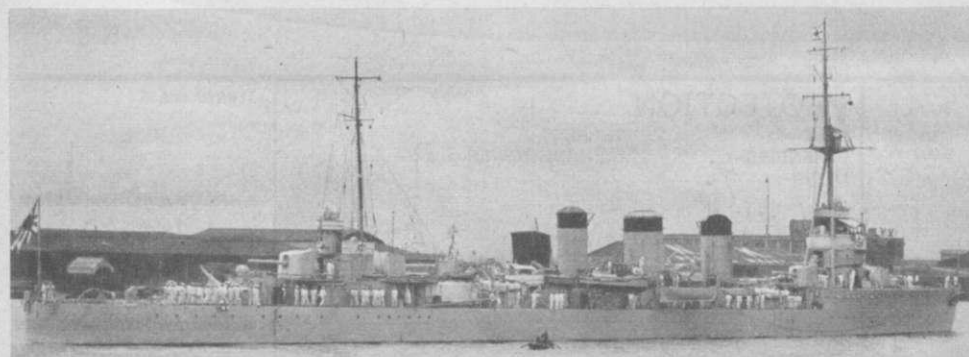
ONI 41-42

RESTRICTED



↓ TATSUTA—6/21/35

↑ TENRYU—1935



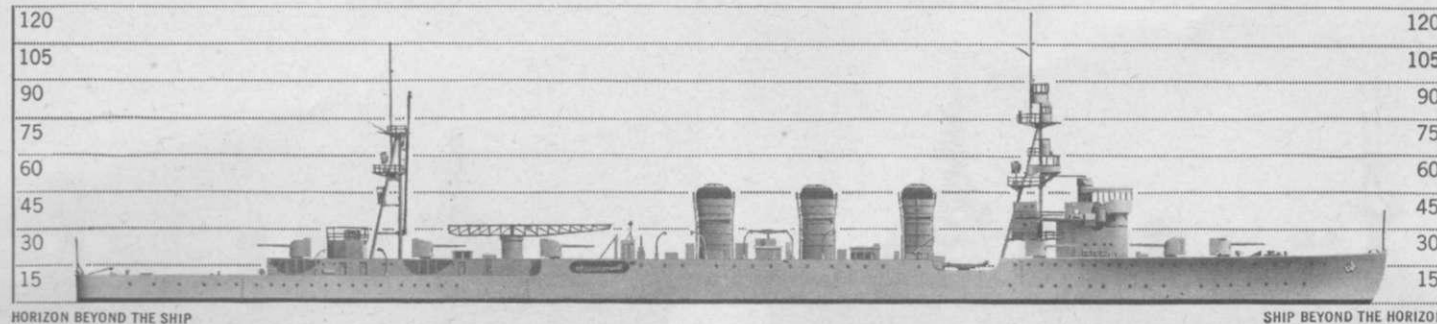
ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

KUMA CLASS—CL3-7

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—OCTOBER, 1942



HEIGHT OF OBSERVER

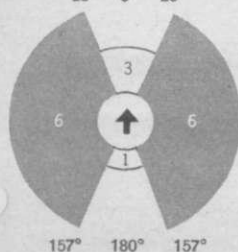


LENGTH—535' OA—529' WL
BEAM —47'3"
DRAFT —15'9" (MEAN)



DISPLACEMENT
5,100 TONS (STANDARD)

DENSITY OF FIRE
MAIN BATTERY
23° 0° 23°

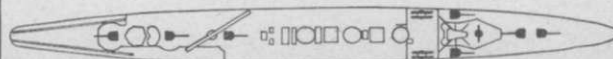


ARMAMENT

7-5.5 50 CAL
2-3.15 AA
8-21" TORPEDO TUBES TWIN MOUNTS
80 MINES—LAUNCHING TRACKS
1 CATAPULT—1 SEAPLANE SCOUT
24 DEPTH CHARGES—2 PROJECTORS

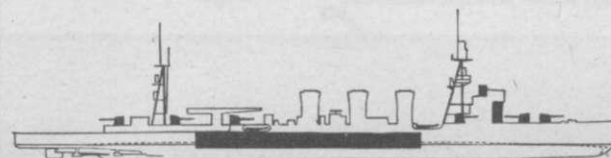
MAX. ELEV.
15°

RANGE
20,000 YD.



PROTECTION

BELT—1¼"
TURRETS—1" TO 1½"
CONNING TOWER—2"
DECK—2" OVER VITALS
UNDERWATER PROTECTION VERY GOOD



KNOTS RPM

33	439
40	420
45	400
50	350
55	300
60	275
65	250
70	245
75	240
80	220
85	200
90	160
95	150
100	120
105	80

DES. SPEED DES. HP
33 KTS 70,000



KUMA CLASS—CL3-7

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—OCTOBER, 1942

SISTER SHIPS

KUMA—CL3
TAMA—CL4

BEGUN

8/29/18
8/10/18

COMPLETED

8/31/20
1/29/21

KITAKAMI—CL5

KISO —CL6
OI —CL7

9/1 /19

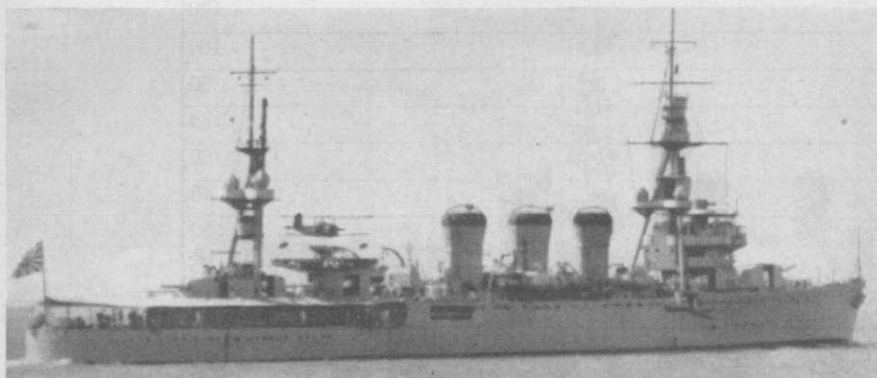
4/15/21

6/10/19
11/24/19

5/4 /21
1/29/21

ONI 41-42

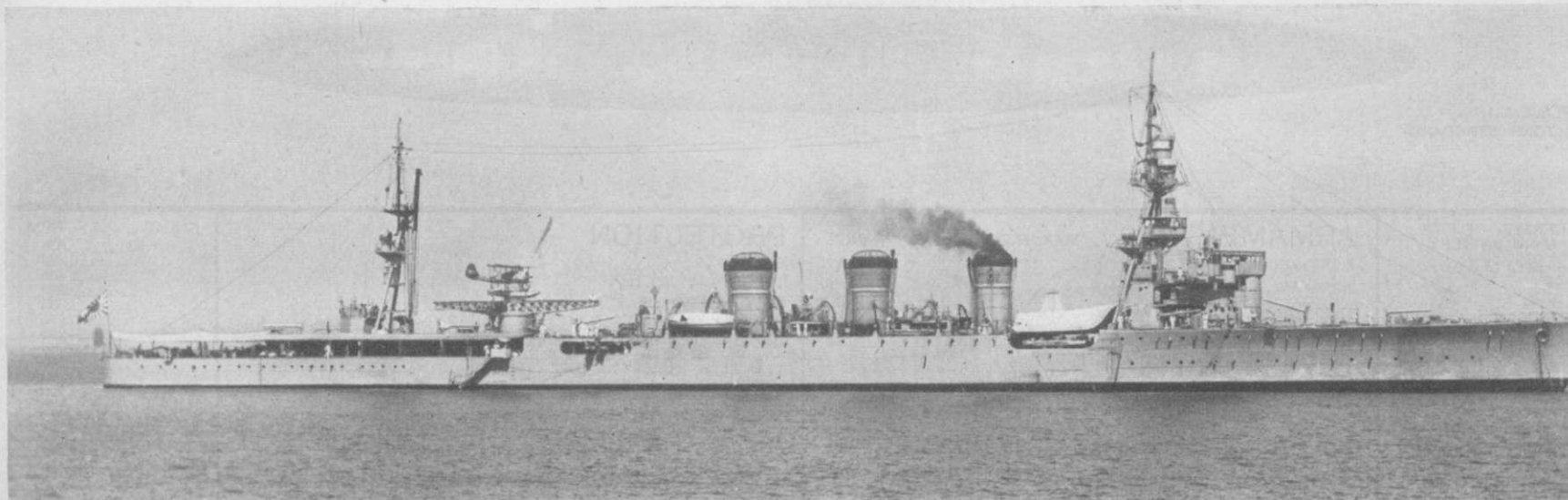
RESTRICTED



JUNE, 1935 ↓



1937 ↑



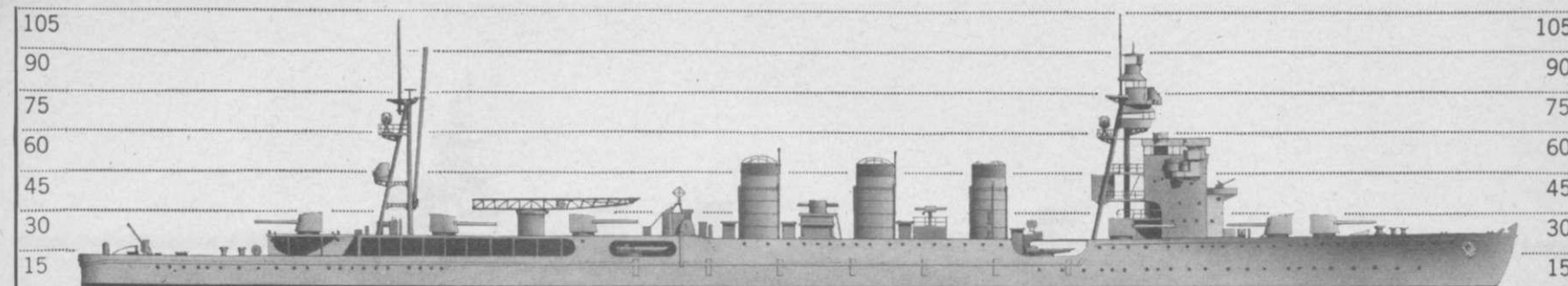
ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

NATORI CLASS—CL 8-13



DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—NOVEMBER, 1942

HEIGHT OF OBSERVER



HORIZON BEYOND THE SHIP

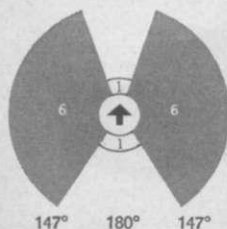
SHIP BEYOND THE HORIZON

LENGTH—535' OA
BEAM— 47'3"
DRAFT— 15'10½" (NORMAL)



DISPLACEMENT—
5,170 TONS (STANDARD)
5,570 TONS (NORMAL)

DENSITY OF FIRE
MAIN BATTERY
19° 0° 19°



ARMAMENT

7-5½ (50)
3-3" (40) AA
8-21" TORPEDO TUBES TWIN MOUNTS
80 MINES, 24 DEPTH CHARGES
1 CATAPULT, 1 SCOUT OBSERVATION

MAX. ELEV.

30°

85°

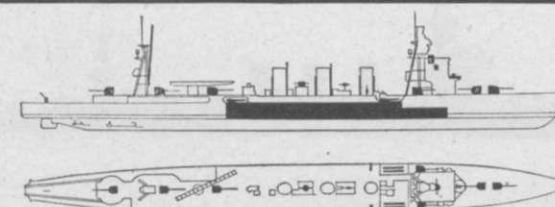
RANGE

19,000 YD.

9,000 YD.

PROPULSION

MACHINERY—4 CURTIS-PARSONS BOILERS—8 OIL, 4 COAL
FUEL— COAL—300 TONS; OIL—1,260 TONS
DESIGNED HP— 90,000 ENDUR.—1,500 @ 33 KNOTS
DESIGNED SPEED—33 KNOTS 8,500 @ 10 KNOTS



PROTECTION

BELT—2" TURRETS—
CONNING TOWER—2" BARBETTES—
DECK—2"

6—NATORI CLASS



NATORI —CL 8

NAGARA —CL 9

KINU —CL 10

YURA —CL 11

ISUZU —CL 12

ABUKUMA —CL 13



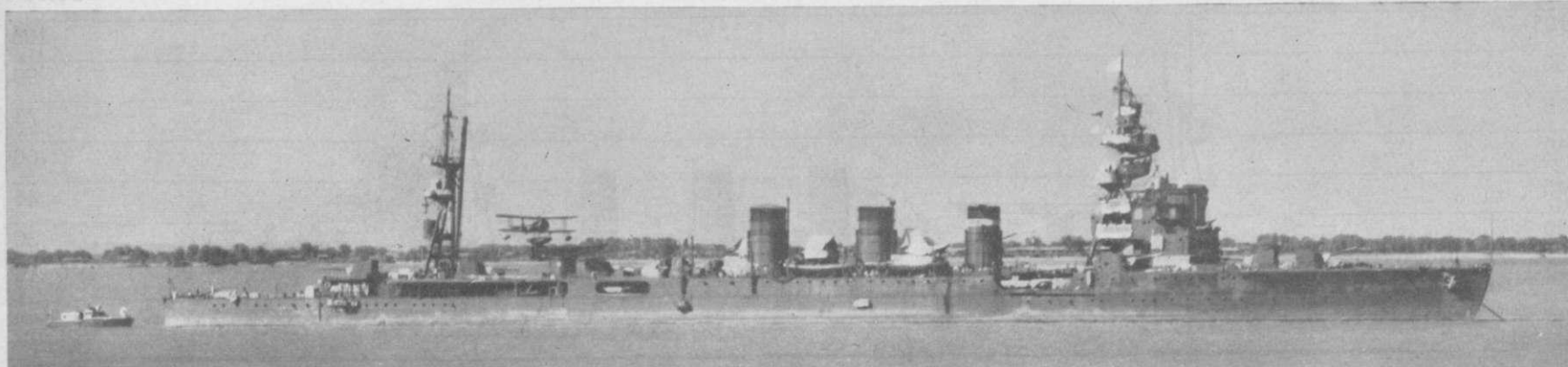
NATORI CLASS—CL8-13

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—NOVEMBER 1942

		BEGUN	COMPLETED						
NATORI	CL 8	12/14/20	9/15/22	YURA	CL11	5/21/21	3/20/23		
NAGARA	CL 9	9/9/20	4/21/22	ISUZU	CL12	8/10/20	8/15/23		
KINU	CL10	1/17/21	11/10/22	ABUKUMA	CL13	1/8/21	5/26/25		

ONI 41-42

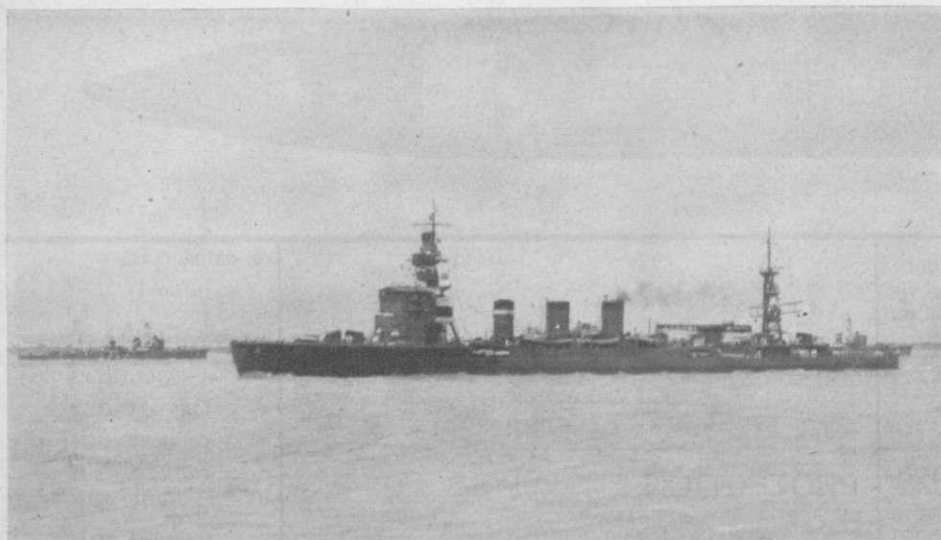
RESTRICTED



SEVERAL OF THIS CLASS ARE REPORTED SUNK

↑ YURA 1937 ↓

NAGARA 1937 ↓

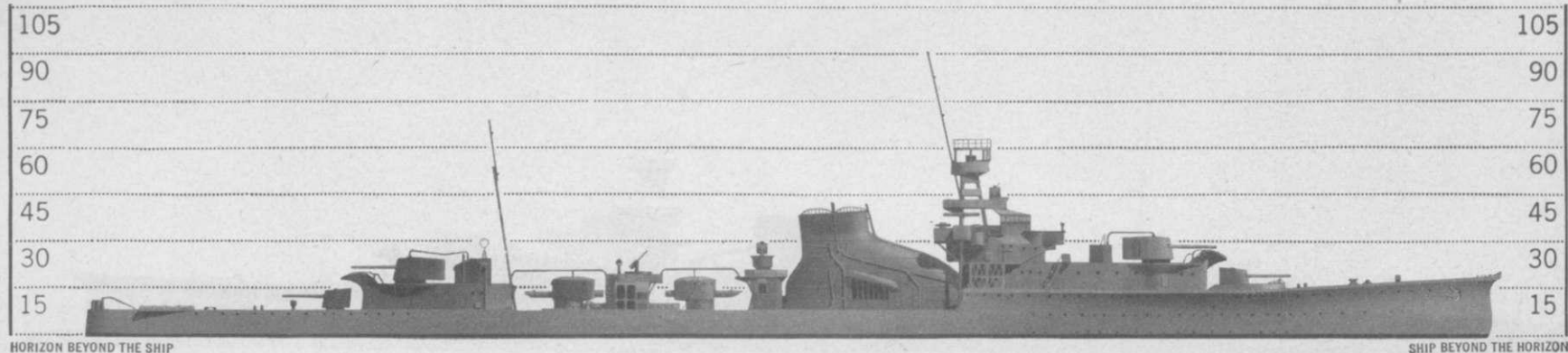


ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

YUBARI—CL 14 

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943

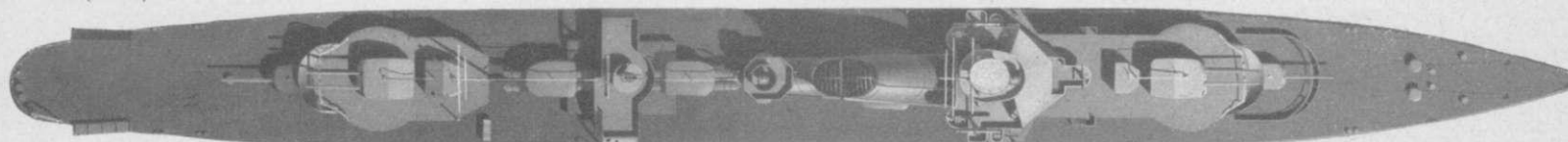
HEIGHT OF OBSERVER



HORIZON BEYOND THE SHIP

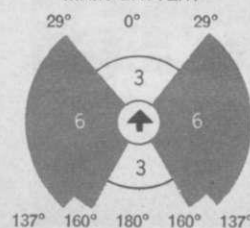
SHIP BEYOND THE HORIZON

LENGTH—463' OA—459' WL
BEAM— 39'6"
DRAFT— 11'8" (MEAN)



DISPLACEMENT—2,890 TONS (STANDARD)—3,100 TONS (NORMAL)

DENSITY OF FIRE
MAIN BATTERY



ARMAMENT

6—5.5" (50)
1—3" (40)
4—21" TORPEDO TUBES

MAX. ELEV.

45°
85°
50 MINES

MAX. RANGE (HORIZONTAL)

20,000 YARDS
9,000 YARDS

MAX. RANGE (VERTICAL)

20,000 FEET

PROPULSION

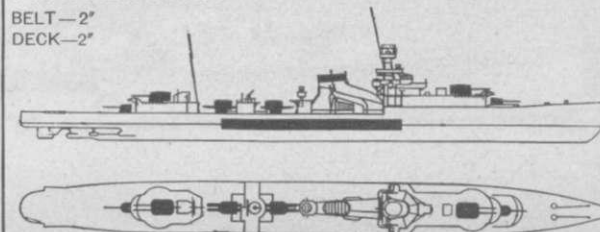
MACHINERY— GEARED TURBINES
BOILERS— EIGHT KAMPON
FUEL— OIL, 820 TONS

DESIGNED H.P.—57,000 DESIGNED SPEED—33 KNOTS

ENDURANCE— 5,500 MILES @ 10 KNOTS—1,400 MILES @ 33 KNOTS

PROTECTION

BELT—2"
DECK—2"





YUBARI—CL 14

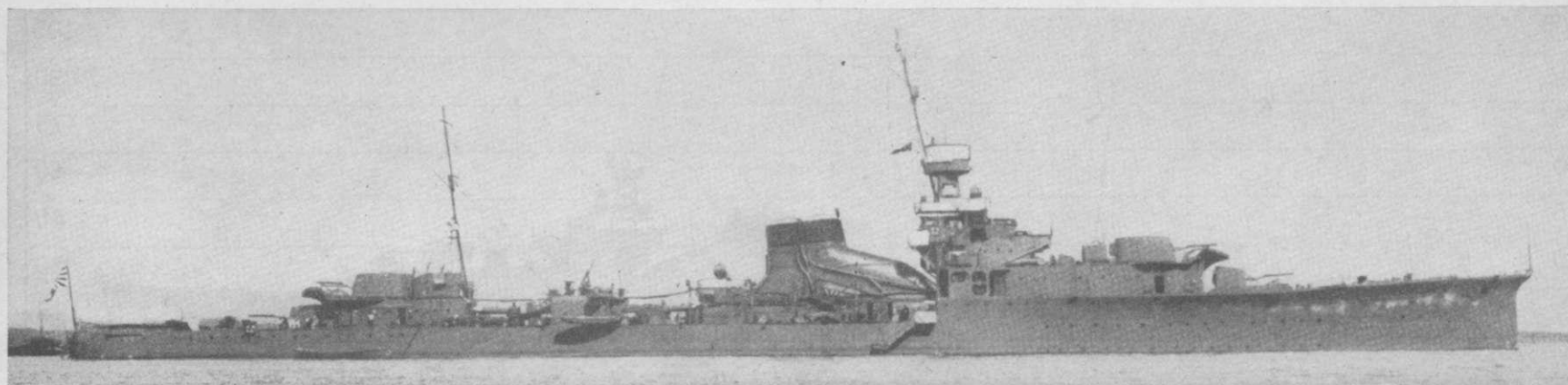
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943

BEGUN
6/5/22

COMPLETED
7/21/23

ONI 41-42

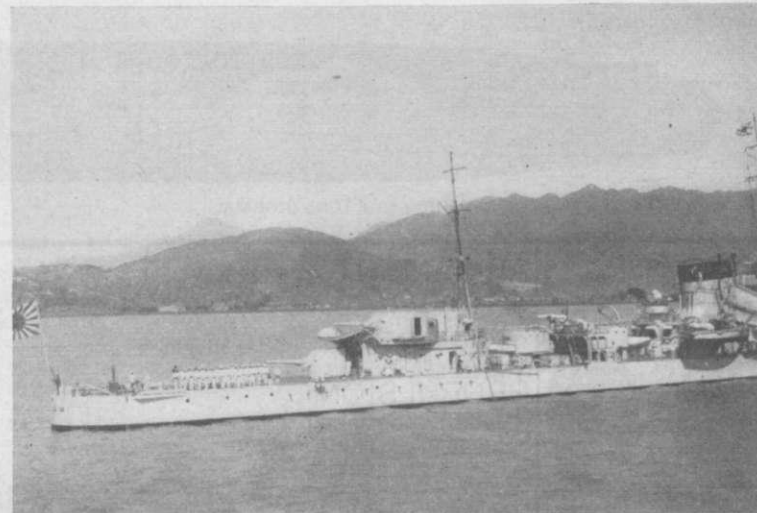
RESTRICTED



↓ 1936

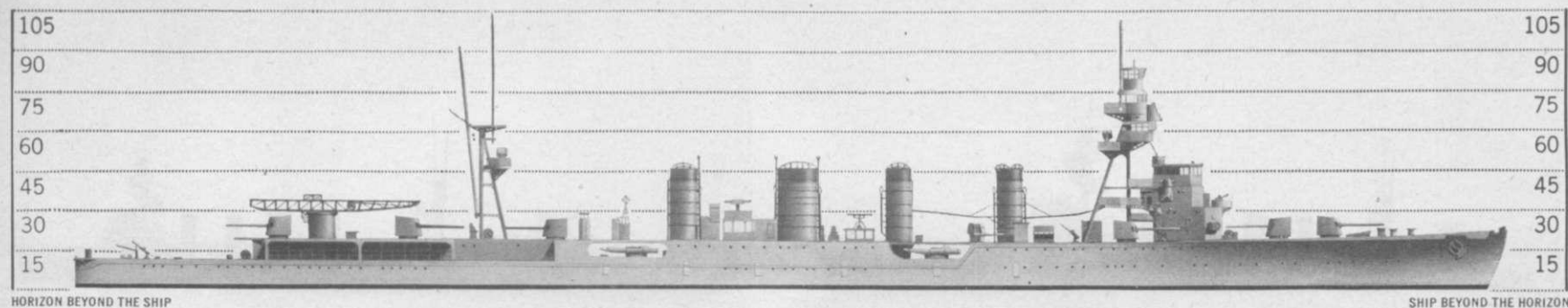
↑ 1937

1939 ↓

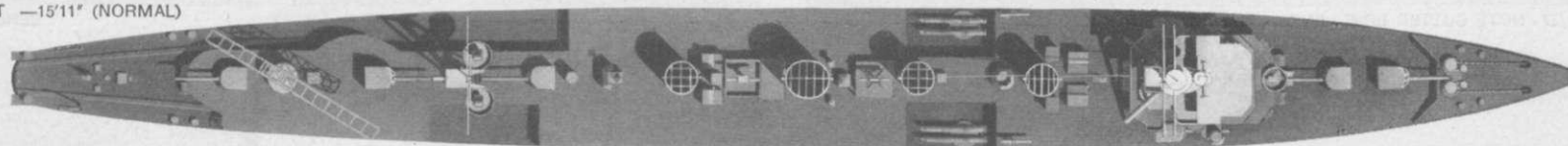


ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57
HEIGHT OF OBSERVER

SENDAI CLASS—CL15-17
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—NOVEMBER, 1942

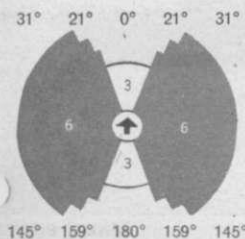


LENGTH—535' OA
BEAM —47'3"
DRAFT —15'11" (NORMAL)



DISPLACEMENT—5,195 TONS (STANDARD)—5,595 TONS (NORMAL)

DENSITY OF FIRE
MAIN BATTERY



ARMAMENT

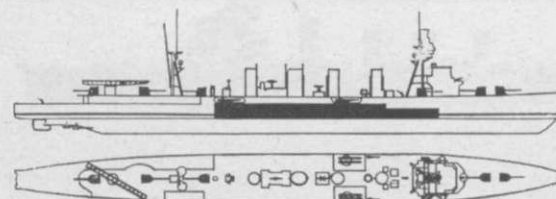
7-5.5 (50)
2-3" (40)
8-21" TORPEDO TUBES, TWIN MOUNTS
80 MINES
1 CATAPULT, 1 SCOUT OBSERVATION

MAX. ELEV. RANGE
25° 19,000 YD.
85° 9,000 YD.

PROPULSION

MACHINERY—4 CURTIS PARSONS
FUEL—OIL 1500 TONS—COAL
DES HP— 90,000
DES SPEED—33 KNOTS

BOILERS—16 KAMPON
ENDURANCE—1300 @ 33 KNOTS
7800 @ 10 KNOTS



PROTECTION

BELTS—2" TURRETS—
CONNING TOWER—2"

BARBETTES—
DECK—

SENDAI CLASS



SENDAI CL 15



JINTSU CL 16 (ZINTU)



NAKA CL 17



SENDAI CLASS—CL15-17

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—NOVEMBER, 1942

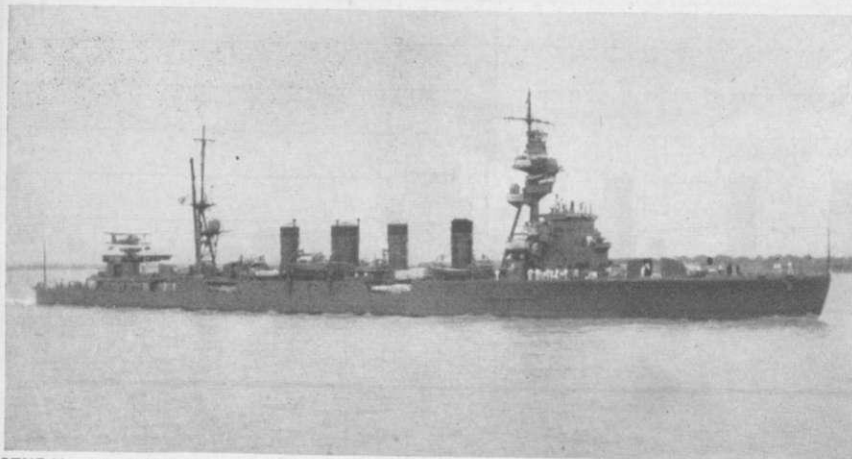
SENDAI—CL15
JINTSU—CL16
NAKA—CL17

BEGUN
2/16/22
8/4/22
6/10/22

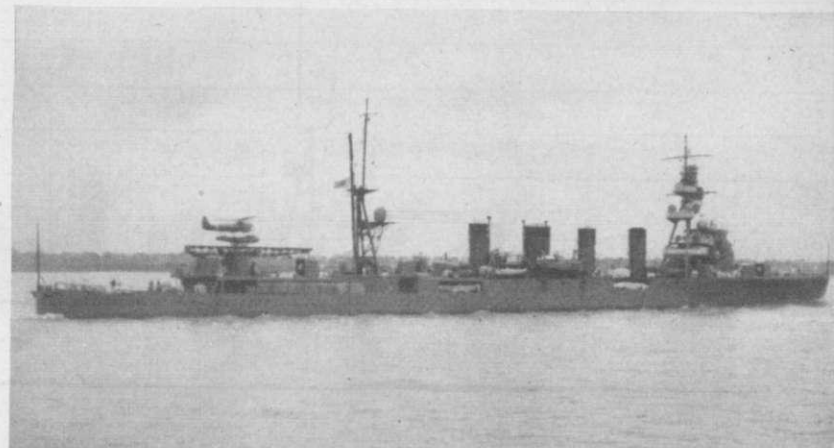
COMPLETED
4/29/24
7/31/25
11/30/25

ONI 41-42

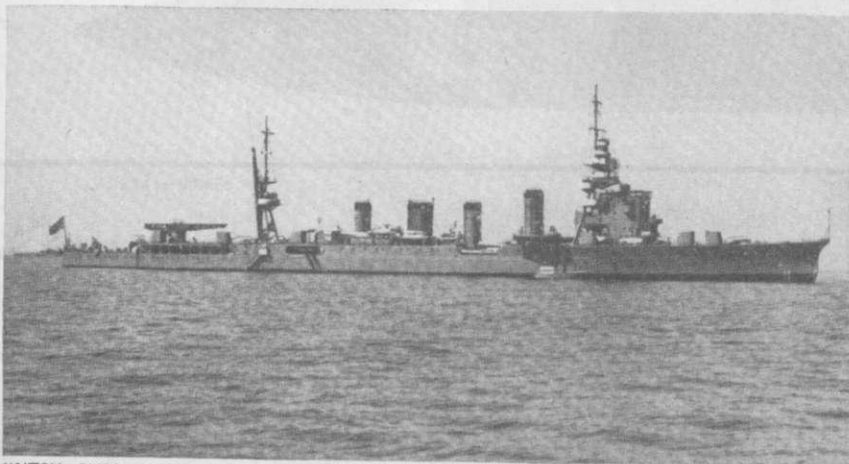
RESTRICTED



SENDAI 8/37 NOTE CUTTER BOW—JINTSU, NAKA HAVE HOOKED BOW



SENDAI 8/37



JINTSU—NAKA HAS MAINMAST TRIPOD REVERSED

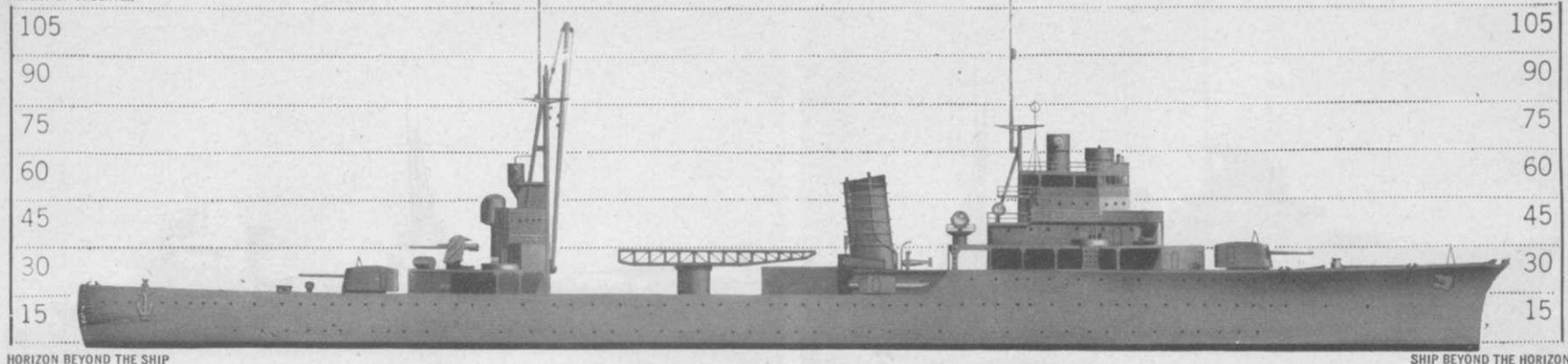


SENDAI 8/16/37

ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30 50, NAVAER 00-80V-57
HEIGHT OF OBSERVER

OFFICIALLY RATED AS TRAINING CRUISERS

KATORI CLASS—CL 18-20
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943



LENGTH—452' OA, 440' WL
BEAM—49'3"
DRAFT—19'8"
(MAXIMUM)

DISPLACEMENT
6,000 TONS (STANDARD)

DENSITY OF FIRE
MAIN BATTERY

49° 42° 0° 42° 49°



135° 180° 135°

ARMAMENT	MAX. ELEV.	MAX. RANGE (HORIZONTAL)	MAX. RANGE (VERTICAL)
4-5.5" (50)	30°	19,000 YARDS	
2-5" (50)	85°	18,000 YARDS	20,000 FEET
4-21" TORPEDO TUBES			
1 CATAPULT—1 SCOUT OBSERVATION			

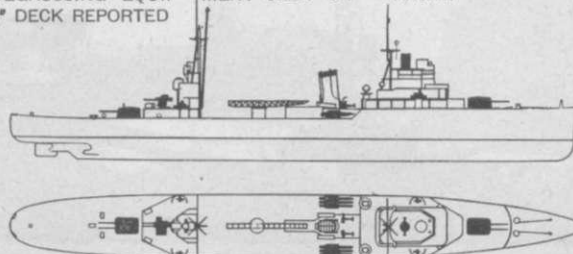
PROPULSION

DESIGNED HP—8,000
DESIGNED SPEED—18 KNOTS (ANNOUNCED)

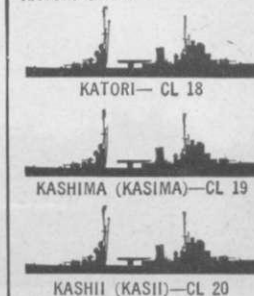
PROTECTION

DEGAUSSING EQUIP
2" DECK REPORTED

MENT SEEN ON KASHII



KATORI CLASS





KATORI CLASS—CL 18-20

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943

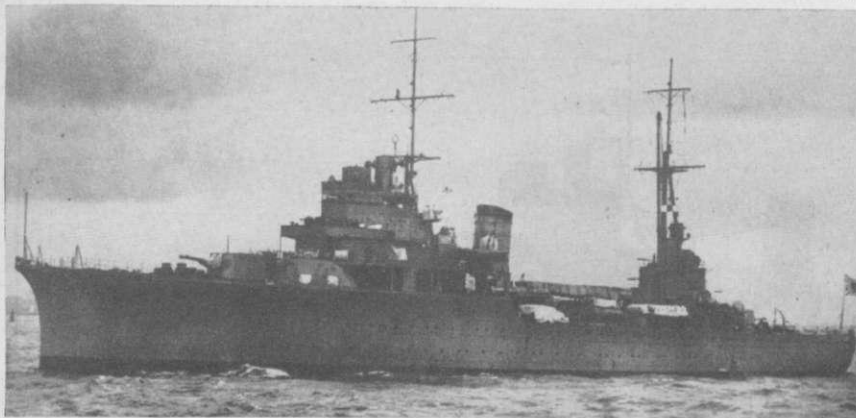
KATORI—CL18
KASHIMA (KASIMA)—CL19
KASHII (KASII)—CL20

BEGUN
1938
1938
1938

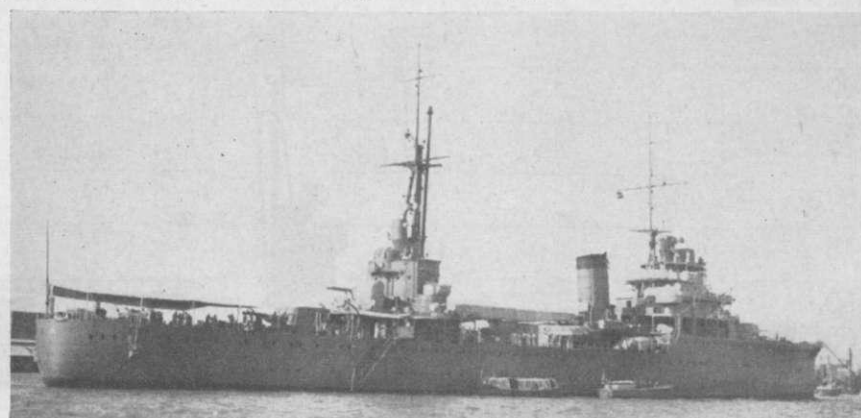
COMPLETED
4/15/40
5/15/40
1941

ONI 41-42

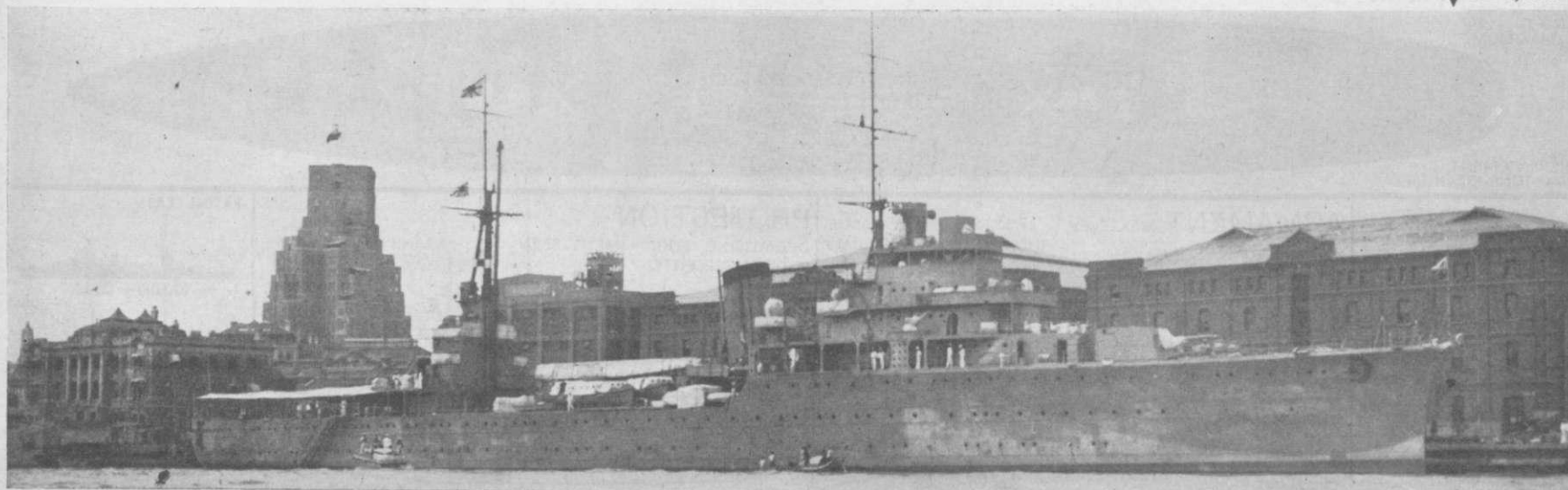
RESTRICTED



↑ JUNE 28, 1940



↓ SEPT., 1940 ↑



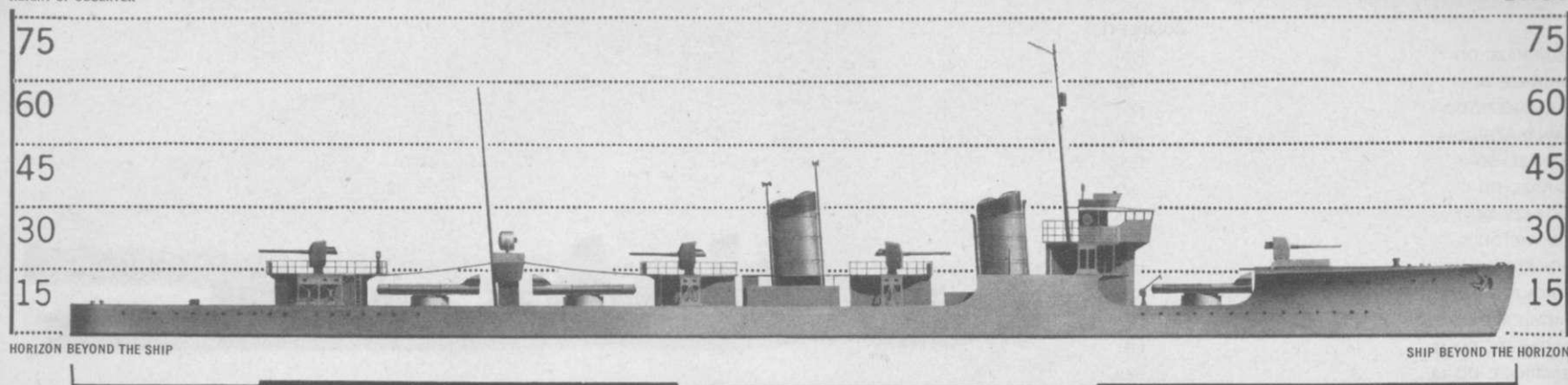
ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

MINEKAZE CLASS—DD 1-15

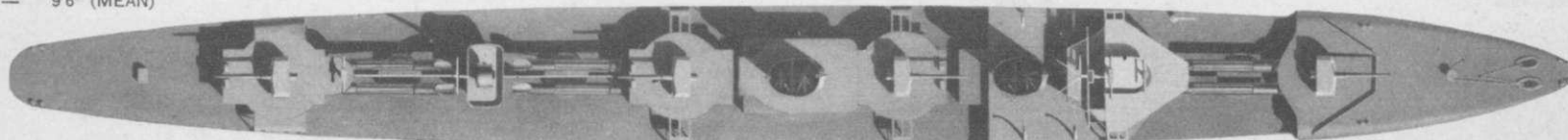
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—JUNE, 1943



HEIGHT OF OBSERVER



LENGTH—336'6" OA
BEAM— 29'3"
DRAFT— 9'6" (MEAN)



DISPLACEMENT—1215 TONS (STANDARD) 1345 (NORMAL)

ARMAMENT

4-4.7" SHIELDS
2-1" AA
6-21" TORPEDO TUBES 10 TORPEDOES CARRIED
50-MINES; 142-DEPTH CHARGES
2 2-30" SEARCHLIGHTS
FITTED FOR MINESWEEPING

MAX. ELEV. 45°
RANGE (HORIZONTAL) 19,000 YDS.

PROPULSION

MACHINERY— 4 PARSONS
BOILERS— 4 KAMPON
DESIGNED HP—38,500
ENDURANCE— 4,100 @ 15 KNOTS

FUEL— OIL 315 TONS
DESIGNED SPEED—34 KNOTS
—900 @ 34 KNOTS

PROTECTION—SPLINTER PROTECTION FOR BRIDGE AND GUNS



15 MINEKAZE CLASS



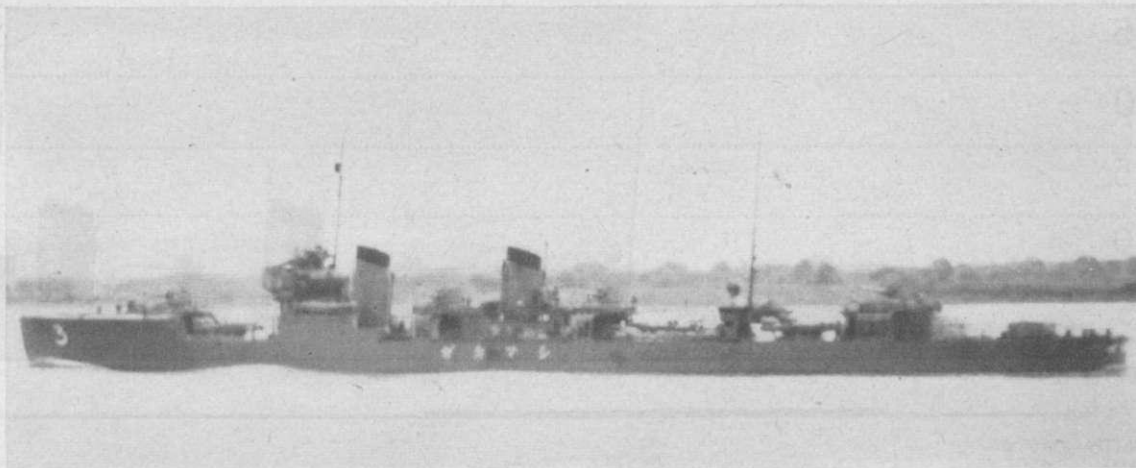
MINEKAZE CLASS—DD 1-15

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—JUNE, 1943

ONI 41-42

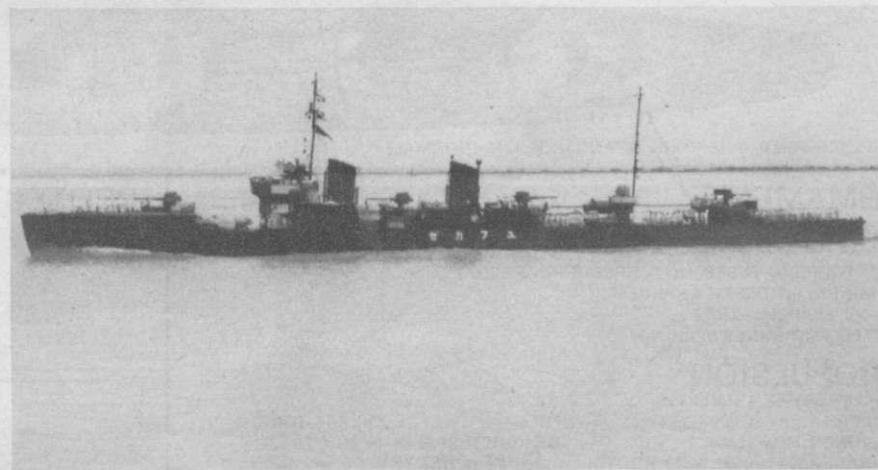
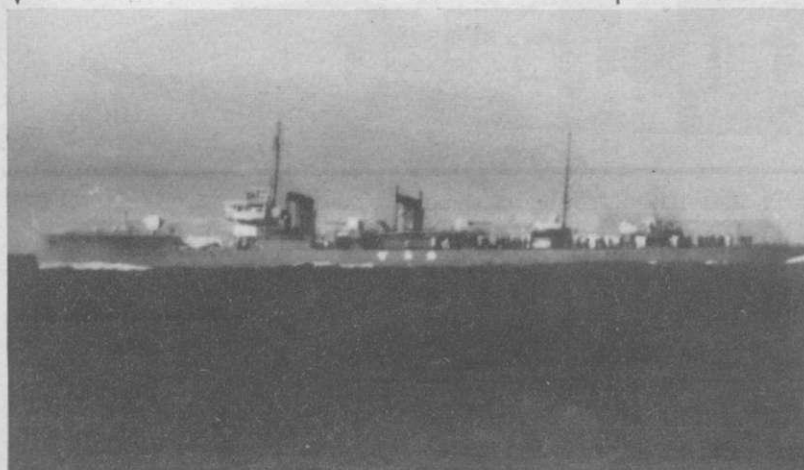
RESTRICTED

	COMPLETED
MINEKAZE DD-1	1920
OKIKAZE DD-2	1920
SHIMAKAZE DD-3	1920
SAWAKAZE DD-4	1920
HAKAZE DD-5	1920
YAKAZE DD-6	1920
AKIKAZE DD-7	1921
YUKAZE DD-8	1921
HOKAZE DD-9	1921
SHIOKAZE DD-10	1921
TACHIKAZE DD-11	1921
NADAKAZE DD-12	1921
NAMIKAZE DD-13	1922
NUMAKAZE DD-14	1922
NOKAZE DD-15	1922
↓ HOKAZE—1939	



↑ 1938

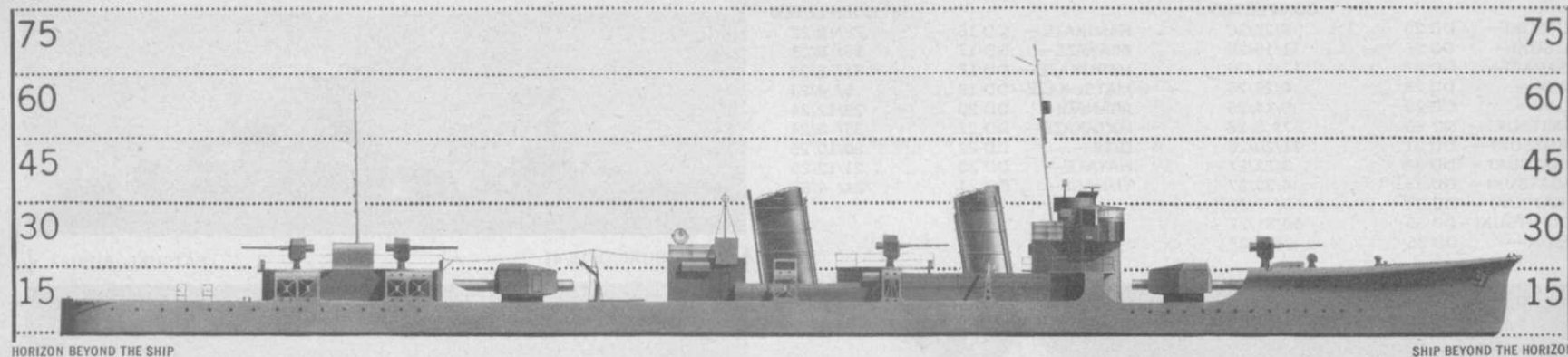
YUKAZE 8/26/37 ↓



ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57
HEIGHT OF OBSERVER

**KAMIKAZE CLASS-DD 16-24 SIMILAR WITH
TORPEDO ARMAMENT VARIATION.**

MUTSUKI CLASS—DD 25-36
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—JUNE, 1943



LENGTH—336'6" OA—331' WL
BEAM— 30'
DRAFT— 9'10" (MEAN)



DISPLACEMENT—1,315 TONS (STANDARD)—1,445 TONS (NORMAL)

ARMAMENT

	MAX. ELEV.	RANGE (HORIZONTAL)
4-4.7 (45) AA	45°	19,000 YDS.
2-1.4 AA		
6-21" TORPEDO TUBES (TRIPLE MOUNTS) (DD 16-24—TWIN MOUNTS)		
FITTED FOR MINESWEEPING		
50(?)—MINES, 14 DEPTH CHARGES		

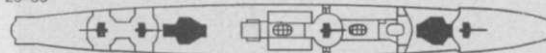
PROPULSION

MACHINERY—	FOUR PARSONS DOUBLE SHAFT GEARED TURBINES.
BOILERS—	FOUR KAMPON FUEL— OIL, 350 TONS
DESIGNED HP—	38,500
DESIGNED SPEED—	34 KNOTS
PROPELLERS—	2

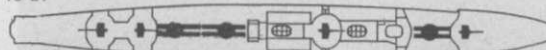
PROTECTION

SPLINTER PROTECTION ON BRIDGES, MAIN BATTERY AND TORPEDO TUBES. WELL COMPARTMENTED. CAN REMAIN AFLOAT AND ON EVEN KEEL WITH THREE OF LARGEST COMPARTMENTS FLOODED.

DD 25-36



DD 16-24



12 MUTSUKI CLASS DD 25-36



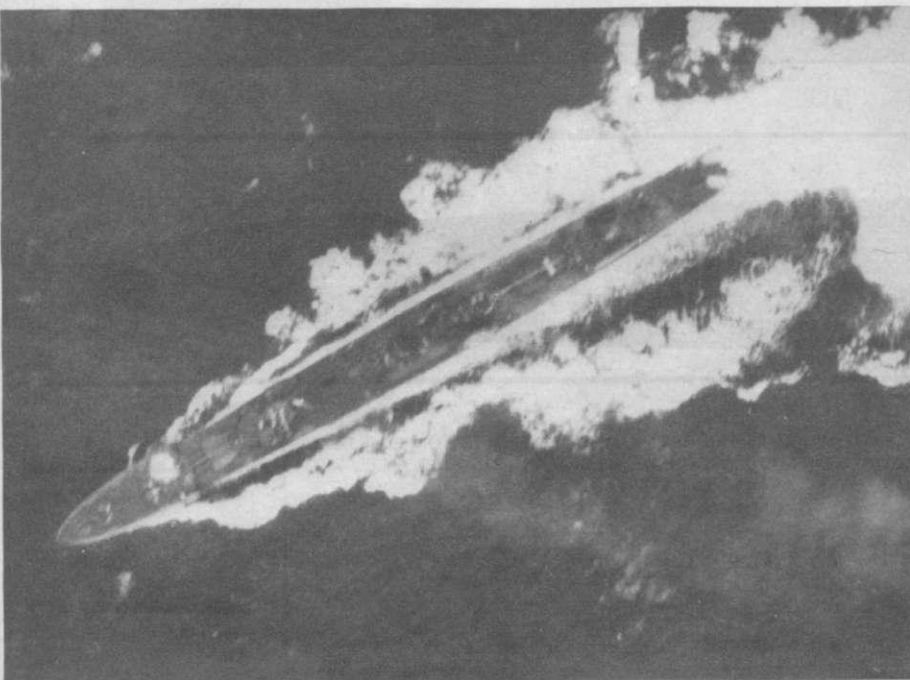
9 KAMIKAZE CLASS DD 16-24



MUTSUKI CLASS—DD 25-36

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION —JUNE, 1943

COMPLETED			COMPLETED		
MUTSUKI—	DD 25	3/25/26	KAMIKAZE—	DD 16	28/12/22
SATSUKI—	DD 26	11/15/25	ASAKAZE—	DD 17	16/ 6/23
KISARAGI—	DD 27	12/21/25	HARUKAZE—	DD 18	31/ 5/23
YAYOI—	DD 28	8/28/26	MATSUKAZE—	DD 19	5/ 4/24
UZUKI—	DD 29	9/14/26	ASANAGI—	DD 20	29/12/24
FUMITSUKI—	DD 30	7/ 3/26	HATAKAZE—	DD 21	30/ 8/24
KIKUTSUKI—	DD 31	11/20/26	OITE—	DD 22	30/10/25
MINATSUKI—	DD 32	3/22/27	HAYATE—	DD 23	21/12/25
NAGATSUKI—	DD 33	4/30/27	YUNAGI—	DD 24	24/ 4/25
MIKATSUKI—	DD 34	5/ 7/27			
MOCHITSUKI—	DD 35	10/31/27			
YUZUKI—	DD 36	7/25/27			



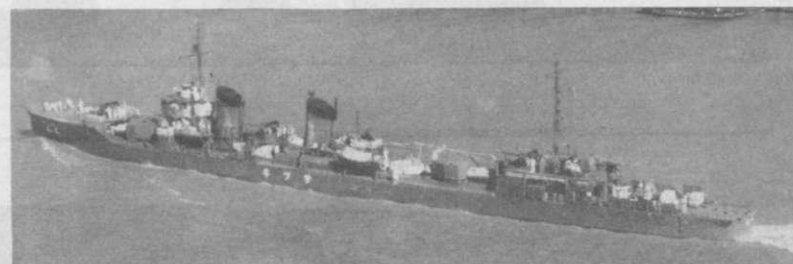
ONI 41-42

RESTRICTED



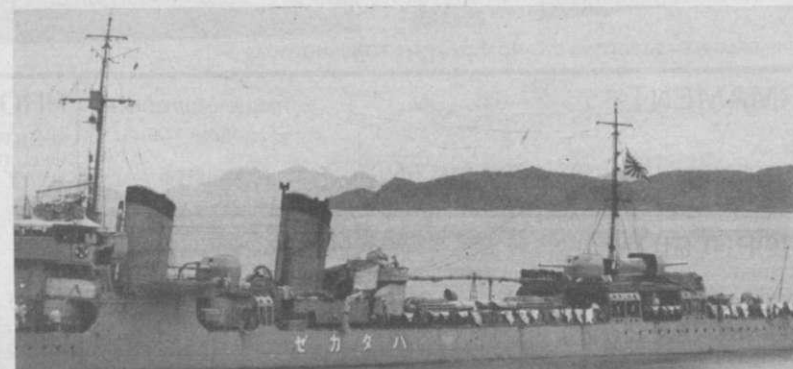
↑ NAGATSUKI 1/15/41

SATSUKI 8/18/37 ↓



← 9/11/42

HATAKAZE (KAMIKAZE CLASS) 5/40 ↓

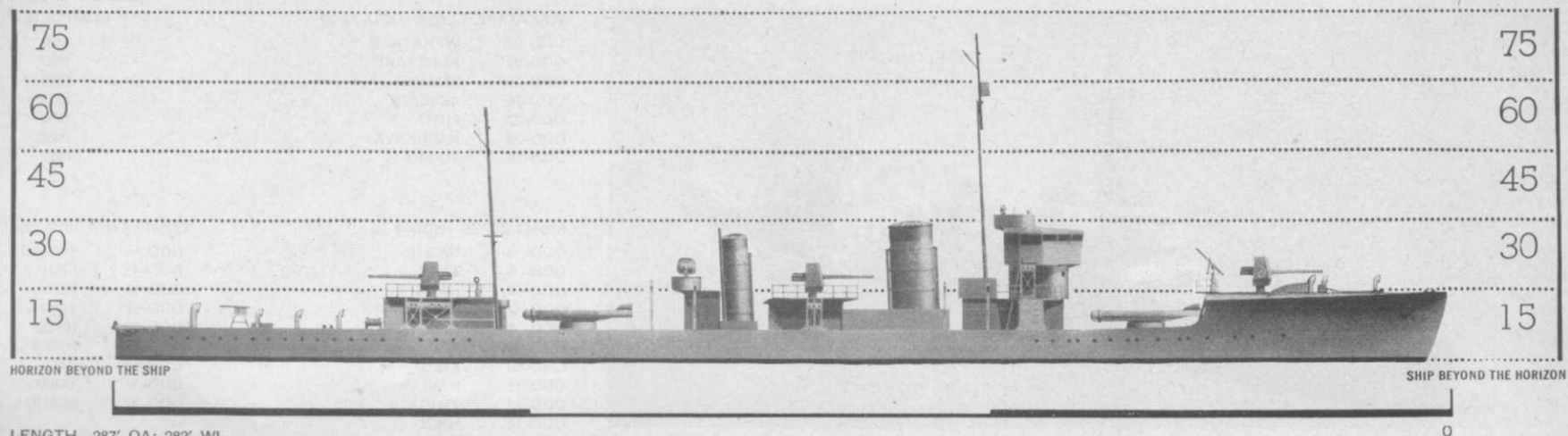


ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57
HEIGHT OF OBSERVER

MOMI CLASS—ODD-4-22
IDENTICAL IN APPEARANCE

WAKATAKE CLASS—ODD-23-29

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—JUNE, 1943



LENGTH—287' OA; 282' WL
BEAM— 26'6"
DRAFT— 8'3"



DISPLACEMENT—770 (M)—820 (W) TONS STANDARD

ARMAMENT

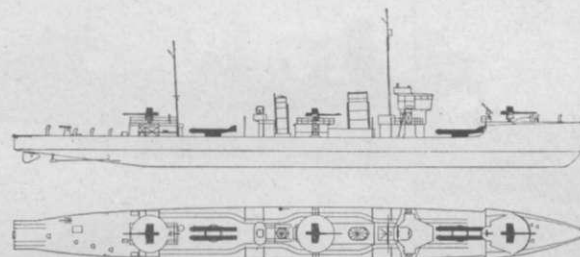
3-4.7" (45)
2-AAMG
4-21" TORPEDO TUBES
10 DEPTH CHARGES
SOME HAVE BEEN CONVERTED FOR MINELAYING

MAX. ELEV.
40°

MAX. RANGE (HORIZONTAL)
19,000 YARDS

PROPULSION

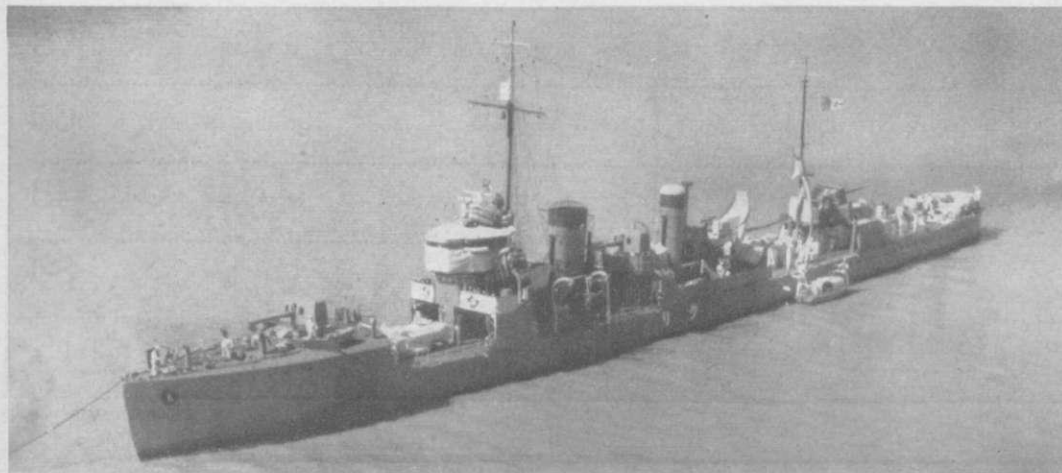
MACHINERY— PARSONS GEARED TURBINE
BOILERS— 3 KAMPON
FUEL— OIL —275 TONS
DESIGNED HP—21,500
MAX. SPEED— 31.5





WAKATAKE CLASS—ODD-23-29

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—JUNE, 1943



↑ KURI—8/18/37

HASU—8/18/37 ↓



ONI 41-42

RESTRICTED

WAKATAKE CLASS—ODD-23-29

ODD-23	WAKATAKE
ODD-24	KURETAKE
ODD-25	SANAYE
ODD-26	ASAGAO
ODD-27	FUYO
ODD-28	KARUKAYA
ODD-29	YUGAO

COMPLETED

1922
1922
1923
1923
1923
1923
1923
1923

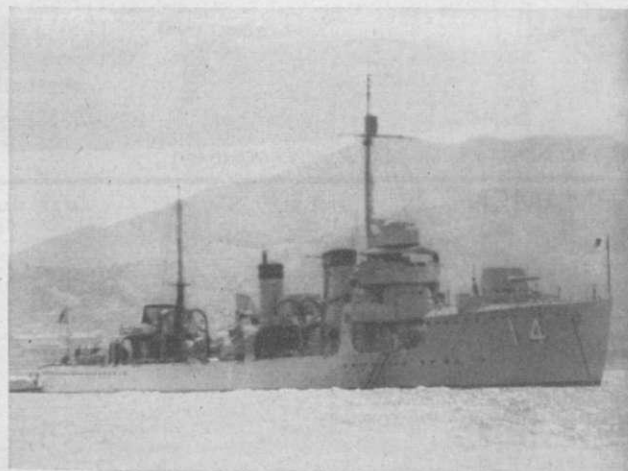
MOMI CLASS—ODD-4-22

ODD-4	NASHI
ODD-5	TAKE
ODD-6	KAKA
ODD-7	KURI
ODD-8	NIRE
ODD-9	AOI
ODD-10	KIKU
ODD-11	KAKI
ODD-12	TSUGA
ODD-13	HAGI

COMPLETED 1919-1923

ODD-14	SUSUKI
ODD-15	FUJI
ODD-16	ASHA
ODD-17	TSUTA
ODD-18	HASU
ODD-19	HISHI
ODD-20	TADE
ODD-21	YOMOGI
ODD-22	SUMIRA

HAGI—10/36 ↓



ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

FUBUKI CLASS—SHINONOME GROUP—DD 37-44

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—NOVEMBER, 1942



ARMAMENT

6-5" (50) TWIN TURRETS
2-AAMG
9-21" TORPEDO TUBES, TRIPLE MOUNTS
14 DEPTH CHARGES
SOME FITTED FOR MINELAYING

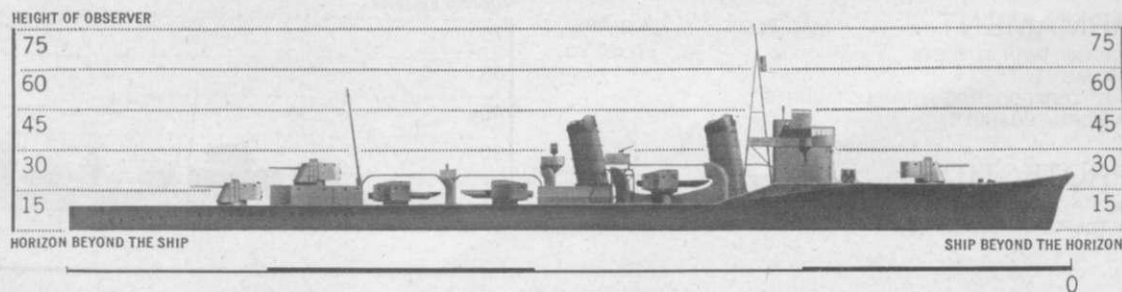
MAX. ELEV.
85°

RANGE
18,000 YD.

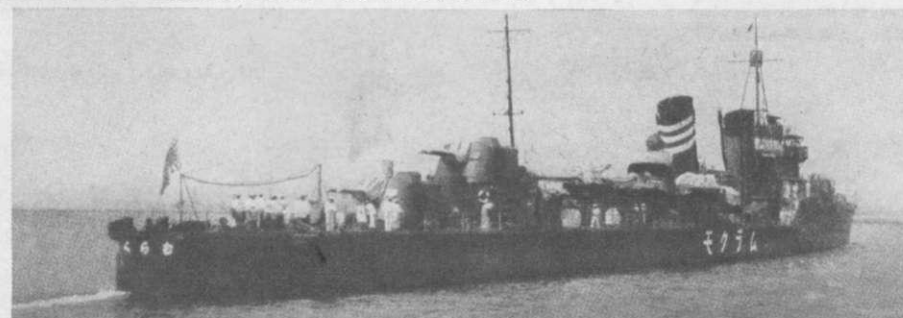
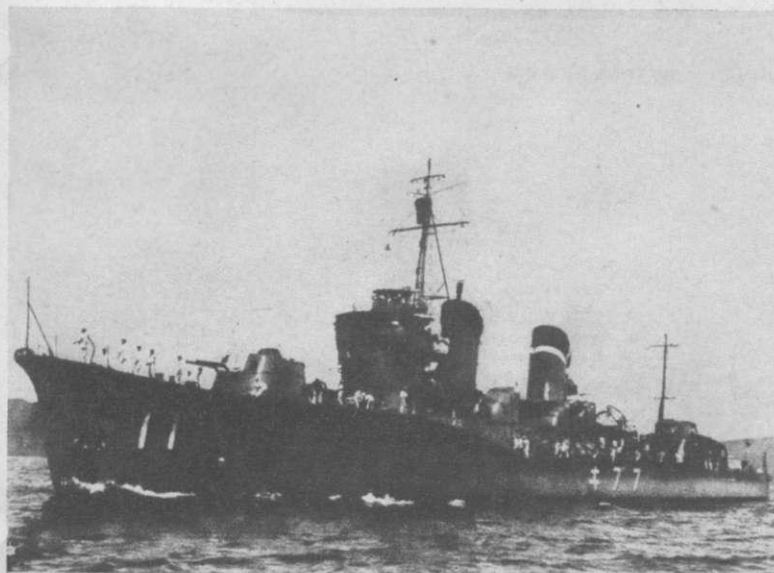
PROPULSION

MACHINERY— 2 PARSONS
BOILERS— 4 KAMPON
FUEL— OIL, 500 TONS
DESIGNED HP— 40,000
DESIGNED SPEED— 34 KNOTS
ENDURANCE— 1100 @ 34 KNOTS
4700 @ 15 KNOTS

LENGTH—379'6" OA
BEAM —33'9"
DRAFT —9'9" (NORMAL)



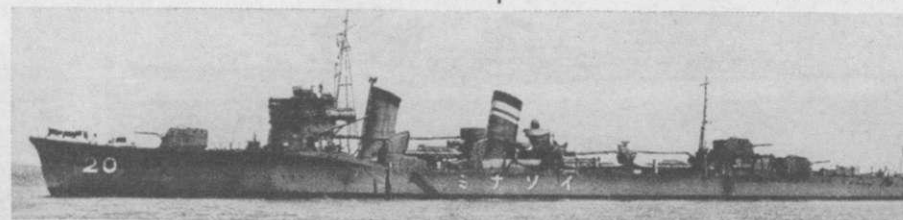
DISPLACEMENT—1,700 TONS (STANDARD)—1,850 TONS (NORMAL)



← FUBUKI

MURAKUMO ↑

ISONAMI 1934 ↓



ONI 41-42 RESTRICTED

FUBUKI CLASS—HIBIKI GROUP—DD 56-59



DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—DECEMBER, 1942

ARMAMENT

6-5" (50) TWIN TURRETS

2-AAMG

9-21" TORPEDO TUBES, TRIPLE MOUNTS

14 DEPTH CHARGES

MAX. ELEV.

85°

RANGE

18,000 YD.

PROTECTION

GUN HOUSES, SPLINTER SHIELDS,
& TORPEDO-CREW SHIELDS

HEIGHT OF OBSERVER

75

60

45

30

15

HORIZON BEYOND THE SHIP

75

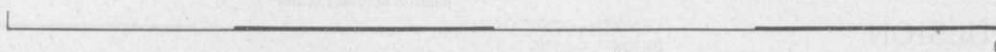
60

45

30

15

SHIP BEYOND THE HORIZON



PROPULSION

MACHINERY—

2 PARSONS

BOILERS—

4 KAMRON

FUEL—

OIL, 500 TONS

DESIGNED HP—

40,000

DESIGNED SPEED—34 KNOTS

ENDURANCE—

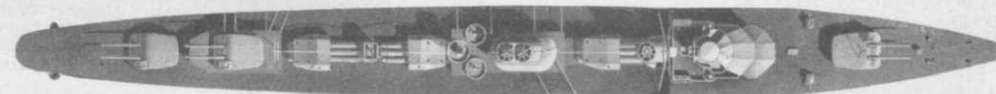
1100 @ 34 KNOTS

4700 @ 15 KNOTS

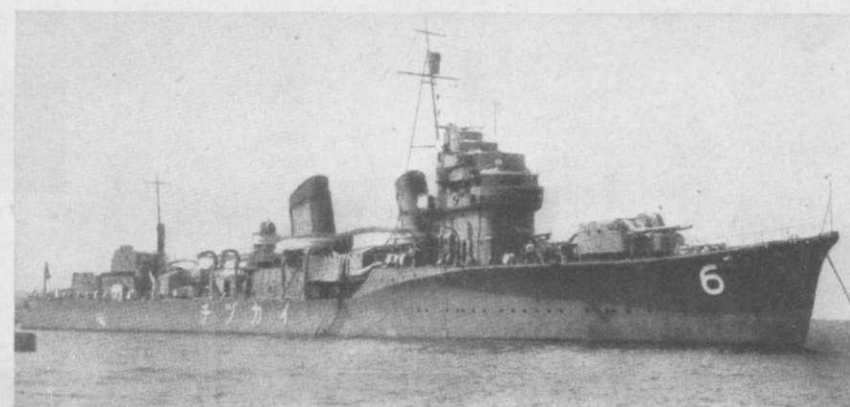
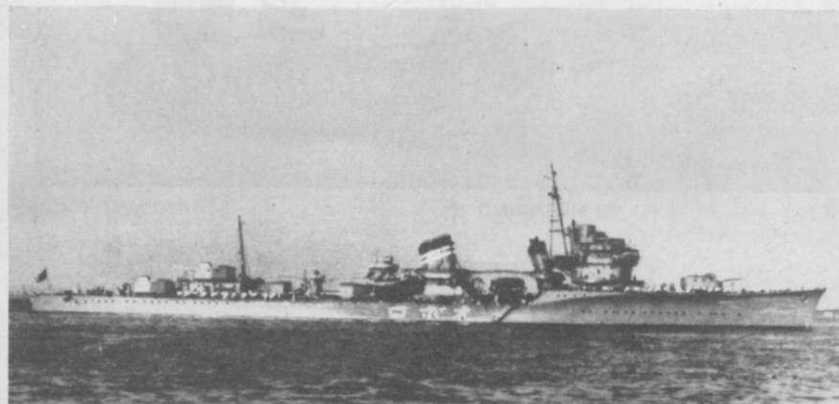
LENGTH—379'6" OA

BEAM —33'9"

DRAFT —9'9" (NORMAL)



DISPLACEMENT—1,700 TONS (STANDARD)—1,850 TONS (NORMAL)



↑ IKAZUCHI

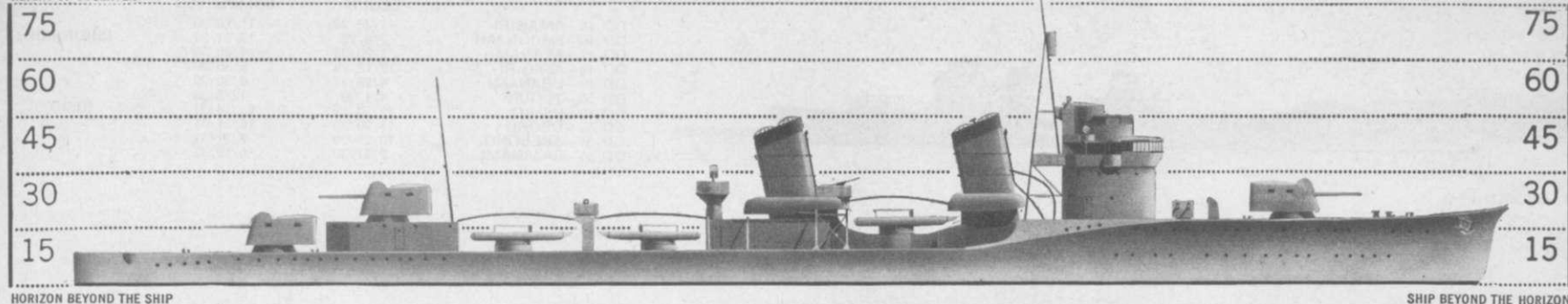
ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

FUBUKI CLASS—AMAGIRI GROUP—DD 45-55

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—DECEMBER, 1942



HEIGHT OF OBSERVER



HORIZON BEYOND THE SHIP

SHIP BEYOND THE HORIZON

LENGTH—379'6" OA
BEAM— 33'9"
DRAFT— 9'9" (NORMAL)



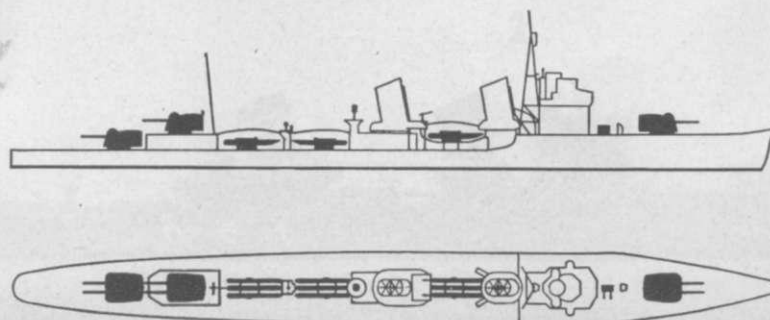
DISPLACEMENT—1,700 TONS (STANDARD)—1,850 TONS (NORMAL)

ARMAMENT

	MAX. ELEV.	RANGE
6-5" (50)	85°	18,000 YD.
2--AAMG		
9-21" TORPEDO TUBES, TRIPLE MOUNTS		
14 DEPTH CHARGES		

PROPULSION

MACHINERY—	2 PARSONS
BOILERS—	4 KAMPON
FUEL—	OIL, 500 TONS
DESIGNED HP—	40,000
DESIGNED SPEED—	34 KNOTS
ENDURANCE—	1,100 @ 34 KNOTS
	4,700 @ 15 KNOTS



FUBUKI CLASS

SHINONOME GROUP—DD 37-44

AMAGIRI GROUP—DD 45-55

HIBIKI GROUP—DD 56-59



FUBUKI CLASS—AMAGIRI GROUP—DD 45-55

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—DECEMBER, 1942

ONI 41-42

RESTRICTED



BEGUN COMPLETED

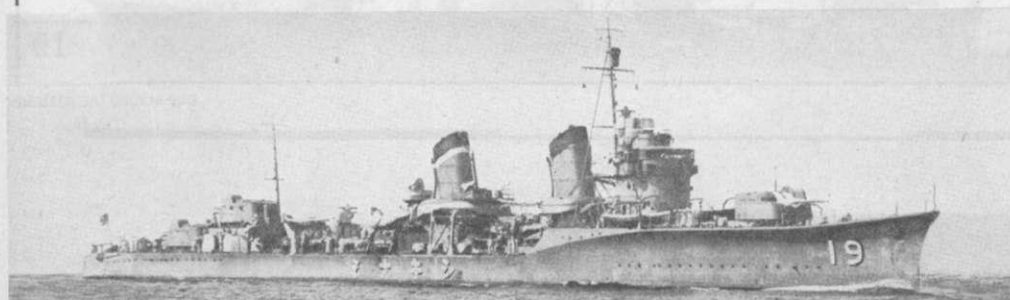
DD 45—AMAGIRI
DD 46—SHIKINAMI
DD 47—AYANAMI
DD 48—ASAGIRI
DD 49—URANAMI
DD 50—YUGURI
DD 52—USHIO
DD 53—OBORO
DD 54—AKEBONO
DD 55—SAZANAMI

11/28/28 11/10/30
7/6/28 12/24/29
1/20/28 4/30/30
12/12/28 6/30/30
4/28/27 6/30/29
4/1/29 12/3/30
12/24/29 11/14/31
11/29/29 10/31/31
10/25/29 7/31/31
2/21/30 5/19/32

(SHIKINAMI)

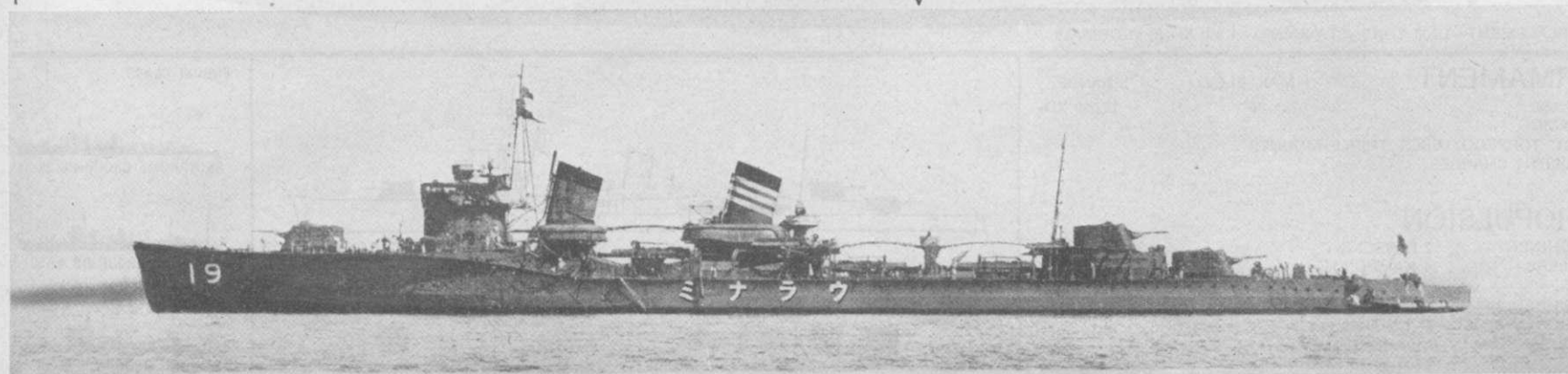
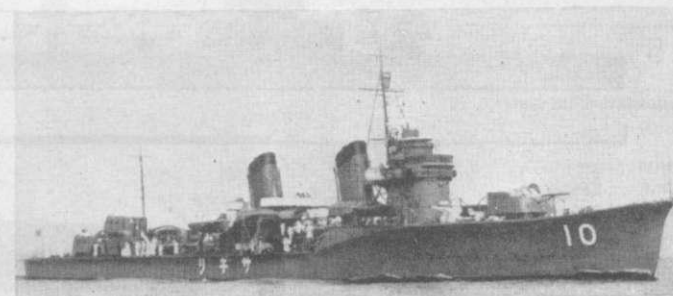
(USHIO)

↑ OBORO



↑ SHIKINAMI

URANAMI ↓



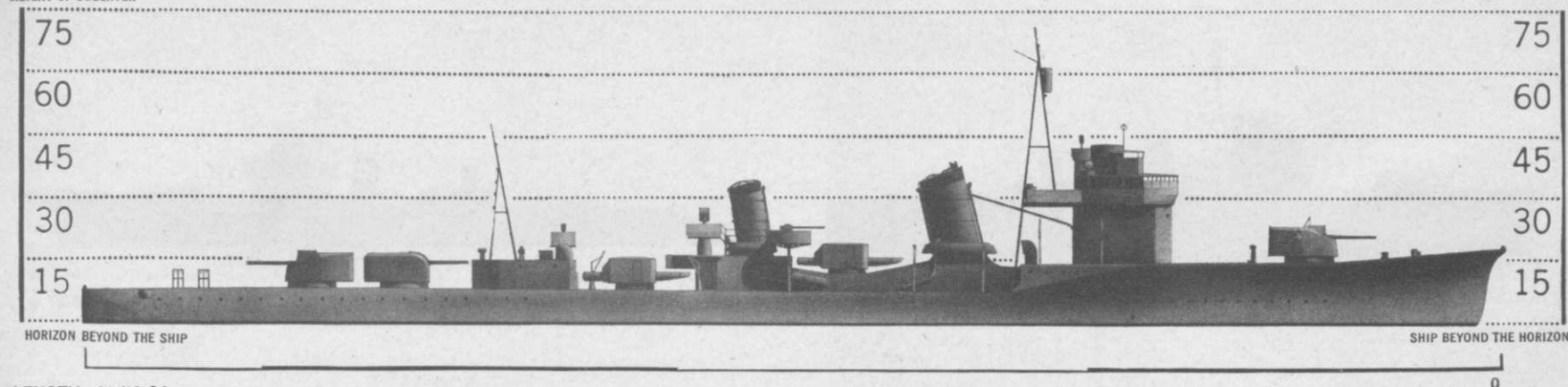
ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

HATSUHARU CLASS—DD 60-65

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943



HEIGHT OF OBSERVER



LENGTH—344'0" OA
BEAM— 32'6"
DRAFT— 8'9" (MEAN)

DISPLACEMENT
1368 (STANDARD)

ARMAMENT

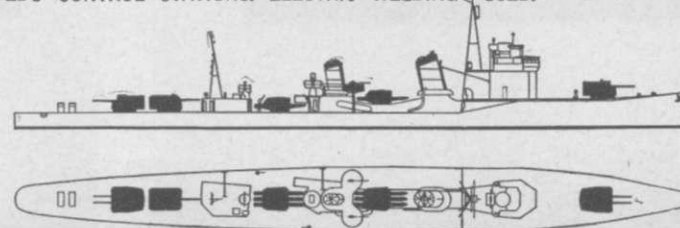
5-5" (50) MAX. ELEV. 45° RANGE 19,000 YDS.
2 AAMG
6-21" TORPEDO TUBES, TRIPLE MOUNTS. —14 DEPTH CHARGES
ORIGINALLY FITTED WITH SUPERFIRING GUNHOUSES FORWARD AND ONE AFT. TO IMPROVE STABILITY THE HIGH SINGLE MOUNT FORWARD WAS MOVED AFT, THE BRIDGE CUT DOWN, AND TORPEDO BATTERY REDUCED.

PROPULSION

MACHINERY—GEARED TURBINES
BOILERS— 3 KAMPON
FUEL— OIL, 500 TONS
DES HP— 37,000
ENDURANCE—1020 @ 34 KNOTS—6000 @ 15 KNOTS
PROPELLERS—2

PROTECTION

LIGHT SPLINTER PROTECTION (1/8") FOR GUN HOUSES AND TORPEDO CONTROL STATIONS. ELECTRIC WELDING USED.



6 HATSUHARU CLASS



HATSUHARU— DD 60
HATSUSHIMO—DD 61
NENOHI— DD 62
WAKABA— DD 63
ARIAKE— DD 64
YUGURE— DD 65



HATSUHARU CLASS—DD 60-65

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943

HATSUHARU —DD60
HATSUSHIMO—DD61
NENOHI —DD62

BEGUN	COMPLETED
5/14/31	9/30/33
1/31/33	9/27/34
12/15/31	9/30/33

	BEGUN	COMPLETED
WAKABA—DD63	12/12/31	10/31/34
ARIAKE —DD64	1/14/33	3/25/35
YUGURE—DD65	4/ 9/33	3/30/35

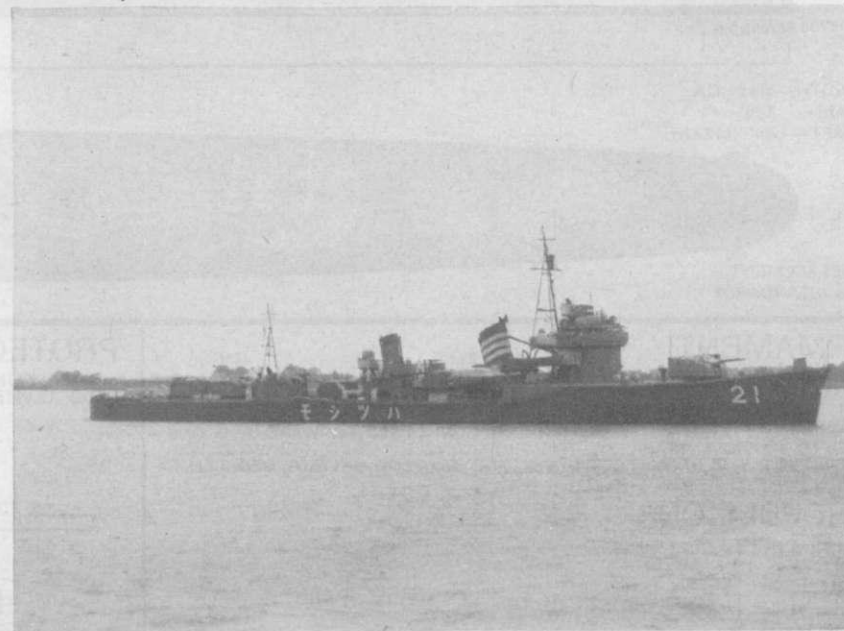
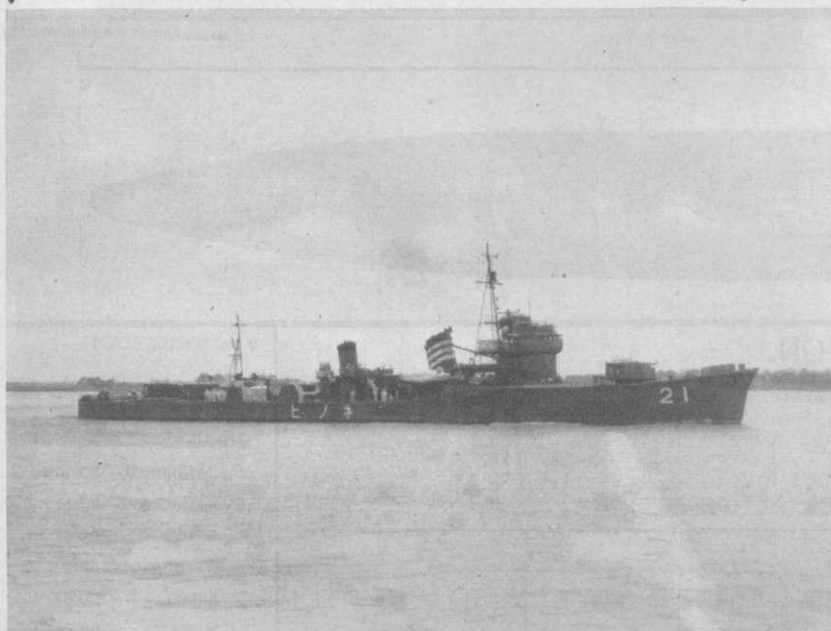


↓ NENOHI—8/18/37



↑ 1941—YUGURE—8/16/37 ↑

HATSUSHIMO—8/18/37 ↓



ONI 41-42 RESTRICTED

CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

SHIGURE CLASS—DD 66-75

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943



ARMAMENT

5— 5" (50) AA (2 TWINS AND 1 SINGLE)
2 AAMG
8—21" TORPEDO TUBES (QUADS)
? MINES 16 DEPTH CHARGES

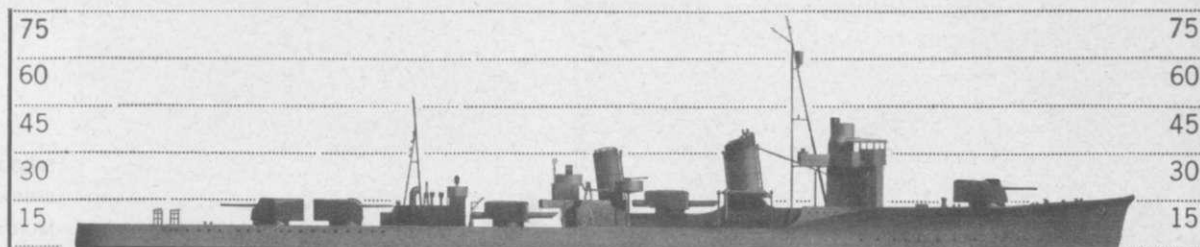
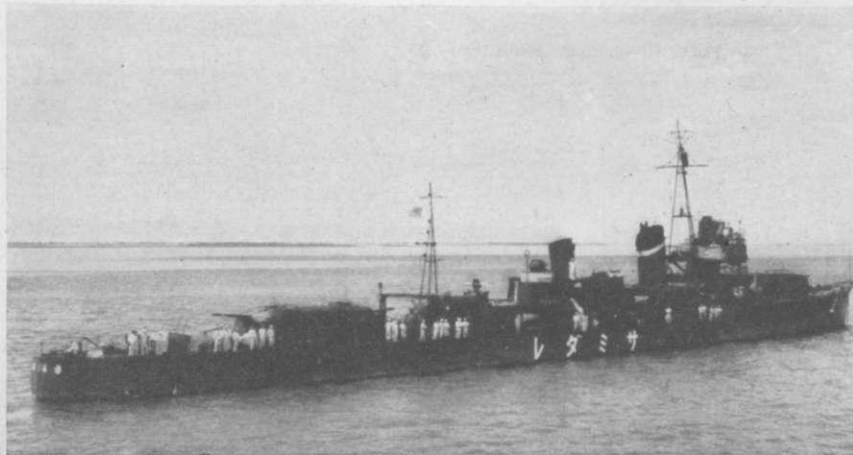
PROPULSION

MACHINERY— GEARED TURBINES
BOILERS— FOUR KAMPON
FUEL— OIL, 500
DESIGNED HP— 37,000
DESIGNED SPEED— 34 KNOTS
ENDURANCE— 6,000 MILES @ 15 KNOTS
1,020 MILES @ 34 KNOTS

10 SHIGURE CLASS—DD 66-75



↓ SAMIDARE—SEPTEMBER 1937

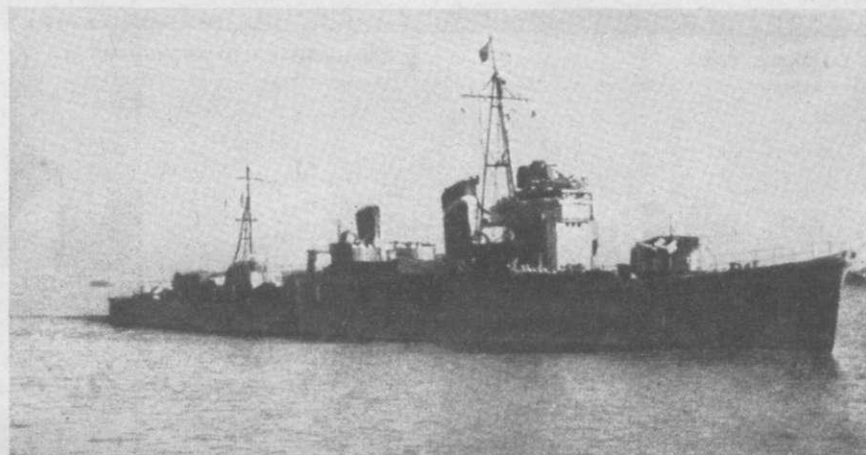


LENGTH—341'3" OA 335'5" WL
BEAM— 31'9"
DRAFT— 9'3" (MEAN)



DISPLACEMENT—1,368 TONS (STANDARD)

↓ KAWAKAZE

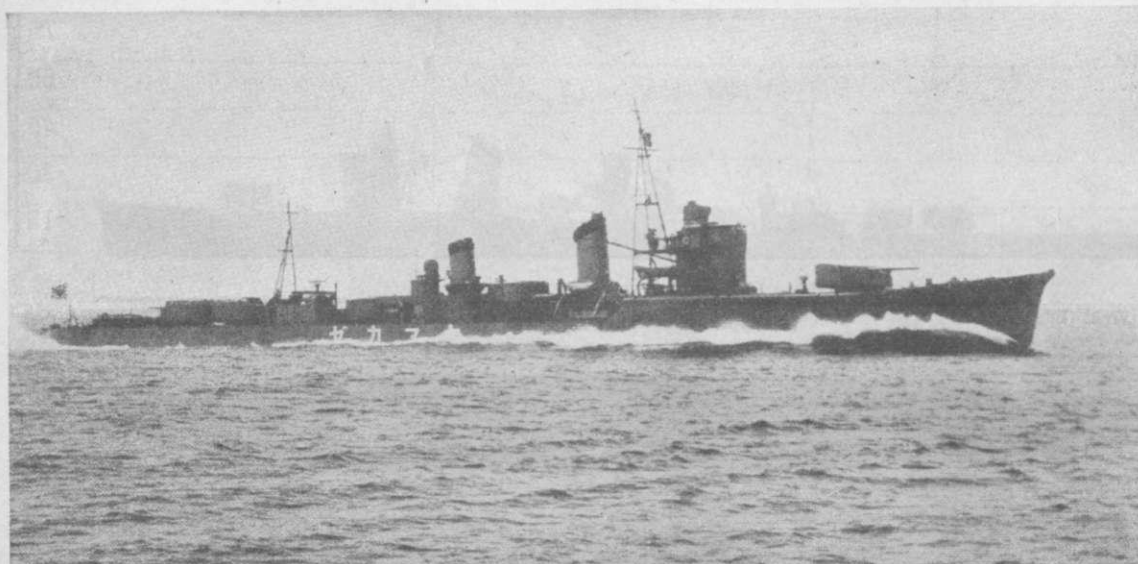




SHIGURE CLASS—DD 66-75

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—JULY, 1943

ONI 41-42

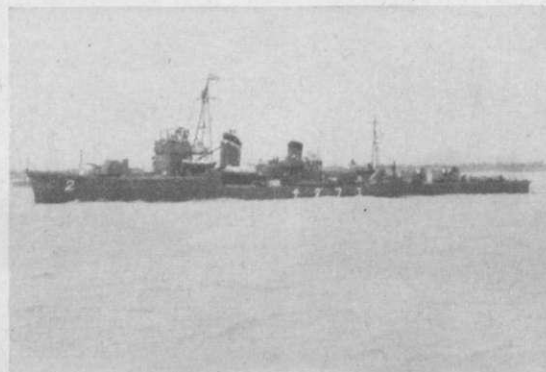


	BEGUN	COMPLETED
SHIGURE— DD 66	12/9/33	9/7/36
SHIRATSUYU—DD 67	11/14/33	8/20/36
MURASAME— DD 68	2/1/34	1/7/37
YUDACHI— DD 69	10/16/34	11/1/36
HARUSAME— DD 70	2/3/35	9/7/37
SAMIDARE— DD 71	12/19/34	2/3/37
YAMAKAZE— DD 72	5/25/35	5/7/37
SUZUKAZE— DD 73	7/7/35	5/7/37
KAWAKAZE— DD 74	4/25/35	5/7/37
UMIKAZE— DD 75	4/5/35	5/31/37

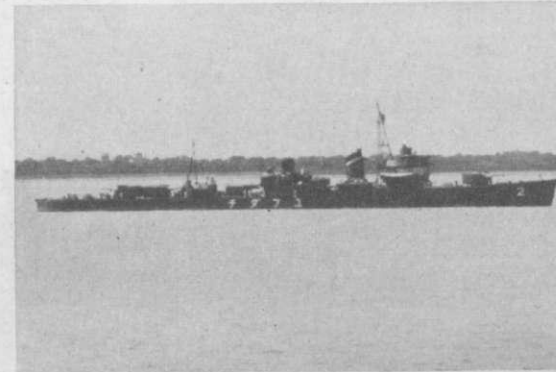
↑ YAMAKAZE—9/38



↓ SAMIDARE—8/16/37—SHANGHAI



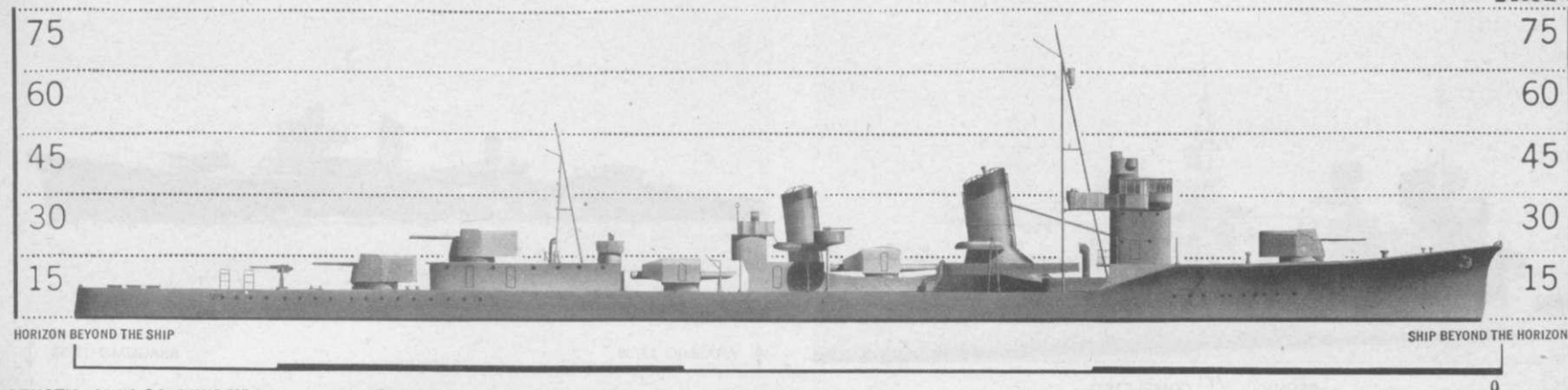
↓ YUDACHI—8/16/37—SHANGHAI ↓



ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

ASASHIO CLASS—DD 76-85

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943



LENGTH—361'6" OA, 356'2" WL
BEAM—33'4"
DRAFT—9'0" (MEAN)

DISPLACEMENT
1,500 TONS (STANDARD)

ARMAMENT

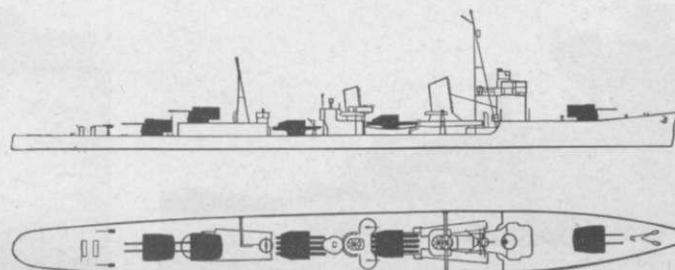
6-5" TWIN MOUNTS
2 M.G.
8-21" TORPEDO TUBES (POSSIBLY 24")
14 (?) DEPTH CHARGES

MAX. ELEV.

MAX. RANGE

PROPULSION

MACHINERY—GEARED TURBINES
BOILERS—THREE KAMPOON
FUEL—OIL, 500 TONS
DESIGNED HP—38,000
DESIGNED SPEED—34 KNOTS
ENDURANCE—5,700 MILES @ 10 KNOTS
960 MILES @ 34 KNOTS



10 ASASHIO CLASS—DD 76-85



KAGERO CLASS—DD 86-117
BELIEVED SIMILAR

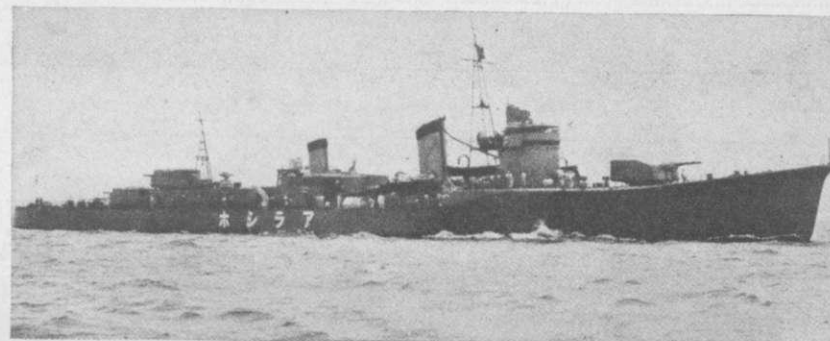
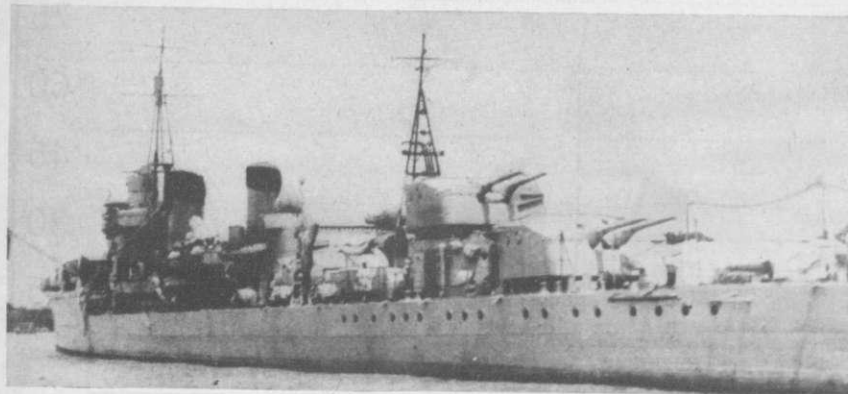


ASASHIO CLASS—DD 76-85

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—APRIL, 1943

ONI 41-42

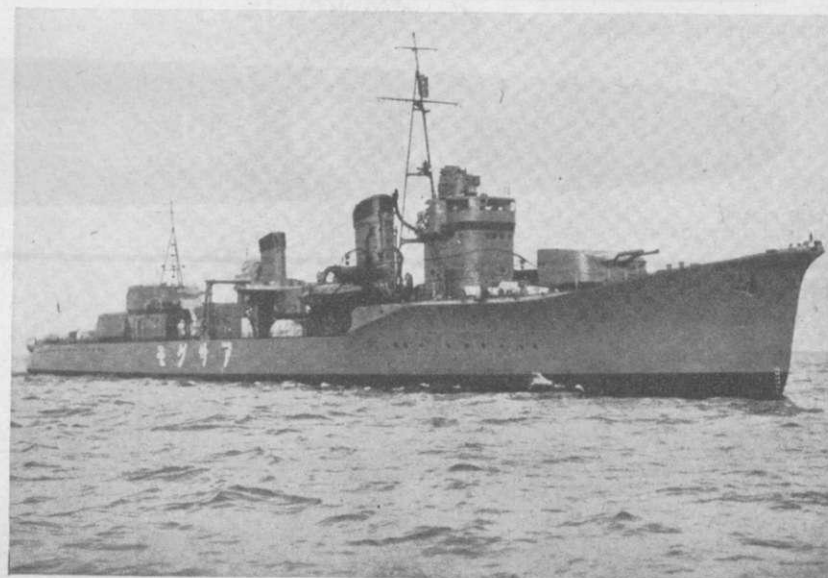
RESTRICTED



		BEGUN	COMPLETED	
ASASHIO—	DD 76	9/ 7/35	8/31/37	
ARASHIO—	DD 77	10/ 1/35	11/ 37	
OSHIO—	DD 78	8/ 5/36	10/31/37	
MICHISHIO—	DD 79	11/ 5/35	11/ 37	
ASAGUMO—	DD 80	12/23/36	3/38	REPORTED WAR LOSS
YAMAGUMO—	DD 81	11/ 4/36	3/38	REPORTED WAR LOSS
MINEGUMO—	DD 82	1937	1938	
NATSUGUMO—	DD 83	7/ 1/36	2/10/38	
KASUMI—	DD 84	12/ 1/36	6/28/39	
ARARE—	DD 85	3/ 5/37	4/15/39	

↑ ARASHIO 12/38

ASAGUMO 11/38 ↓

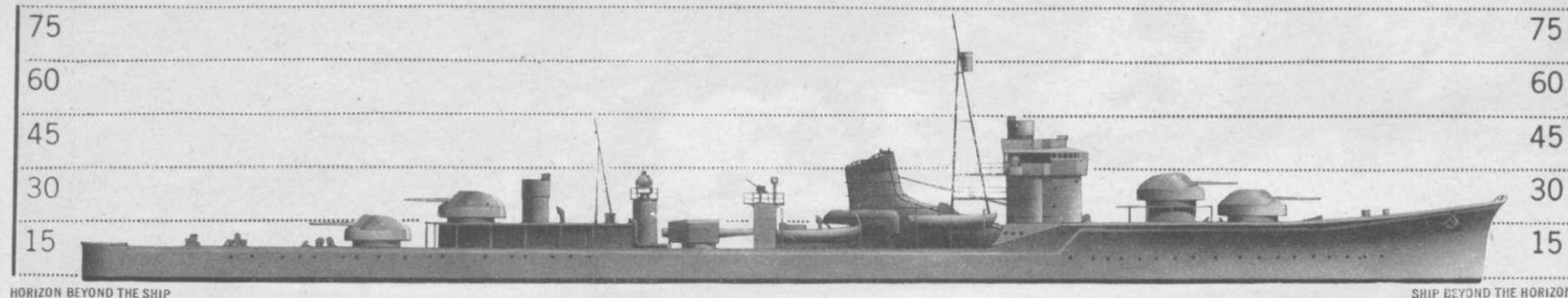


ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

TERUTSUKI CLASS*—DD III—
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—MARCH, 1943



HEIGHT OF OBSERVER



LENGTH—405' OA
BEAM —37'
DRAFT —?



DISPLACEMENT—2,300 TONS (STANDARD)

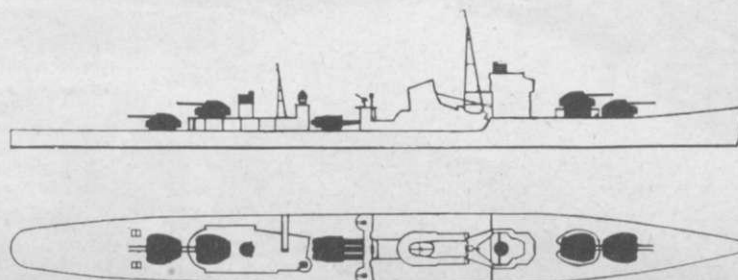
ARMAMENT

8-5" (50) DUAL PURPOSE TWINS
? SMALL AA GUNS
3-21" OR 24" TORPEDO TUBES
ONE OR MORE SETS OF RELOADS

PROPULSION

DESIGNED SPEED—34 KNOTS (E)
THIS DATA ESTIMATED FROM PHOTOGRAPHIC
MATERIAL AND DESIGN TRENDS.

DESIGN AND ARMAMENT SUGGESTS ESCORT OR SCREENING DUTIES





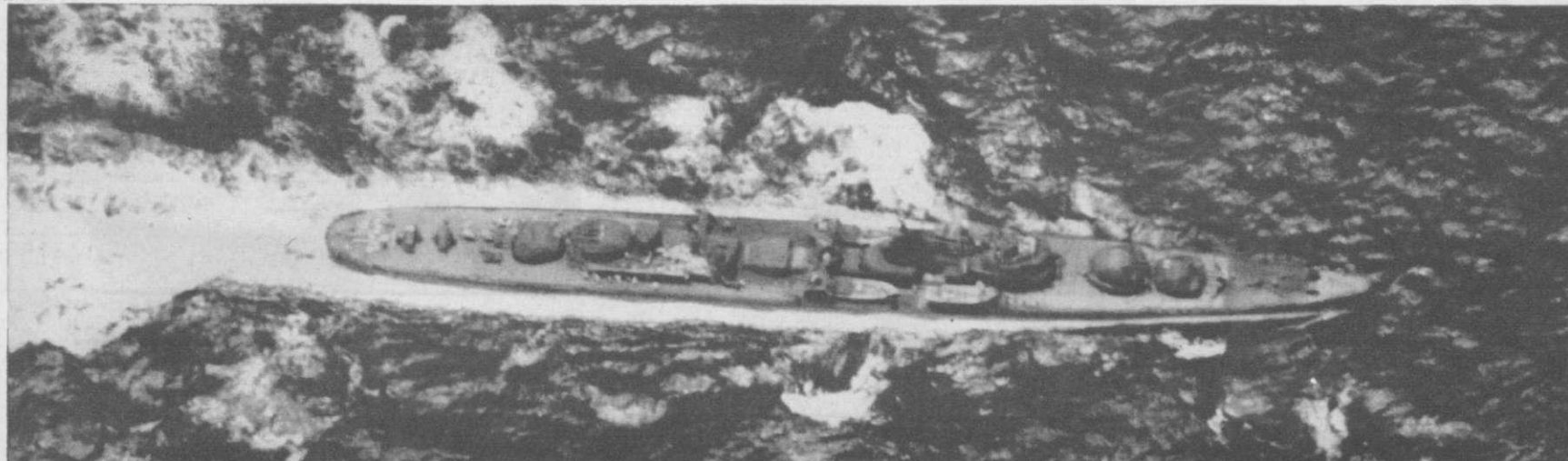
TERUTSUKI CLASS*—DD III—

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—JANUARY, 1943

COMMISSIONED: 8/42
NUMBER, NAME OF SISTERS UNKNOWN

ONI 41-42

RESTRICTED



PHOTOS TAKEN IN EMPRESS AUGUSTA BAY, SWP 9/29/42



ONI 41-42 RESTRICTED
CONDENSED AND PRINTED FOR FM 30-50, NAVAER 00-80V-57

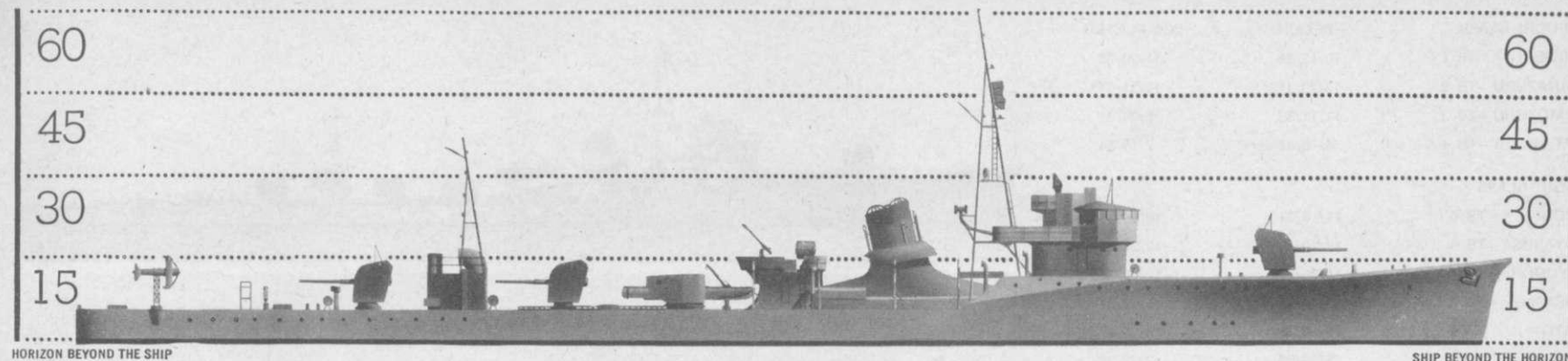
OTORI CLASS TB 5-12
IDENTICAL WITH BRIDGE VARIATIONS

CHIDORI CLASS TB 1-4



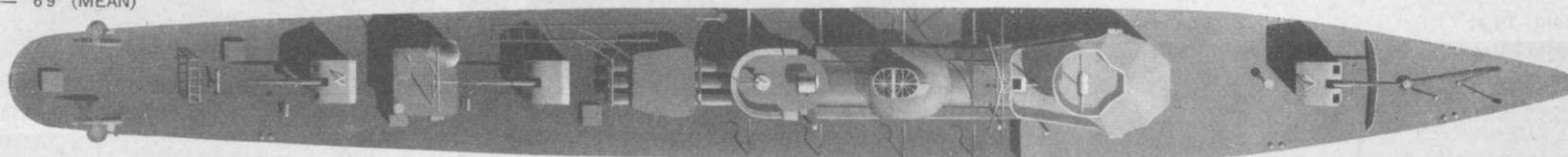
DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—JUNE, 1943

HEIGHT OF OBSERVER



LENGTH—268'6" OA
BEAM— 25'10"
DRAFT— 6'9" (MEAN)

0



DISPLACEMENT—527-595 TONS (STANDARD)

ARMAMENT

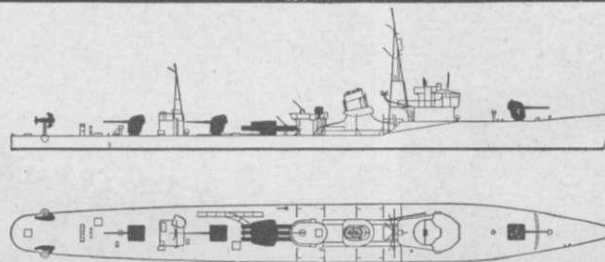
3-4"7
1-2-AAMG
3-21" TORPEDO TUBES

MAX. ELEV.
85°

MAX. RANGE (HORIZONTAL)
19,000 YDS.

PROPULSION

MACHINERY— 2 PARSONS
BOILERS— 2 KAMPON
FUEL— OIL 100-150 TONS
DESIGNED HP— 7,000-9,000
DESIGNED SPEED—26-28 KNOTS



4 CHIDORI CLASS



8 OTORI CLASS



CHIDORI CLASS—TB 1-4

DIVISION OF NAVAL INTELLIGENCE—IDENTIFICATION AND CHARACTERISTICS SECTION—JUNE, 1943

ONI 41-42

RESTRICTED

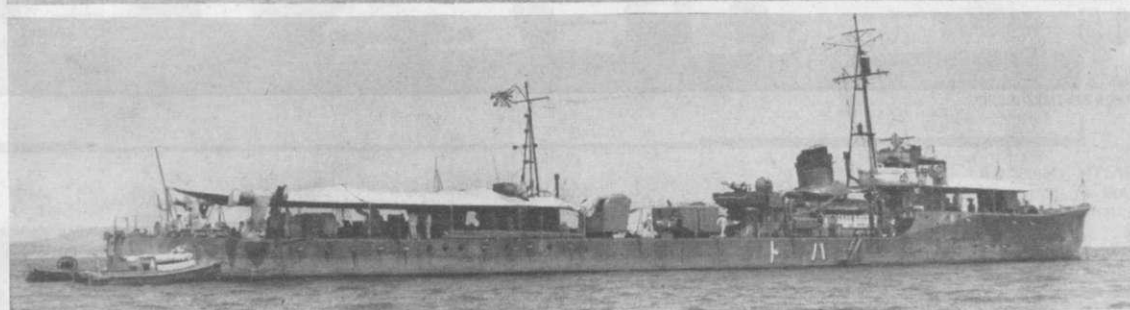
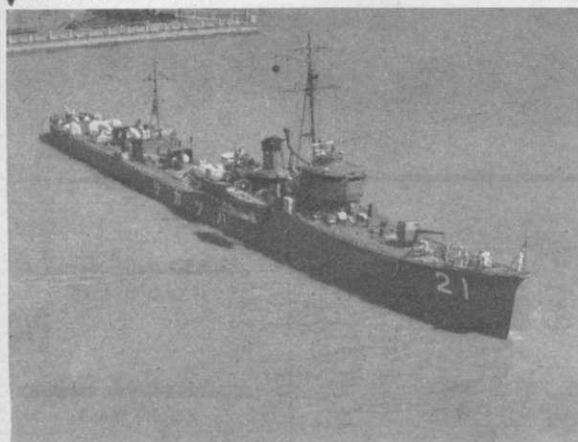
CHIDORI CLASS	BEGUN	COMPLETED
CHIDORI— TB 1	10/13/31	11/20/33
MANAZURU—TB 2	12/22/31	11/31/34
TOMOZURU—TB 3	11/11/32	2/24/34
HATSUKARI—TB 4	4/ 6/33	7/15/34

OTORI CLASS

OTORI— TB 5	11/ 8/34	10/10/36
HAYABUSA—TB 6	12/19/34	12/27/36
HIYODORI—TB 7	11/26/34	12/20/36
KASASAGI—TB 8	3/ 4/35	1/15/37
HATO— TB 9	5/28/36	8/ 7/37
SAGI— TB 10	5/20/36	7/31/37
KARI— TB 11	5/11/36	9/20/37
KIJI— TB 12	10/24/35	7/31/37

↓ HATSUKARI—TB 4

8/18/37



↑ HATO—TB 9—12/1/39

OTORI—TB 5—8/18/37 ↓

