

CARRIERS AT WAR

TECHNICAL DATA ON SHIP CLASSES

PART ONE - Japanese Warships in Service (1939-45) US Warships in Service (1939-42)

One of the hardest tasks in designing a scenario for **Carriers at War** is obtaining technical information on ship classes. This feature is intended to make that job a little bit easier.

Complete design specifications, in **Carriers at War** format, is provided for each ship class together with the names and pennant numbers¹ of every ship in each class.

All United States warships launched prior to December 31st, 1942 and all Japanese warships are included in part 1.

Part 2 (which appears in our second issue) will contain the specifications for United States warships from 1943-1945 as well as Commonwealth warships for the period 1939-1945. Finally, part 3 (in issue 3) will provide the specifications for French, Dutch, Italian and German warships for the same period as well as including some specifications for support vessels (e.g. oilers, transports, tenders) for all nationalities.

To make use of the information, locate the required ship from the listing and note the ship class to which it belongs. Now find this ship class from the appropriate table and enter these values either directly into your computer or (recommended) onto a blank design sheet.

Note that pennant numbers for CV's are included even though there is enough space in the carrier creation routine to enter most names in full.

The ship listings also include the specialized data needed to create carriers and submarines. This information appears to the right of the ship class name in the following format. For carriers, air capacity and spot number are read as follows - (A,S). For submarines, depth and speed are read as follows - (D,S).

It's best to illustrate the procedure with an example. Let's say we're designing a scenario

to recreate the Allied amphibious operations against the island of Leyte in the Philippine Group. Among others we need the specs for the battleship *New Jersey*. Consult the US ship listings (under battleships) and you'll find the pennant number of the *New Jersey* is BB62 and the ship class is BB 1942. Locate BB 1942 in the ship class listings and enter the data there onto a blank design sheet.

If you were after the US Submarine *Gato*, you'd look in the ship listings and find that its pennant number is SS212, its diving depth and submerged speed ratings are 6 and 5 respectively and it belongs to ship class SS 1941.

Throughout the war, armament, especially AA armament, evolved rapidly as the reality of naval vulnerability to air attack became apparent. For those ships commissioned pre-war, the armament ratings are those applicable at the outbreak of hostilities. Later arrivals have been given armament ratings as at the time they entered service.

As a useful rule of thumb, the size of AA batteries on United States and Japanese warships doubled between Pearl Harbour and the end of 1942, and doubled again in each succeeding year.

The remaining information necessary to complete ship and task group creation is dependent upon the scenario. The historical scenarios are the best guide for the appropriate ratings.

1. Japanese warships were not issued pennant numbers as such. For convenience (and to fit the often long Japanese names into the 5 characters allowed), Japanese warships have been given pennant numbers based on the chronological order of their ship classes and their alphabetical listing within them.

JAPANESE AIRCRAFT CARRIERS

(90,7)CV 1921	CV 1	Kaga
(90,7)CV 1925	CV 2	Akagi
(71,6)CV 1935	CV 3	Soryu
(73,6)CV 1937	CV 4	Hiryu
(84,7)CV 1939	CV 5	Shokaku
	CV 6	Zuikaku
(53,5)CV 1941	CV 7	Hiyo
	CV 8	Junyo
(60,7)CV 1943A	CV 9	Taiho
(65,6)CV 1943B	CV 10	Amagi
	CV 11	Katsuragi
	CV 12	Unryu
(75,8)CV 1944	CV 13	Shinano
(24,3)CVL1921	CVL 1	Hosho
(48,4)CVL1931	CVL 2	Ryujo
(30,4)CVL1935	CVL 3	Shoho
	CVL 4	Zuiho
(31,5)CVE1933	CVE 1	Ryuho
(27,3)CVE1939	CVE 2	Chuyo
	CVE 3	Taiyo
	CVE 4	Unyo
(24,3)CVE1941	CVE 5	Kaiyo
(33,4)CVE1942	CVE 6	Shinyo
(30,5)CVE1943	CVE 7	Chitose
	CVE 8	Chiyoda

JAPANESE BATTLESHIPS

BB 1914	BB 1	Fuso
	BB 2	Yamashiro
BB 1916	BB 3	Hyuga
	BB 4	Ise
BB 1919	BB 5	Mutsu
	BB 6	Nagato
BB 1940	BB 7	Musashi
	BB 8	Yamato
BC 1912	BC 1	Haruna
	BC 2	Hiei
	BC 3	Kirishima
	BC 4	Kongo

JAPANESE SEAPLANE TENDERS

(24,1)CAV1936 CAV 1 Chitose
CAV 2 Chiyoda
(24,1)CAV1938 CAV 3 Mizuho
(25,1)CAV1939 CAV 4 Nisshin
(12,1)AV 1936 AV 1 Kamikawa Maru
AV 2 Kimikawa Maru

JAPANESE HEAVY CRUISERS

CA 1925 CA 1 Furutaka
CA 2 Kako
CA 1926 CA 3 Aoba
CA 4 Kinugasa
CA 1927 CA 5 Ashigara
CA 6 Haguro
CA 7 Myoko
CA 8 Nachi
CA 1930 CA 9 Atago
CA 10 Chokai
CA 11 Maya
CA 12 Takao
CA 1934 CA 13 Kumano
CA 14 Mikuma
CA 15 Mogami
CA 16 Suzuya
CA 1937 CA 17 Chikuma
CA 18 Tone

JAPANESE LIGHT CRUISERS

CL 1918 CL 1 Tatsuta
CL 2 Tenryu
CL 1919 CL 3 Kiso
CL 4 Kitakami
CL 5 Kuma
CL 6 Oi
CL 7 Tama
CL 1921 CL 8 Abukuma
CL 9 Isuzu
CL 10 Kinu
CL 11 Nagara
CL 12 Natori
CL 13 Yura
CL 1923A CL 14 Yubari
CL 1923B CL 15 Jintsu
CL 16 Naka
CL 17 Sendai
CL 1939 CL 18 Kashii
CL 19 Kashima
CL 20 Katori
CL 1941 CL 21 Agano
CL 22 Noshiro
CL 23 Sakawa
CL 24 Yahagi
CL 1942 CL 25 Oyodo

JAPANESE DESTROYERS

DD 1919 DD 1 Akikaze
DD 2 Hokaze
DD 3 Minekaze
DD 4 Numakaze
DD 5 Okikaze
DD 6 Shiokaze
DD 7 Tachikaze
DD 8 Yukaze
DD 1922A DD 9 Karukaya
DD 10 Kuretake
DD 11 Sanae
DD 12 Sawarabi
DD 13 Wakatake
DD 1922B DD 14 Asakaze
DD 15 Asanagi
DD 16 Harukaze
DD 17 Hatakaze
DD 18 Hayate
DD 19 Kamikaze
DD 20 Matsukaze
DD 21 Oite
DD 22 Yunagi
DD 1925 DD 23 Fumizuki
DD 24 Kikuzuki
DD 25 Kisaragi
DD 26 Mikazuki
DD 27 Minazuki
DD 28 Mochizuki
DD 29 Mutsuki
DD 30 Nagatsuki
DD 31 Satsuki
DD 32 Uzuki
DD 33 Yayoi
DD 34 Yuzuki
DD 1927 DD 35 Akebono
DD 36 Amagiri
DD 37 Asagiri
DD 38 Ayanami
DD 39 Fubuki
DD 40 Hatsuyuki
DD 41 Isonami
DD 42 Miyuki
DD 43 Murakumo
DD 44 Oboro
DD 45 Sagiri
DD 46 Sazanami
DD 47 Shikinami
DD 48 Shinonome
DD 49 Shirakumo
DD 50 Shirayuki
DD 51 Uranami
DD 52 Ushio
DD 53 Usugumo
DD 54 Yugiri
DD 1931 DD 55 Akatsuki
DD 56 Hibiki
DD 57 Ikazuchi
DD 58 Inazuma
DD 1932 DD 59 Ariake
DD 60 Hatsuharu
DD 61 Hatsushimo
DD 62 Nenohi
DD 63 Wakaba
DD 64 Yugure
DD 1935 DD 65 Harusame
DD 66 Kawakaze
DD 67 Murasame
DD 68 Samidare

DD 69 Shigure
DD 70 Shiratsuyu
DD 71 Suzukaze
DD 72 Umikaze
DD 73 Yamakaze
DD 74 Yudachi
DD 1936 DD 75 Arare
DD 76 Arashio
DD 77 Asagumo
DD 78 Asashio
DD 79 Kasumi
DD 80 Michishio
DD 81 Minegumo
DD 82 Natsugumo
DD 83 Ooshio
DD 84 Yamagumo
DD 1938 DD 85 Amatsukaze
DD 86 Arashi
DD 87 Hagikaze
DD 88 Hamakaze
DD 89 Hatsukaze
DD 90 Hayashio
DD 91 Isokaze
DD 92 Kagero
DD 93 Kuroshio
DD 94 Maikaze
DD 95 Natsushio
DD 96 Nowake
DD 97 Oyashio
DD 98 Shiranuhi
DD 99 Tanikaze
DD100 Tokitsukaze
DD101 Urakaze
DD102 Yukikaze
DD 1941A DD103 Akigumo
DD104 Akishimo
DD105 Asashimo
DD106 Fujinami
DD107 Hamanami
DD108 Hayanami
DD109 Hayashimo
DD110 Kazegumo
DD111 Kiyonami
DD112 Kiyoshimo
DD113 Makigumo
DD114 Makinami
DD115 Naganami
DD116 Okinami
DD117 Onami
DD118 Suzunami
DD119 Takanami
DD120 Tamanami
DD121 Yugumo
DD 1941B DD122 Akizuki
DD123 Fuyutsuki
DD124 Hanatsuki
DD125 Harutsuki
DD126 Hatsutsuki
DD127 Natsuzuki
DD128 Niizuki
DD129 Shimotsuki
DD130 Suzutsuki
DD131 Teruzuki
DD132 Wakatsuki
DD133 Yoizuki
DD 1942 DD134 Shimakaze
DD 1944A DD135 Hinoki
DD136 Kaede
DD137 Kashi
DD138 Kaya
DD139 Keyaki
DD140 Kiri

Note that only United States warships launched prior to December 31st, 1942 are included in these listings. Consult part 2, which will appear in our second issue, for those ships launched after this date.

UNITED STATES BATTLESHIPS

BB 1911	BB 33	Arkansas
BB 1912	BB 34	New York
	BB 35	Texas
BB 1914	BB 36	Nevada
	BB 37	Oklahoma
BB 1915	BB 38	Pennsylvania
	BB 39	Arizona
BB 1917	BB 40	New Mexico
	BB 41	Mississippi
	BB 42	Idaho
BB 1919	BB 43	Tennessee
	BB 44	California
BB 1920	BB 45	Colorado
	BB 46	Maryland
	BB 48	West Virginia
BB 1940	BB 55	North Carolina
	BB 56	Washington
BB 1941	BB 57	South Dakota
	BB 58	Indiana
	BB 59	Massachusetts
	BB 60	Alabama
BB 1942	BB 61	Iowa
	BB 62	New Jersey

UNITED STATES AIRCRAFT CARRIERS

(90,7)CV 1925	CV 2	Lexington
	CV 3	Saratoga
(86,5)CV 1933	CV 4	Ranger
(96,8)CV 1936	CV 5	Yorktown
	CV 6	Enterprise
	CV 8	Hornet
(84,6)CV 1939	CV 7	Wasp
(98,9)CV 1942	CV 9	Essex
	CV 16	Lexington
	CV 17	Bunker Hill
(45,5)CVL1942	CVL22	Independence
	CVL23	Princeton
	CVL24	Bellevue Wood
(34,4)CVE1939	CVE26	Sangamon
	CVE27	Suwanee
	CVE28	Chenango
	CVE29	Santee
(21,3)CVE1940	CVE 1	Long Island
	CVE30	Charger
(21,3)CVE1941	CVE 9	Bogue
	CVE11	Card
	CVE12	Copahee
	CVE13	Core
	CVE16	Nassau
	CVE18	Altamaha
	CVE20	Barnes
	CVE21	Block Island
	CVE23	Breton
	CVE25	Croatan
	CVE31	Prince William

DD 1944B	DD154	Kuwa
	DD155	Maki
	DD156	Matsu
	DD157	Momi
	DD158	Momo
	DD159	Nara
	DD160	Sakura
	DD161	Sugi
	DD162	Take
	DD163	Tsubaki
	DD164	Ume
	DD165	Yanagi
	DD166	Azusa
	DD167	Enoki
	DD168	Hagi
	DD169	Hatsuyume
	DD170	Hatsuzakura
	DD171	Hishi
	DD172	Kaba
	DD173	Kaki
	DD174	Katsura
	DD175	Kusunoki
	DD176	Kuzu
	DD177	Nashi
	DD178	Nire
	DD179	Odake
	DD180	Sakaki
	DD181	Shii
	DD182	Sumire
	DD183	Tachibana
	DD184	Tochi
	DD185	Tsuta
	DD186	Wakazakura
	DD187	Yadake
	DD188	Yaezakura

UNITED STATES LIGHT CRUISERS

CL 1920	CL 4	Omaha
	CL 5	Milwaukee
	CL 6	Cincinnati
	CL 7	Raleigh
	CL 8	Detroit
	CL 9	Richmond
	CL 10	Concord
	CL 11	Trenton
	CL 12	Marblehead
	CL 13	Memphis
CL 1936	CL 40	Brooklyn
	CL 41	Philadelphia
	CL 42	Savannah
	CL 43	Nashville
	CL 44	Phoenix
	CL 47	Boise
	CL 48	Honolulu
	CL 49	St Louis
	CL 50	Helena
CL 1941	CL 55	Cleveland
	CL 56	Columbia
	CL 57	Montpelier
	CL 58	Denver
	CL 60	Santa Fe
	CL 62	Birmingham
	CL 63	Mobile
CLA1941	CLA51	Atlanta
	CLA52	Juneau
	CLA53	San Diego
	CLA54	San Juan
	CLA95	Oakland
	CLA96	Reno

JAPANESE SUBMARINES

(4,3)SS 1924	I1	- I4
(2,3)SS 1925	I153-5,	I158
(2,3)SS 1926	I122-4	
(2,4)SS 1927	I161-2,	I164
(2,3)SS 1928	I156-7,	I159-60, I163
(3,3)SS 1931	I165-7	
(4,3)SS 1932	I5	
(3,3)SS 1933	I168-73	
(4,3)SS 1934A	RO33-4	
(4,3)SS 1934B	I6	
(5,3)SS 1935	I7-8	
(3,3)SS 1936	I174-5	
(5,3)SS 1939A	I9-11	
(5,3)SS 1939B	I15-39	
(4,3)SS 1941A	RO100-117	
(4,3)SS 1941B	I176-85	
(4,3)SS 1942A	RO35-50,	RO55
(5,3)SS 1942B	I40-45	
(5,2)SS 1943A	I54,I56,I58	
(5,3)SS 1943B	I46 - I48	

UNITED STATES HEAVY CRUISERS

CA 1929A	CA 24	Pensacola
	CA 25	Salt Lake City
CA 1929B	CA 26	Northampton
	CA 27	Chester
	CA 28	Louisville
	CA 29	Chicago
	CA 30	Houston
	CA 31	Augusta
CA 1931	CA 33	Portland
	CA 35	Indianapolis
CA 1933	CA 32	New Orleans
	CA 34	Astoria
	CA 36	Minneapolis
	CA 37	Tuscaloosa
	CA 38	San Francisco
	CA 39	Quincy
	CA 44	Vincennes
CA 1937	CA 45	Witchita
CA 1942	CA 68	Baltimore
	CA 69	Boston

UNITED STATES DESTROYERS

DD 1934 DD348 Farragut
DD349 Dewey
DD350 Hull
DD351 McDonough
DD352 Worden
DD353 Dale
DD354 Monaghan
DD355 Aylwin
DD 1935A DD356 Porter
DD357 Selfridge
DD358 McDougal
DD359 Winslow
DD360 Phelps
DD361 Clark
DD362 Moffat
DD363 Balch
DD 1935B DD364 Mahan
DD365 Cummings
DD366 Drayton
DD367 Lamson
DD368 Flusser
DD369 Reid
DD370 Case
DD371 Conyngham
DD372 Cassin
DD373 Shaw
DD374 Tucker
DD375 Downes
DD376 Cushing
DD377 Perkins
DD378 Smith
DD379 Preston
DD384 Dunlap
DD385 Fanning
DD 1936A DD386 Bagley
DD387 Blue
DD388 Helm
DD389 Mugford
DD390 Ralph Talbot
DD391 Henley
DD392 Patterson
DD393 Jarvis
DD 1936B DD380 Gridley
DD382 Craven
DD400 McCall
DD401 Maury
DD 1937 DD381 Somers
DD383 Warrington
DD394 Sampson
DD395 Davis
DD396 Jouett
DD 1938A DD397 Benham
DD398 Ellet
DD399 Lang
DD402 Mayrant
DD403 Trippe
DD404 Rhind
DD405 Rowan
DD406 Stack
DD407 Sterret
DD408 Wilson
DD 1938B DD409 Sims
DD410 Hughes
DD411 Anderson
DD412 Hammann
DD413 Mustin
DD414 Russell
DD415 O'Brien

DD 1939

DD416 Walke
DD417 Morris
DD418 Roe
DD419 Wainwright
DD420 Buck
DD421 Benson
DD422 Mayo
DD423 Gleaves
DD424 Niblack
DD425 Madison
DD426 Lansdale
DD427 Hilary P Jones
DD428 Charles F Hughes
DD429 Livermore
DD430 Eberle
DD431 Plunkett
DD432 Kearney
DD433 Gwin
DD434 Meredith
DD435 Grayson
DD436 Monsen
DD437 Woolsey
DD438 Ludlow
DD439 Edison
DD440 Ericsson
DD441 Wilkes
DD442 Nicholson
DD443 Swanson
DD444 Ingraham
DD453 Bristol
DD454 Ellison
DD455 Hambleton
DD456 Rodman
DD457 Emmons
DD458 Macomb
DD459 Laffey
DD460 Woodworth
DD461 Forrest
DD462 Fitch
DD463 Corry
DD464 Hobson
DD483 Aaron Ward
DD484 Buchanan
DD485 Duncan
DD486 Lansdowne
DD487 Lardner
DD488 McCalla
DD489 Mervine
DD490 Quick
DD491 Farenholt
DD492 Bailey
DD493 Carmick
DD494 Doyle
DD495 Endicott
DD496 McCook
DD497 Frankford
DD598 Bancroft
DD599 Barton
DD600 Boyle
DD601 Champlin
DD602 Meade
DD603 Murphy
DD604 Parker
DD605 Caldwell
DD606 Coghlan
DD607 Frazier
DD608 Gansevoort
DD609 Gillespie
DD610 Hobby
DD611 Kalk
DD612 Kendrick
DD613 Laub

DD 1942

DD614 Mackenzie
DD615 McLanahan
DD616 Nields
DD617 Ordranax
DD618 Davison
DD619 Edwards
DD620 Glennon
DD621 Jeffers
DD622 Maddox
DD623 Nelson
DD624 Baldwin
DD625 Harding
DD626 Satterlee
DD627 Thompson
DD628 Welles
DD632 Cowie
DD633 Knight
DD634 Doran
DD635 Earle
DD636 Butler
DD637 Gherardi
DD638 Herndon
DD639 Shubrick
DD640 Beatty
DD641 Tillman
DD645 Stevenson
DD646 Stockton
DD647 Thorn
DD648 Turner
DD 1942 DD445 Fletcher
DD446 Radford
DD447 Jenkins
DD448 La Vallette
DD449 Nicholas
DD450 O'Bannon
DD451 Chevalier
DD465 Saufley
DD466 Waller
DD467 Strong
DD468 Taylor
DD469 De Haven
DD470 Bache
DD471 Beale
DD472 Guest
DD473 Bennett
DD474 Fullam
DD475 Hudson
DD476 Hutchins
DD477 Pringle
DD478 Stanly
DD479 Stevens
DD480 Halford
DD481 Leutze
DD482 Watson
DD498 Philip
DD499 Renshaw
DD500 Ringgold
DD501 Schroeder
DD502 Sigsbee
DD507 Conway
DD508 Cony
DD509 Converse
DD510 Eaton
DD511 Foote
DD512 Spence
DD513 Terry
DD514 Thatcher
DD515 Anthony
DD518 Brownson
DD519 Daly
DD520 Isherwood
DD521 Kimberly

DD526 Abner Read
 DD527 Ammen
 DD528 Mullany
 DD529 Bush
 DD530 Trathen
 DD531 Hazelwood
 DD532 Heermann
 DD533 Hoel
 DD544 Boyd
 DD545 Bradford
 DD550 Capps
 DD551 David W Taylor
 DD552 Evans
 DD553 John D Henley
 DD554 Franks
 DD569 Aulick
 DD570 Chas Ausburne
 DD571 Claxton
 DD572 Dyson
 DD573 Harrison
 DD574 John Rodgers
 DD575 McKee
 DD576 Murray
 DD577 Sproston
 DD578 Wickes
 DD579 William Porter
 DD580 Young
 DD581 Charrette
 DD582 Connor
 DD583 Hall
 DD587 Bell
 DD588 Burns
 DD589 Izard

UNITED STATES SUBMARINES

(2,6)SS 1918 SS130 S-25
 to to
 SS146 S-41
 (2,6)SS 1923 SS153 S-42
 to to
 SS158 S-47
 (3,3)SS 1929 SS167 Narwhal
 SS168 Nautilus
 (4,3)SS 1933 SS170 Cachalot
 SS171 Cuttlefish
 (4,3)SS 1935 SS172 Porpoise
 SS173 Pike
 SS174 Shark
 SS175 Tarpon
 SS176 Perch
 SS177 Pickerel
 SS178 Permit
 SS179 Plunger
 SS180 Pollack
 SS181 Pompano
 (4,4)SS 1937 SS182 Salmon
 SS183 Seal
 SS184 Skipjack
 SS185 Snapper
 SS186 Stingray
 SS187 Sturgeon
 (5,4)SS 1938 SS188 Sargo
 SS189 Saury
 SS190 Spearfish
 SS191 Sculpin
 SS192 Squalus
 SS193 Swordfish
 SS194 Seadragon
 SS195 Sealion
 SS196 Searaven
 SS197 Seawolf
 (5,4)SS 1939 SS198 Tambor
 SS199 Tautog
 SS200 Thresher
 SS201 Triton
 SS202 Trout
 SS203 Tuna
 SS206 Gar
 SS207 Grampus
 SS208 Grayback
 SS209 Grayling
 SS210 Grenadier
 SS211 Gudgeon
 (6,5)SS 1941 SS212 Gato

SS213 Greenling
 SS214 Grouper
 SS215 Growler
 SS216 Grunion
 SS217 Guardfish
 SS218 Albacore
 SS219 Amberjack
 SS220 Barb
 SS221 Blackfish
 SS228 Drum
 SS229 Flying Fish
 SS230 Finback
 SS231 Haddock
 SS232 Hallibut
 SS233 Herring
 SS234 Kingfish
 SS235 Shad
 SS236 Silversides
 SS237 Trigger
 SS238 Wahoo
 SS239 Whale
 SS253 Tautog
 SS254 Thresher
 SS255 Triton
 SS256 Trout
 SS257 Tuna
 SS258 Gar
 SS259 Grampus
 SS260 Grayback
 SS209 Grayling
 SS261 Grenadier
 SS262 Gudgeon
 SS263 Gato
 SS265 Greenling
 SS266 Grouper
 SS267 Grunion
 SS268 Guardfish
 SS269 Albacore
 SS275 Amberjack
 SS276 Barb
 SS277 Blackfish
 SS278 Drum
 SS279 Flying Fish
 SS280 Finback
 SS281 Haddock
 SS282 Halibut
 SS283 Herring
 SS284 Kingfish
 SS285 Shad
 SS286 Silversides
 SS287 Trigger
 SS288 Wahoo
 SS290 Whale

UNITED STATES DESTROYER ESCORTS

DE 1942 DE 5 Evarts
 DE 6 Wyffels
 DE 13 Brennan
 DE 14 Doherty
 DE 15 Austin
 DE 16 Edgar G Chase
 DE 17 Edward C Daly
 DE 18 Gilmore
 DE 19 Burden Hastings
 DE 20 Le Hardy
 DE 21 Harold C Thomas
 DE 22 Wileman

UNITED STATES SHIP CLASSES (CONTINUED FROM FACING PAGE)

NUMBER IN CLASS	#	17	6	2	2	10	6	10	12	53	x
SHIP CLASS NAME	[8]	SS 1918	SS 1923	SS 1929	SS 1933	SS 1935	SS 1937	SS 1938	SS 1939	SS 1941	PT misc
ALLIED	Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SEAPLANE	Y/N	N	N	N	N	N	N	N	N	N	N
SHIP TYPE	0-4	3	3	3	3	3	3	3	3	3	2
MAXIMUM SPEED	0-45	15	15	17	17	19	21	21	20	21	39
DISPLACEMENT	0-31	0	0	2	1	1	1	1	1	1	0
HEAVY AA	0-31	0	0	0	1	0	0	0	0	0	0
LIGHT AA	0-31	0	0	1	1	1	1	1	1	1	1
ARMOUR	0-15	0	0	0	0	0	0	0	0	0	0
PRIMARY GUNS	0-15	0	0	0	0	0	0	0	0	0	0
SECONDARY GUNS	0-15	1	1	2	0	1	1	1	1	1	0
TORPEDO TUBES	0-15	4	4	10	6	8	8	8	8	10	4
VULNERABILITY	0-7	0	1	3	2	3	3	4	4	5	2
ANTI-SUBMARINE	0-7	0	0	0	0	0	0	0	0	0	2
TORPEDO LOADS	0-3	2	2	3	3	3	3	2	2	2	1

UNITED STATES SHIP CLASSES - A CARRIERS AT WAR DESIGN FEATURE

NUMBER IN CLASS	#	2	1	3	1	24	9	4	2	11	1
SHIP CLASS NAME	[8]	CV 1925	CV 1933	CV 1936	CV 1939	CV 1942	CVL1942	CVE1939	CVE1940	CVE1942	BB 1911
ALLIED	Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SEAPLANE	Y/N	N	N	N	N	N	N	N	N	N	N
SHIP TYPE	0-4	0	0	0	0	0	0	0	0	0	1
MAXIMUM SPEED	0-45	33	30	33	30	33	32	18	17	17	21
DISPLACEMENT	0-31	17	6	10	6	14	6	10	6	5	10
HEAVY AA	0-31	8[0] a	0	8	8	12	0	2	0	2	4
LIGHT AA	0-31	6	2	5	2	14	12	4	2	2	0
ARMOUR	0-15	6	2	4	0	4	0	0	0	0	11
PRIMARY GUNS	0-15	0	0	0	0	0	0	0	0	0	12
SECONDARY GUNS	0-15	4[0] a	4	4	4	6	0	1	1	1	8
TORPEDO TUBES	0-15	0	0	0	0	0	0	0	0	0	0
VULNERABILITY	0-7	1	1	1	1	2	2	1	0	1	3
ANTI-SUBMARINE	0-7	0	0	0	0	0	0	0	0	0	0
TORPEDO LOADS	0-3	0	0	0	0	0	0	0	0	0	0

NUMBER IN CLASS	#	2	2	2	3	2	3	2	4	4	2
SHIP CLASS NAME	[8]	BB 1912	BB 1914	BB 1915	BB 1917	BB 1919	BB 1920	BB 1940	BB 1941	BB 1942	CA 1929A
ALLIED	Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SEAPLANE	Y/N	N	N	N	N	N	N	N	N	N	N
SHIP TYPE	0-4	1	1	1	1	1	1	1	1	1	1
MAXIMUM SPEED	0-45	21	21	21	22	21	21	28	28	33	33
DISPLACEMENT	0-31	11	12	13	13	13	15	18	18	23	5
HEAVY AA	0-31	4	16	16	12	12	8	20	16[20] b	20	8
LIGHT AA	0-31	2	10	4	5	0	4	4	12[14] b	28	1
ARMOUR	0-15	12	14	14	14	14	15	12	12	12	3
PRIMARY GUNS	0-15	10	10	12	12	12	8	9	9	9	10
SECONDARY GUNS	0-15	3	8	8	6	6	5	4	10[8] b	10	0
TORPEDO TUBES	0-15	0	0	0	0	0	0	0	0	0	0
VULNERABILITY	0-7	3	4	4	4	5	5	6	6	7	2
ANTI-SUBMARINE	0-7	0	0	0	0	0	0	0	0	0	0
TORPEDO LOADS	0-3	0	0	0	0	0	0	0	0	0	0

NUMBER IN CLASS	#	6	2	7	1	18	10	9	28	6	8
SHIP CLASS NAME	[8]	CA 1929B	CA 1931	CA 1933	CA 1937	CA 1942	CL 1920	CL 1936	CL 1941	CLA 1941	DD 1934
ALLIED	Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SEAPLANE	Y/N	N	N	N	N	N	N	N	N	N	N
SHIP TYPE	0-4	1	1	1	1	1	2	2	2	2	2
MAXIMUM SPEED	0-45	33	33	33	33	33	34	33	33	33	37
DISPLACEMENT	0-31	5	5	5	5	7	3	5	6	3	1
HEAVY AA	0-31	8	8	8	8	12	4	8	12	16	5
LIGHT AA	0-31	0	1	1	1	15	1	1	9	8	1
ARMOUR	0-15	3	2	5	6	6	0	5	5	4	0
PRIMARY GUNS	0-15	9	9	9	9	9	0	0	0	0	0
SECONDARY GUNS	0-15	0	0	0	4	6	12	15	15	8	3
TORPEDO TUBES	0-15	0	0	0	0	0	6	0	0	8	12
VULNERABILITY	0-7	3	3	3	4	6	2	4	5	4	3
ANTI-SUBMARINE	0-7	0	0	0	0	0	0	0	0	0	1
TORPEDO LOADS	0-3	0	0	0	0	0	2	0	0	1	1

NUMBER IN CLASS	#	8	18	8	4	5	10	12	96	176	66
SHIP CLASS NAME	[8]	DD 1935A	DD 1935B	DD 1936A	DD 1936B	DD 1937	DD 1938A	DD 1938B	DD 1939	DD 1942	DE 1942
ALLIED	Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SEAPLANE	Y/N	N	N	N	N	N	N	N	N	N	N
SHIP TYPE	0-4	2	2	2	2	2	2	2	2	2	2
MAXIMUM SPEED	0-45	37	37	39	39	39	39	35	35	35	20
DISPLACEMENT	0-31	1	1	1	1	1	1	1	1	1	1
HEAVY AA	0-31	8	5	4	4	4	4	5	5	5	2
LIGHT AA	0-31	2	1	1	1	1	1	1	1	4	2
ARMOUR	0-15	0	0	0	0	0	0	0	0	1	0
PRIMARY GUNS	0-15	0	0	0	0	0	0	0	0	0	0
SECONDARY GUNS	0-15	4	3	2	2	2	2	3	3	2	0
TORPEDO TUBES	0-15	8	12	15	15	15	15	8	10	10	0
VULNERABILITY	0-7	4	3	3	2	3	3	3	4	6	3
ANTI-SUBMARINE	0-7	0	1	2	2	2	1	2	1	3	5
TORPEDO LOADS	0-3	1	1	1	1	1	1	1	1	1	0

JAPANESE SHIP CLASSES - A CARRIERS AT WAR DESIGN FEATURE

NUMBER IN CLASS	#	1	1	1	1	2	2	1	3	1	1
SHIP CLASS NAME	[8]	CV 1921	CV 1925	CV 1935	CV 1937	CV 1939	CV 1941	CV 1943A	CV 1943B	CV 1944	CVL1921
ALLIED	Y/N	N	N	N	N	N	N	N	N	N	N
SEAPLANE	Y/N	N	N	N	N	N	N	N	N	N	N
SHIP TYPE	0-4	0	0	0	0	0	0	0	0	0	0
MAXIMUM SPEED	0-45	28	31	34	34	34	26	26	34	27	25
DISPLACEMENT	0-31	17	17	8	9	12	11	11	8	29	4
HEAVY AA	0-31	16	12	12	12	16	12	12	12	28	0
LIGHT AA	0-31	3	4	4	4	5	3	5	11	18	4
ARMOUR	0-15	11	10	2	2	9	0	0	4	8	0
PRIMARY GUNS	0-15	0	0	0	0	0	0	0	0	0	0
SECONDARY GUNS	0-15	14	6	6	6	8	6	6	6	8	0
TORPEDO TUBES	0-15	0	0	0	0	0	0	0	0	0	0
VULNERABILITY	0-7	0	1	2	2	2	1	0	1	3	0
ANTI-SUBMARINE	0-7	0	0	0	0	0	0	0	0	0	0
TORPEDO LOADS	0-3	0	0	0	0	0	0	0	0	0	0

NUMBER IN CLASS	#	1	2	1	3	1	1	2	2	1	1
SHIP CLASS NAME	[8]	CVL1931	CVL1935	CVE1933	CVE1939	CVE1941	CVE1942	CVE1943	CAV1936	CAV1938	CAV1939
ALLIED	Y/N	N	N	N	N	N	N	N	N	N	N
SEAPLANE	Y/N	N	N	N	N	N	N	N	Y	Y	Y
SHIP TYPE	0-4	0	0	0	0	0	0	0	0	0	0
MAXIMUM SPEED	0-45	29	28	27	21	24	22	29	29	22	28
DISPLACEMENT	0-31	4	6	6	8	7	8	5	5	5	5
HEAVY AA	0-31	8	8	8	8	8	8	8	4	6	6
LIGHT AA	0-31	4	1	5	1	3	4	4	2	2	3
ARMOUR	0-15	1	0	0	0	0	0	0	0	0	0
PRIMARY GUNS	0-15	0	0	0	0	0	0	0	0	0	0
SECONDARY GUNS	0-15	0	4	4	4	4	4	4	2	3	3
TORPEDO TUBES	0-15	0	0	0	0	0	0	0	0	0	0
VULNERABILITY	0-7	1	1	1	0	1	2	0	2	2	2
ANTI-SUBMARINE	0-7	0	0	0	0	0	0	0	0	0	0
TORPEDO LOADS	0-3	0	0	0	0	0	0	0	0	0	0

NUMBER IN CLASS	#	2	2	2	2	2	4	2	2	4	4
SHIP CLASS NAME	[8]	AV 1936	BB 1914	BB 1916	BB 1919	BB 1940	BC 1912	CA 1925	CA 1926	CA 1927	CA 1930
ALLIED	Y/N	N	N	N	N	N	N	N	N	N	N
SEAPLANE	Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SHIP TYPE	0-4	0	1	1	1	1	1	1	1	1	1
MAXIMUM SPEED	0-45	16	25	25	25	27	30	33	33	34	34
DISPLACEMENT	0-31	5	16	16	17	29	15	4	4	6	6
HEAVY AA	0-31	2	8	8	8	12	8[4] c	4	4	8	8
LIGHT AA	0-31	1	2	3	3	4	3	2	2	1	2
ARMOUR	0-15	0	12	12	11	15	8	1	1	4	5
PRIMARY GUNS	0-15	0	12	12	8	9	8	6	6	10	10
SECONDARY GUNS	0-15	1	14	15	9	12	14	0	2	4	4
TORPEDO TUBES	0-15	0	0	0	0	0	0	8	8	8	15
VULNERABILITY	0-7	0	3	3	2	5	4	3	3	4	4
ANTI-SUBMARINE	0-7	0	0	0	0	0	0	0	0	0	0
TORPEDO LOADS	0-3	0	0	0	0	0	0	2	2	3	2

NUMBER IN CLASS	#	4	2	2	5	6	1	3	3	4	1
SHIP CLASS NAME	[8]	CA 1934	CA 1937	CL 1918	CL 1919	CL 1921	CL 1923A	CL 1923B	CL 1939	CL 1941	CL 1942
ALLIED	Y/N	N	N	N	N	N	N	N	N	N	N
SEAPLANE	Y/N	Y	Y	N	N	N	N	N	N	N	Y
SHIP TYPE	0-4	1	1	2	2	2	2	2	2	2	2
MAXIMUM SPEED	0-45	35	35	33	36	36	36	35	18	35	36
DISPLACEMENT	0-31	6	6	2	2	2	2	3	3	3	5
HEAVY AA	0-31	8	8	1	1	1	1	1	2	2	4
LIGHT AA	0-31	2	2	1	1	1	1	1	1	7	2
ARMOUR	0-15	6	6	2	3	3	2	3	1	1	1
PRIMARY GUNS	0-15	10	8	0	0	0	0	0	0	0	0
SECONDARY GUNS	0-15	4	4	4	4	4	6	4	3	6	6
TORPEDO TUBES	0-15	12	12	6	8	8	4	8	4	8	0
VULNERABILITY	0-7	3	5	1	2	3	2	3	2	3	4
ANTI-SUBMARINE	0-7	0	0	0	0	0	0	0	0	2	0
TORPEDO LOADS	0-3	2	2	2	2	2	2	2	1	2	0

JAPANESE SHIP CLASSES (CONT.)

NUMBER IN CLASS	#	8	5	9	12	20	4
SHIP CLASS NAME	[8]	DD 1919	DD 1922A	DD 1922B	DD 1925	DD 1927	DD 1931
ALLIED	Y/N	N	N	N	N	N	N
SEAPLANE	Y/N	N	N	N	N	N	N
SHIP TYPE	0-4	2	2	2	2	2	2
MAXIMUM SPEED	0-45	39	36	37	37	34	34
DISPLACEMENT	0-31	1	0	1	1	1	1
HEAVY AA	0-31	0	0	3	2	6	4
LIGHT AA	0-31	1	1	1	2	1	2
ARMOUR	0-15	0	0	0	0	0	0
PRIMARY GUNS	0-15	0	0	0	0	0	0
SECONDARY GUNS	0-15	2	1	2	1	3	2
TORPEDO TUBES	0-15	6	4	4	6	9	9
VULNERABILITY	0-7	1	1	2	3	3	3
ANTI-SUBMARINE	0-7	1	3	2	4	2	3
TORPEDO LOADS	0-3	2	1	1	1	1	2

KEY TO SHIP CLASS NOTES

- a. The Lexington was sunk before she had a chance to be fitted with the revised AA battery.
- b. The bracketed figures refer to the South Dakota (BB 57). She was fitted out as a Force Flagship.
- c. The bracketed figure refers to the Hiei (BC 2).

NUMBER IN CLASS	#	6	10	10	18	19	12	1	18	23	4
SHIP CLASS NAME	[8]	DD 1932	DD 1935	DD 1936	DD 1938	DD 1941A	DD 1941B	DD 1942	DD 1944A	DD 1944B	SS 1924
ALLIED	Y/N	N	N	N	N	N	N	N	N	N	N
SEAPLANE	Y/N	N	N	N	N	N	N	N	N	N	N
SHIP TYPE	0-4	2	2	2	2	2	2	2	2	2	3
MAXIMUM SPEED	0-45	33	35	35	35	35	33	40	28	28	18
DISPLACEMENT	0-31	1	1	1	1	1	2	1	1	1	1
HEAVY AA	0-31	5	5	6	6	6	4	6	3	3	0
LIGHT AA	0-31	1	1	1	1	1	1	1	3	3	1
ARMOUR	0-15	0	0	0	0	0	0	0	0	0	0
PRIMARY GUNS	0-15	0	0	0	0	0	0	0	0	0	0
SECONDARY GUNS	0-15	3	3	3	3	3	4	3	0	0	1
TORPEDO TUBES	0-15	6	8	8	8	8	4	15	4	4	6
VULNERABILITY	0-7	4	4	4	5	5	5	4	3	3	2
ANTI-SUBMARINE	0-7	2	2	2	2	4	4	2	2	4	0
TORPEDO LOADS	0-3	2	2	2	2	2	2	1	1	1	3

NUMBER IN CLASS	#	4	3	3	5	3	1	6	2	1	2
SHIP CLASS NAME	[8]	SS 1925	SS 1926	SS 1927	SS 1928	SS 1931	SS 1932	SS 1933	SS 1934A	SS 1934B	SS 1935
ALLIED	Y/N	N	N	N	N	N	N	N	N	N	N
SEAPLANE	Y/N	N	N	N	N	N	N	N	N	N	N
SHIP TYPE	0-4	3	3	3	3	3	3	3	3	3	3
MAXIMUM SPEED	0-45	20	15	20	20	21	18	23	19	20	23
DISPLACEMENT	0-31	1	1	1	1	1	1	1	0	1	1
HEAVY AA	0-31	0	0	0	0	1	0	1	1	1	0
LIGHT AA	0-31	0	0	1	1	1	1	1	1	1	1
ARMOUR	0-15	0	0	0	0	0	0	0	0	0	0
PRIMARY GUNS	0-15	0	0	0	0	0	0	0	0	0	0
SECONDARY GUNS	0-15	1	1	1	1	0	1	0	0	0	2
TORPEDO TUBES	0-15	8	4	6	8	6	6	6	4	6	6
VULNERABILITY	0-7	2	2	3	3	3	3	4	3	3	3
ANTI-SUBMARINE	0-7	0	0	0	0	0	0	0	0	0	0
TORPEDO LOADS	0-3	2	3	2	2	2	3	2	3	3	3

NUMBER IN CLASS	#	2	3	21	18	10	17	6	3	3	x
SHIP CLASS NAME	[8]	SS 1936	SS 1939A	SS 1939B	SS 1941A	SS 1941B	SS 1942A	SS 1942B	SS 1943A	SS 1943B	PG misc
ALLIED	Y/N	N	N	N	N	N	N	N	N	N	N
SEAPLANE	Y/N	N	N	N	N	N	N	N	N	N	N
SHIP TYPE	0-4	3	3	3	3	3	3	3	3	3	2
MAXIMUM SPEED	0-45	23	24	24	14	23	20	24	18	24	20
DISPLACEMENT	0-31	1	2	1	0	1	1	1	1	1	0
HEAVY AA	0-31	0	0	0	0	0	1	0	0	0	0
LIGHT AA	0-31	1	1	1	1	1	1	1	1	1	2
ARMOUR	0-15	0	0	0	0	0	0	0	0	0	0
PRIMARY GUNS	0-15	0	0	0	0	0	0	0	0	0	0
SECONDARY GUNS	0-15	1	1	1	0	1	0	1	1	1	1
TORPEDO TUBES	0-15	6	6	6	4	6	4	6	6	8	2
VULNERABILITY	0-7	4	5	5	4	5	5	5	4	4	2
ANTI-SUBMARINE	0-7	0	0	0	0	0	0	0	0	0	1
TORPEDO LOADS	0-3	2	3	3	2	2	3	3	3	3	1