

General Quarters III

Merchant **S**HIP **S**YSTEM



AK



AO



AP

by L L Gill and Bruce Wright
with ship counters by Michael Baulch



The **MERCHANT SHIP SYSTEM**

a *GENERAL QUARTERS III* Supplement

By L.L. Gill, Bruce Wright, and Mike Baulch

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The Merchant Ship System

Welcome aboard the Merchant Ship System, or MSS for short. Most of us generally pay little attention to merchant ships, regarding them as mere targets or generic “sea trucks.” However, merchant ships in the first half of the Twentieth Century were every bit as varied as warships and each had its own characteristics and capabilities, which can enrich your naval simulations and campaigns. To fill this long standing void, Bruce and I are pleased to present the MSS, the first systematic approach to standardize the key characteristics of merchant ships and provide you with data for hundreds of merchant ships from the 1930s and the WW II years. In addition, the MSS also presents a number of Convoy Logs with a selection of already prepared merchant Ship Logs for use in your simulations and a set of cardstock counter sheets to print for use until you can commission your own miniature merchant fleet. In short, the MSS has every thing you need to add merchant ships to your simulations.

The MSS is built around the concept that the main utility of a merchant ship in wartime is determined by her cargo capacity and the type(s) of cargo she carries. Accordingly, cargo capacity is defined in dry cargo holds, POL (Petroleum, Oil and Lubricant) tanks, refrigeration spaces (for perishable cargo) and troop berthing spaces - collectively referred to as “holds” - to be listed on her Ship Log, along with the number of Hull boxes, which reflects overall size. The ship’s value at any point in time is dependent on the quantity and type of cargo carried. Victory Points (VPs) are divided into a cargo value and a basic, empty hull value expressed as “C + xx VPs.” A merchant vessel in ballast has VPs only for her basic hull value, while a loaded ship’s VPs are the sum of her cargo and her basic empty hull value. Cargo values and further details are described in **GQ 3.3** rule Section 1.18.5, which is reproduced below for your convenience. In addition to standard cargo values for normal voyages, special values are also provided for urgent and critical cargoes to reflect special tactical and situational conditions. For example, the famous tanker *Ohio*, carrying fuel and avgas to besieged Malta in August 1942 was worth much more than an equivalent AO in a routine 1944 Atlantic convoy.

For your convenience, the MSS is divided into three parts: the Data file, the Convoy Log file and the Ship Counter file.

The DATA file provides the Hull worksheet for determining the number of Hull boxes to list on the merchant Ship Logs, the Formula worksheet listing the formulas used to calculate cargo “holds” and cargo values and Data sheets listing merchant ships by type and nationality. Individual ships are listed on the Data sheets with the following information:

Year - the year launched or commissioned.

Name - the name of the vessel. Naval auxiliaries are indicated in bold font using the naval designation if renamed from her previous commercial name.

Type - AC = collier, AE = explosives freighter, AF = refrigerated freighter, AK = dry cargo ship, AMC = armed merchant cruiser (converted from an AK or AP), AO = tanker (oiler in naval parlance) and AP = passenger liner. AKAs and APAs are cargo and liners equipped with landing craft and cargo handling equipment for amphibious assault operations across open beaches.

Kts - maximum sustained speed.

Engine - propulsion type: C = coal fired steam engine, D = Diesel engine and O = oil fueled steam engine.

GRT - Gross Registered Tons, the standard commercial measure of hull volume. This is a measure of volume, not weight and is quite different from standard displacement tonnage used for warships.

GRT x .75 – a base of 75% of GRT used in calculating the basic, empty hull value of a merchant ship.

Hull VPs - the basic, empty hull value of a ship calculated using 75% of GRT times the factor listed at the top of the column. A larger factor is listed for AE, AF and APAs to reflect the additional value of special cargo handling, refrigeration and insulation equipment required for these types. *Note this value is listed in tenths and should be rounded to the nearest ¼ VP.*

NRT - Net Registered Tons, the standard commercial measure of cargo capacity, determined by subtracting engineering, fuel and crew spaces from a merchant’s GRT. This is a measure of volume capacity and should not be confused with weight, which will vary for each type of cargo. *A cubic foot of iron weighs a lot more than a cubic foot of cotton, etc.*

Holds – this is determined by dividing the NRT by 1,000. Each hold (or tank space for AOs) = 1,000 NRT (Net Registered Tons). The number of holds is then rounded to the nearest whole number. This provides a graphic description of the total cargo capacity for Ship Logs, but does not necessarily reflect the specific cargo hold layout of any individual ship.

Cargo VPs – the loaded cargo value of a ship calculated by multiplying the number of holds times the cargo factor at the top of the column. *Note this value is listed in tenths and should be rounded to the nearest ¼ VP.*

Troops – three columns are provided for troop capacity using the same process as for cargo. The total number of troops in the first column is divided into 400 troop berthing spaces in the middle column and that in turn is multiplied by the factor at the top of the VP column to provide an equivalent VP value in the third column. *Note the troop spaces value is listed in tenths and should be rounded to the nearest whole troop space. The VP value should in turn be rounded to the nearest ¼ VP.*

LOADED VPs – This is an indicative *approximation* of the sum of the cargo hold VPs and basic hull VPs [C + xx VPs] for a loaded merchant ship listed in tenths. Basic hull VPs and each cargo type VPs should in fact be individually rounded to the nearest ¼ VP before being summed together. Therefore, the correct loaded VP value for a ship may vary from the approximation in tenths.

Defensive Armament – this is a listing of the defensive armament broken into LA (low angle), DP (dual purpose), Medium AA and Lt AA (light AA) where specific data has been found. Total guns are listed and need to be broken into **GQ** two-gun Armament boxes and sided AA batteries when preparing Ship Logs.

On the AMC datasheets, a Broadside section replaces the various cargo sections with VP values for broadside guns and torpedo tubes (TT). The total VP value = basic hull value + armament VP value + Raider VP (for those ships operating as disguised merchant raiders). As with other merchant ships,

each section's VP value should be individually rounded to the nearest ¼ VP before being summed together. The "Other" section lists mines. FPs (Float Planes), DCs (Depth Charges) and MTBs carried in addition to the main armament and minor defensive armament listed in the final section. This additional equipment is not used in calculating the Broadside VP value for an AMC. The AMC equivalent value is thus a composite of merchant ship and warship, consisting of a basic hull value (potential for re-conversion to her former cargo or transport capacity) plus offensive armament capacity and a surprise factor, where applicable, for AMCs operating as disguised merchant raiders.

Throughout the datasheets, GRT and NRT data is in bold font when taken from standard commercial data sources of the period. These primarily consist of Lloyds Register of Shipping, Talbot-Booth and equivalent national sources. When only one of the standard volume measures (GRT or NRT) is available, the other has been derived using the standard formula $NRT = .6 \times GRT$. This provides an approximation, indicated by the use of non-bold font, which is consistently quite close to the actual measure. Finally, in a few cases, data has been shaded in light yellow to signify it is estimated or based on incomplete sources pending further research and thus should be used with caution. The Defensive Armament section remains blank in many cases, as reliable data for particular ships has not yet been located.

There were thousands of merchant ships of all sizes and configurations in the 1930s through the WW II years and detailing them is a truly massive project. Thus, the datasheets are a work in progress and will continue to be augmented with new ships to enhance the initial base of more than 400 ships and provide new data when it becomes available. Anyone who has clarifications or additional information on any of the ships listed is invited to contact us through ODGW so that we may update the data for the benefit of all our shipmates.

Ships are listed in worksheets by type, then in alphabetical order by nationality for easy reference. Changes from a preceding revision of a data sheet (identified in the upper right-hand corner) are signified by tan shading of the left-most "Year" column for new ships and the specific data cell for existing ships. The data sheets are designed to provide a handy source for preparing merchant Ship Logs for your scenarios and campaigns. The data can also be easily modified for use with other naval rule systems as needed. The use of standard commercial measures like GRT and NRT was intentional to facilitate wider applicability.

The CONVOY LOGS file contains a number of already prepared merchant Ship Logs for different periods and theaters. Simply circle ships as needed for a scenario, convoy or campaign and your merchant ships are ready to go. You can designate specific cargos for specific ships, if required, as part of the scenario or campaign set-up instructions. Note that the cargo "holds" are color coded to facilitate quickly determining the type of cargo that can be carried. Refrigerated holds are shown in light blue to differentiate them from regular dry cargo holds. The VP values per hold or troop space for the different types of cargo are listed immediately below the lower left Ship Logs on each sheet for ease of reference.

Most merchant ships were initially armed with an old LA (low angle) 3" – 5" gun of WW I or earlier, uncertain vintage for defense against surface raiders, or an improbable attack by a surfaced submarine, and a couple of machine guns. These guns were usually manned by naval gun crews, but operated under local control without any form of centralized fire control, resulting in limited effectiveness. [Note that merchant ships lack the fire control "DCT" designation in the upper, special damage row of their Ship Logs.] As armaments became available and the air threat was better appreciated, many ships were equipped with a DP (dual purpose) 3" – 5" gun and 20mm AA guns. Medium AA 37mm – 40 mm guns were added, when supplies allowed, to merchants that sailed in areas subject to opposing air attacks.

Detailed armament data for specific merchant ships in this era is, unfortunately, seldom available at this remove. Therefore, *representative* gun boxes and AA factors have been used on the Ship Logs in many cases to provide typical defensive armament capacities for the period or theater. Small DP, primarily AA guns are indicated in red as noted in the battery size listed above the top left of the Ship Log. Where specific armament data has been located for a ship, the data listed on the datasheets has been used. This is an area that we hope to upgrade with the assistance of other shipmates (hint, hint).

A blank Excel convoy sheet is also provided to enable you to easily create your own Convoys using the data worksheets from the Data file. Refer to them to quickly determine the number of Hull boxes for a Ship Log, how many and what type of holds or troop spaces to list and the VP value to assign. Example graphics of the various types of cargo holds and troop spaces, along with samples of the armament boxes and fuel type designators, are provided below the blank worksheet so you can easily copy and paste as needed to create new Ship Logs. We will continue to add new Convoy Logs as they are completed and invite you to share yours so that shipmates in our hobby can benefit from each other's labors.

The SHIP COUNTERS file, which Mike has generously developed, contains a number of color counter sheets in four scales for those who don't yet have the requisite miniature merchant fleets. Simply download and print them on cardstock to generate a set of counters to use until you have a chance to commission your own miniatures. Counters are presented in 1:2400, 1:3000, 1:4800 and 1:6000. Select the scale needed to accompany your warship miniatures. The counters are generic renderings of merchant ships, escorts and submarines. While a specific ship may have been used as a basis (i.e. the Allied T2 tanker for the large tanker) for a counter, feel free to use them for any ship of any nation that falls within the general size parameters. Additionally, some ASW escorts and submarine counters have also been included so as to give the all the ships (the hunted and hunters) needed for a potential convoy action. Just download and print them on cardstock if you don't already have the needed escort miniatures or submarines to fill-in a gap or two for a convoy engagement.

The counters in each scale are organized as follows:

AP 01 to AP 30 - Passenger and passenger/cargo liners used primarily as troop transports. Two sizes of AP are provided:

AP 01 to AP 20 - Large passenger/cargo ships (approximately 15,000 – 17,000 GRT)

AP 21 to AP 30 - Medium passenger/cargo ships (approximately 9,000 – 12,000 GRT)

AO 01 to AO 25 - Tankers used to carry all manner of raw and refined petroleum products, everything from raw crude to refined gasoline and AvGas. Two sizes are presented:

AO 01 to AO 16 - Large tanker (8,000 – 9,000 GRT)

AO 17 to AO 25 - Medium tanker (6,000 – 7,000 GRT)

AC 01 to AC 05 - Colliers/ore carriers used for coal or raw ore. A medium collier (5,000 – 6,000 GRT) type is provided

AK 01 to AK 90 - Cargo ships used to carry all types of dry cargo; from food to ammunition, from tanks to toilet paper. Some of these AKs were also used as troop transports after suitable conversion. Three sizes are presented:

AK 01 to AK 20 - Large cargo ships (approximately 8,000 – 10,000 GRT)

AK 21 to AK 50 and **AK 71 to AK 90** - Medium cargo ships (approximately 6,000 – 8,000 GRT)

AK 51 to AK 70 - Small cargo ships (4,000 - 6,000 GRT)

Res 01 to Res 02 - Convoy rescue ships converted from small liners. Used during the early war until replaced by purpose-built rescue ships (based on frigates), starting in 1944

CAM 01 to CAM 03 - Catapult auxiliary ships (based on *Empire Darwin*) with a single Hurricane fighter. CAM ships began appearing in 1941 as an emergency stopgap means of countering German long range air attacks and reconnaissance

AA 01 to AA 05 - Auxiliary anti-aircraft escort ships converted from a merchant (based on *HMS Springbank*). They essentially have the armament, sensors and AA fire control of a light AA cruiser. Several ships were converted from 1940 on

Corv 01 to Corv 10 - Generic ASW escort (based on RN *Flower* class corvette). Similar designs served with the various navies, with the RN *Flower* class being the most numerous

Tr 01 to Tr 10 - Generic ASW trawler (based on RN *Dance* class). Many classes of trawlers were used as convoy escorts

Slp 01 to Slp 10 - Generic ASW sloop (based on RN *Black Swan* class). Several RN classes were used as convoy escorts

SS 01 to SS 06 - Generic medium submarine (based on German *Type VII*) of approximately 750 tons

SS 07 to SS 10 - Generic large submarine (based on German *Type IX*) of approximately 1000 tons

In summary, the MSS provides all you need to add merchant ships and convoys to your simulations. You will find their individuality and varied cargoes will really enhance your scenarios and campaigns. We periodically plan to add new ships and revisions to the MSS files to expand the coverage. With your help, we can make a sizeable dent in a truly massive project and provide a long needed resource for wargamers and naval enthusiasts alike to use.

Repeated for your convenience from *GENERAL QUARTERS* version 3.3, Part 1:

1.18.5 Merchant Ship VPs

Merchant ship VPs are listed on Ship Logs using the format “C+ # VPs” representing the cargo value plus base hull value. Cargo values are standardized as listed below, but can be altered as needed in scenario set-ups, to reflect vital urgent or critical cargos. Unless unique cargo values are listed for the scenario, the standard cargo values will be used.

Merchant ship values are derived using the Merchant Ship System (MSS), which is based on well known commercial standards: **GRT** (gross registered tonnage), a measure of a vessel’s total hull volume, and **NRT** (net registered tonnage), a standard measure of cargo volume, that are quite different from the displacement tonnage used for warships. GRT is discounted for the volume occupied by the crew, engineering spaces and fuel to derive NRT. If NRT is unavailable, .6 x GRT is a good approximation. Formula details, data for hundreds of merchant ships and additional Convoy Logs are listed in the MSS folder available in the Bonus Files on the ODGW website.

- **Hull Value** A merchant ship’s base hull value is her value empty, without cargo. When sailing in ballast, it is her total value. Refrigeration ships (AFs) and assault transports (AKAs and APAs) have enhanced values for refrigeration, landing craft and special cargo handling gear.
- **Cargo Value** Cargo capacity is listed on merchant Ship Logs as cargo “holds” or troop spaces, each of which represents 1,000 NRT or 400 troops. Individual loaded “hold” or troop space cargo values depend on cargo type:
Mixed (artillery, coal, food, supplies and vehicles) = ¼ VP
Explosives (ammo, bombs, mines, and torpedoes) = ½ VP
POL (Petroleum-Oil-Lubricant or aviation gas) = ½ VP
Troops (400 troops or personnel per space) = ¼ VP
The cargo value of a loaded merchant is equal to the sum of her “hold” VPs. Unless otherwise indicated in the scenario set-up, a ship is loaded with the cargo listed on her Ship Log. *Cargo VP values are also listed beneath the Ship Logs on the Convoy Logs for easy reference.*
- **VP Total** The VP value of a merchant ship is equal to the sum of the cargo value + the base hull value listed on her merchant Ship Log. *Example: a freighter (AK) with “C + 2 VPs” and 6 “holds” listed on her Ship Log has a value of 2 VPs if sailing in ballast (i.e., without cargo). When carrying cargo, her value would be 3½ VPs (2 + 6 x ¼) or 5 VPs (2 + 6 x ½) if carrying explosives.*
- **Special Cargo** Certain cargo values can be specified in the scenario set-up to reflect specific regional conditions and vital tactical requirements. These cargos must be designated as Urgent or Critical:
 - Urgent** High value cargo urgently needed to meet the current regional logistics requirements. Urgent cargo value = double the standard cargo value.
 - Critical** Military cargo that is critical to sustaining the tactical situation in succeeding days or weeks. Critical cargo value = triple the standard cargo value.
 - AvGas** Aviation gas needed for an airbase under siege to continue aerial operations is a special form of critical cargo equal to 1 VP per “hold.” *When a high speed APD or ML ships a cargo of AvGas, add 1 VP to the VP value listed on her Ship Log for the scenario.*

MSS VP Formulas

Ref: **GQ 3.3** rule Section 1.18.5

Rev G

Empty Hull Value:

AC • AE • AK • AO • AP GRT x .75/4000 tons = VP
 AKA • APA GRT x .75/3000 tons = VP
 AF GRT x .75/3000 tons = VP

Round to nearest ¼ VP

[reduced factor reflects assault handling equipment and landing craft]
 [reduced factor reflects added insulation and refrigeration plant]

Cargo Value:

a) Determine equivalent "holds" and round to nearest whole number

Mixed Cargo NRT/1000 tons = Equivalent Holds
 POL & Liquid Cargo NRT/1000 tons = Equivalent Tank Spaces
 Troops Troops/400 = Equivalent Troop Spaces

[Use GRT x .6 when NRT not available]

[Use GRT x .6 when NRT not available]

b) Multiple "holds" and spaces by cargo type value

	Equivalent		Cargo value	
Mixed Cargo	Holds			
POL & Liquid Cargo	Tank Spaces	x	0.50	= VP(s)
Troops	Troop Spaces	x	0.25	= VP(s)
Explosives	Holds	x	0.50	= VP(s)

[Artillery, coal, food, raw materials, military/civilian supplies and vehicles]

[Petroleum-Oil-Lubricant (diesel, gas, oil, grease) and other liquid cargos]

[Berthing for approximately 400 troops per troop space]

[Ammunition, bombs, explosives, flares, mines, rockets and torpedoes]

c) Cargo VPs + Troop Vps = Total Cargo VPs

Round to nearest ¼ VP

Loaded Ship Value: Empty Hull Value + Total Cargo Value

Special Cargo Value:

Increase the standard cargo values to reflect special regional and tactical conditions as required when setting-up scenarios:

a) **Urgent** Double standard cargo VPs

[High value cargo urgently needed to meet regional logistics requirements]

b) **Critical** Triple standard cargo VPs

[Military cargo critical to sustaining the tactical situation in succeeding days]

c) **AvGas** 1 VP per Hold

[Aviation gas needed for an airbase under siege to continue air operations]

AMCs:

a) **Empty Hull Value** GRT x .75/4000 tons = VP *Round to nearest ¼ VP*

b) Broadside Value

(not total armament)

4" - 5"	x	0.125	= VP(s)
5.5" +	x	0.25	= VP(s)
Torpedo Tubes	x	0.25	= VP(s)

c) **Raider Factor** 1 VP *Kriegsmarine* ½ VP *IJN*

d) **Total** Empty Hull Value + Broadside Value + Raider Factor *(if applicable)*

GQ III Hull Boxes

Rev 7

WW II

	3	4	5	6	7	8	9	Hull Boxes
BA - BC			25 - 28,000	29 - 33,000	34 - 40,000	41 - 48,000	50,000 +	tons
CA - CS		2 - 2,900	3 - 4,500	4,600 - 7,000	8 - 11,000	12 - 16,000	17,000 +	tons
CV - CVE		SC	8 - 12,000	13 - 19,000	20 - 29,000	30 - 44,000	45,000 +	tons
DD - TB	360 - 390	400 - 500	600 - 1,000	1,100 - 1,500	1,600 - 2,000	2,100 - 2,600	2,700 +	tons
Submarine	200 - 300	300 - 490	500 - 750	750 - 1,000	1,100 - 1,800	1,900 - 2,700	2,800 +	tons

reduce if built on merchant or WW I hull

Based on Standard Displacement

WW I

	3	4	5	6	7	8	9	Hull Boxes
BA - BD			12 - 15,000	16 - 21,000	22 - 30,000	31 - 39,000	40,000 +	tons
B*		9 - 10,000	11 - 13,000	14 - 18,000	19 - 24,000	25,000 +		tons
CA	3 - 6,000	7 - 10,000	11 - 13,000	14 - 16,000	17 - 20,000	21 - 25,000	26,000 +	tons
CL - CS		2 - 2,900	3 - 4,500	4,600 - 7,000	8 - 11,000	12 - 16,000	17,000 +	tons
DD - TB			600 - 1,000	1,100 - 1,600	1,700 - 2,100	2,100 - 2,600	2,700 +	tons
Submarine	200 - 300	300 - 490	500 - 750	750 - 1,000	1,100 - 1,800	1,900 - 2,500	2,600 +	tons

Based on Standard Displacement

Merchant Ships

	3	4	5	6	7	8	9	10	Hull Boxes
AC • AE • AF • AK • AP • AV	500 - 900	1 - 3,000	4 - 6,000	7 - 9,000	10 - 15,000	16 - 25,000	26,000 +	51,000 +	tons
AO • AG	1,000	2,000	3 - 4,000	5 - 6,000	7 - 9,000	10 - 15,000	16 - 25,000	26,000 +	

Based on Gross Registered Tonnage (GRT)

Airship Gas Cells

	Kite balloon	SS blimp	C Blimp	USN K class	USN M class				
Blimps									
Dirigibles						Shenandoah	Los Angeles	Akron • Macon	
Zeppelins					L 3	L 7	Type P	Type Q - V	Type X Hindenberg

Merchant Ship System

Rev J

= new or revised

Year	ACs	Kts	Engine	HULL			AC	CARGO			Coal	TROOPS			Approx. LOADED VPs	Defensive Armament			
				GRT	(GRT x .75)	VPs		NRT	Holds	VPs		Troops	Spaces	VPs		LA	DP	Med AA	Lt AA
	<i>Coastal</i>	AC	?	C	2,000	1,500	0.5	1,200	1	0.3	-	0	0.00	0.8					
	<i>small</i>	AC	?	C	4,000	3,000	0.8	2,400	2	0.6	-	0	0.00	1.4					
	<i>medium</i>	AC	10.5	C	5,000	3,750	1.0	3,000	3	0.8	-	0	0.00	1.8					
	AMERICAN																		
1929	Berwindglen	AC	10.0	O	4,411	3,308	1.0	2,750	3	0.7	-	0	0.00	1.7					
1929	Berwindvale	AC	10.0	O	4,411	3,308	1.0	2,750	3	0.7	-	0	0.00	1.7					
1918	Glen White	AC	11.0	C	5,438	4,079	1.0	3,349	3	0.8	-	0	0.00	1.8					
1918	Winding Gulf	AC	11.5	C	5,438	4,079	1.0	3,339	3	0.8	-	0	0.00	1.8					
	Liberty Collier **	AC	11.0	O	6,643	4,982	1.2	3,740	4	0.9	-	0	0.00	2.2					

Bold = Naval Auxiliary

** EC2-S-AW1 (24 built)

Round to nearest ¼ VP

Round to nearest ¼ VP

Round to nearest ¼ VP

Merchant Ship System

Rev O-4

= new or revised

3,000
4,000

AF
AK • AE

1,000
0.25

0.5
Mixed

400
0.25

Approx.
LOADED

Defensive Armament

Year	AKs	Kts	Engine	HULL	GRT	(GRT x .75)	VPs	CARGO	NRT	Holds	VPs	TROOPS	Troops	Spaces	VPs	Approx. LOADED	VPs	LA	DP	Med AA	Lt AA
AMERICAN																					
1939	Alchiba	AK	15.5	D		7,101	5,326	1.3	4,261	4	1.1	-	0	0.00	2.4						
1940	Almeria Lykes (C3)	AK	16.5	O		7,773	5,830	1.5	4,585	5	1.1	-	0	0.00	2.6			1 x 3"			4 x 20mm
1940	USS Almaack	AK	18.5	O	3	6,737	5,053	1.3	3,996	4	1.0	-	0	0.00	2.3			1 x 5"c	4 x 3"		12 x 20mm
1919	City of Baltimore	AK	17.0	O	4	8,378	6,284	1.6	5,147	5	1.3	-	0	0.00	2.9						
1942	USS Bellatrix (AK-20)	AK	16.0	D		6,440	4,830	1.2	3,864	4	1.0	54	0	0.03	2.2			1x5"	4x3"		8x50cal
1920	Lahaina	AK	11.0	O		5,645	4,234	1.1	3,517	4	0.9	-	0	0.00	1.9						
1921	Memphis City	AK	10.5	O		5,686	4,265	1.1	3,450	3	0.9	-	0	0.00	1.9						
1921	Nashaba	AK	11.0	O		6,054	4,541	1.1	3,776	4	0.9	-	0	0.00	2.1						
1921	USS Nitro	AE	13.0	O		7,440	5,580	1.4	4,405	4	2.2	-	0	0.00	3.6						
1918	Northern Sword	AK	9.5	O	3	2,648	1,986	0.5	1,513	2	0.4	-	0	0.00	0.9						
1920	Oklahoman	AK	11.0	O		5,508	4,131	1.0	3,411	3	0.9	-	0	0.00	1.9						
1919	Pan Kraft	AK	11.0	O		5,643	4,232	1.1	3,541	4	0.9	-	0	0.00	1.9						
1937	Perida	AK	16.0	D		6,579	4,934	1.2	4,099	4	1.0	-	0	0.00	2.3						
1918	Redstone	AK	11.5	C		3,110	2,333	0.6	1,875	2	0.5	-	0	0.00	1.1						
1941	San Elisa (C2-G)	AK	15.5	O		8,379	6,284	1.6	4,930	5	1.2	-	0	0.00	2.8			1 x 3"			4 x 20mm
1920	USS Sirius	AK	11.0	O		5,581	4,186	1.0	3,415	3	0.9	-	0	0.00	1.9						
1919	Tacoma Star	AK	13.0	C		7,924	5,943	1.5	4,962	5	1.2	-	0	0.00	2.7						
1942	Thomas Heywood	AK	11.0	O		7,176	5,382	1.3	4,380	4	1.1	-	0	0.00	2.4						
1920	William L Thompson	AK	11.0	O		6,203	4,652	1.2	4,658	5	1.2	-	0	0.00	2.3						
1919	West Cactus	AK	11.0	O		5,581	4,186	1.0	3,520	4	0.9	-	0	0.00	1.9						
1943	Wolverine	AK	11.5	O		4,990	3,743	0.9	3,051	3	0.8	-	0	0.00	1.7						
1942	C 1-A type	AK	14.5	O		5,072	3,804	1.0	2,876	3	0.7	-	0	0.00	1.7						
1942	C 1-A type	AK	14.0	D		5,028	3,771	0.9	2,820	3	0.7	-	0	0.00	1.6						
1941	C 1-B type	AK	14.0	O		6,829	5,122	1.3	4,800	5	1.2	-	0	0.00	2.5						
	C 1-M-AV1 type	AK	11.0	D		3,805	2,854	0.7	2,123	2	0.5	-	0	0.00	1.2						
1939	C-2 type	AK	15.5	O		6,085	4,564	1.1	3,573	4	0.9	-	0	0.00	2.0			1x5" + 4x3"			8x20mm
1939	C-2 type	AK	15.5	D		6,160	4,620	1.2	3,653	4	0.9	12	0	0.01	2.1			1x5" + 4x3"			8x20mm
	C-2-S-AJ5	AK	15.5	O		8,294	6,221	1.6	4,918	5	1.2	-	0	0.00	2.8			1x5" + 4x3"			
	C-2-S-E1	AK	16.0	O		6,165	4,624	1.2	3,519	4	0.9	-	0	0.00	2.0			1x5" + 4x3"			
	C-2-S1-A1	AK	16.5	O		8,300	6,225	1.6	4,800	5	1.2	-	0	0.00	2.8			1x5" + 4x3"			
	C-2-SU	AK	16.0	O		6,622	4,967	1.2	3,854	4	1.0	-	0	0.00	2.2			1x5" + 4x3"			
	C 3 type	AK	16.5	D		7,886	5,915	1.5	4,585	5	1.1	-	0	0.00	2.6						
1940	C 3 type	AK	16.5	O		7,773	5,830	1.5	4,585	5	1.1	-	0	0.00	2.6						
	C 3-A P&C	AK	16.5	O		9,256	6,942	1.7	5,157	5	1.3	-	0	0.00	3.0						
	C 3-E	AK	16.5	O		6,737	5,053	1.3	3,996	4	1.0	-	0	0.00	2.3						
	C 3-S-A4	AK	16.5	O		8,061	6,046	1.5	4,677	5	1.2	-	0	0.00	2.7						
	C 3-S-A5	AK	16.5	O		8,274	6,206	1.6	4,709	5	1.2	-	0	0.00	2.7						
	C 3-S-BH2	AK	16.5	O		7,972	5,979	1.5	4,624	5	1.2	-	0	0.00	2.7						
	C 3-Delta	AK	16.0	O		7,978	5,984	1.5	4,542	5	1.1	-	0	0.00	2.6						
1942	C 4-A4 type	AK	17.0	O		12,420	9,315	2.3	7,637	8	1.9	-	0	0.00	4.2						
1941	Liberty type	AK	11.5	O	1	7,176	5,382	1.3	4,380	4	1.1	-	0	0.00	2.4			1 x 4"			
1944	Victory (VC2-S-AP1)	AK	16.0	O	2	7,607	5,705	1.4	4,555	5	1.1	-	0	0.00	2.6			1x5" + 1x3"			8x20mm
BRITISH & COMMONWEALTH																					

Merchant Ship System

Rev 0-4

= new or revised

3,000
4,000

AF
AK • AE

1,000
0.25

0.5
Mixed

400
0.25

Approx.
LOADED

Defensive Armament

Year	AKs	Kts	Engine	HULL			CARGO			TROOPS			Approx. LOADED	Defensive Armament			
				GRT	(GRT x .75)	VPs	NRT	Holds	VPs	Troops	Spaces	VPs	VPs	LA	DP	Med AA	Lt AA
1934	Acrity	AK	10.5	D	403	302	0.1	200	0	0.1	0	0.00	0.1				
1922	Argos Hill	AK	12.0	O	7,178	5,384	1.3	4,413	4	1.1	0	0.00	2.4				
1935	Baron Cawdor	AK	11.5	C	3,638	2,729	0.7	2,132	2	0.5	0	0.00	1.2				
1936	Blackheath	AK	10.5	O	4,637	3,478	0.9	2,702	3	0.7	0	0.00	1.5				
1922	Blythmoor	AK	10.0	C	6,582	4,937	1.2	4,032	4	1.0	0	0.00	2.2				
1930	Briarwood	AK	10.0	C	4,125	3,094	0.8	2,465	2	0.6	0	0.00	1.4				
1937	Brisbane Star	AF	16.0	D	11,076	8,307	2.8	6,787	7	1.7	0	0.00	4.5				
1938	Clan Ferguson	AK	16.0	O	7,347	5,510	1.4	3,563	4	0.9	0	0.00	2.3				
1924	Cedarbank	AK	12.0	D	5,139	3,854	1.0	3,117	3	0.8	0	0.00	1.7				
1931	Conch	AK	11.0	D	8,376	6,282	1.6	4,953	5	1.2	0	0.00	2.8				
1920	Cornwall	AF	14.0	O	10,605	7,954	2.7	6,623	7	1.7	0	0.00	4.3				
1938	Coxwold	AK	10.0	D	1,124	843	0.2	629	1	0.2	0	0.00	0.4				
1929	Dallington Court	AK	10.0	O	6,889	5,167	1.3	4,329	4	1.1	0	0.00	2.4				
1937	Delius	AK	14.0	D	6,065	4,549	1.1	3,749	4	0.9	0	0.00	2.1				
1930	Deucalion	AK	16.0	D	7,740	5,805	1.5	4,674	5	1.2	0	0.00	2.6				
1923	Dorelian	AK	12.0	C	6,431	4,823	1.2	4,069	4	1.0	0	0.00	2.2				
1934	Dorset	AK	16.0	D	10,624	7,968	2.0	6,298	6	1.6	0	0.00	3.6				
1941	Eastern City	AK	10.0	D	5,185	3,889	1.0	3,028	3	0.8	0	0.00	1.7				
1941	Empire Hope	AF	16.0	D	12,688	9,516	3.2	7,540	8	1.9	0	0.00	5.1	1 x 4.7"	--	4 x 40mm	8x20+4MGs
1919	Empire Kudu	AK	11.0	O	6,622	4,967	1.2	4,082	4	1.0	0	0.00	2.3				
1941	Empire Spring	AK	10.0	D	6,946	5,210	1.3	4,147	4	1.0	0	0.00	2.3				
1942	Fort Fraser	AK	11.0	C	7,126	5,345	1.8	4,253	4	1.1	0	0.00	2.8				
1939	Glenorchy	AK	18.0	D	8,982	6,737	1.7	5,383	5	1.3	0	0.00	3.0				
1930	Harmattan	AK	9.0	C	4,558	3,419	0.9	2,709	3	0.7	0	0.00	1.5				
1943	High Park	AK	11.0	C	7,135	5,351	1.8	4,243	4	1.1	0	0.00	2.8				
1934	Imperial Star	AF	16.0	D	12,427	9,320	3.1	7,672	8	1.9	0	0.00	5.0				
1929	Knight of Malta	AK	15.5	C	1,553	1,165	0.3	656	1	0.2	0	0.07	0.5				
1906	Lochnagar	AK	14.0	C	1,619	1,214	0.3	688	1	0.2	0	0.00	0.5				
1935	Marwarri	AK	14.0	C	8,100	6,075	1.5	4,825	5	1.2	0	0.00	2.7				
1919	Masirah	AK	12.5	C	6,578	4,934	1.2	4,079	4	1.0	0	0.00	2.3				
1936	Melbourne Star	AF	16.0	D	11,076	8,307	2.8	6,788	7	1.7	0	0.00	4.5				
1918	Melmore Head	AK	13.0	C	5,273	3,955	1.3	3,287	3	0.8	0	0.00	2.1				
1920	Mersington Court	AK	10.5	O	5,141	3,856	1.0	3,217	3	0.8	0	0.00	1.8				
1925	Moveria	AK	11.5	D	4,867	3,650	1.2	2,873	3	0.7	0	0.00	1.9				
1924	North Cornwall	AK	10.0	C	4,304	3,228	0.8	2,660	3	0.7	0	0.00	1.5				
1942	Ocean Liberty	AK	11.0	C	7,174	5,381	1.8	4,278	4	1.1	0	0.00	2.9				
1931	Orari	AF	16.0	D	10,350	7,763	2.6	6,228	6	1.6	2 cargo + 4 refrig holds		4.1	1 x 4"	1 x 3"	1 x 40mm	2x20 + MGs
1933	Port Chalmers	AK	15.0	D	8,535	6,401	1.6	5,204	5	1.3	0	0.00	2.9				
1937	Ridley	AK	10.0	D	4,993	3,745	1.2	3,061	3	0.8	0	0.00	2.0				
1928	Riverton	AK	10.0	C	5,378	4,034	1.0	3,246	3	0.8	0	0.00	1.8				
1927	Romanby	AK	10.0	C	4,887	3,665	0.9	2,997	3	0.7	0	0.00	1.7				
1937	Rochester Castle	AF	16.5	D	7,795	5,846	1.9	4,736	5	1.2	0	0.00	3.1				
1924	Silverelm	AK	10.5	O	4,351	3,263	0.8	2,637	3	0.7	0	0.00	1.5				
	Standard Type A	AK	11.0	C	5,030	3,773	0.9	3,130	3	0.8	0	0.00	1.7				

Merchant Ship System

Rev O-4

= new or revised

3,000
4,000

AF
AK • AE

0.5
0.25

Ammunition
Mixed

400 0.25

Approx.
LOADED

Defensive Armament

Year	AKs	Kts	Engine		GRT	(GRT x .75)	VPs		NRT	Holds	VPs		Troops	Spaces	VPs		VPs		LA	DP	Med AA	Lt AA	
1940	Temple Arch	AK	10.5	C	3	5,138	3,854	1.0		3,039	3	0.8		-	0	0.00		1.7					
1908	Thesus	AK	14.0	C		6,527	4,895	1.2		4,152	4	1.0		-	0	0.00		2.3					
1937	Trevalgan	AK	10.0	D		5,299	3,974	1.3		3,120	3	0.8		-	0	0.00		2.1					
1940	Trevilley	AK	10.5	D	3	5,296	3,972	1.0		3,106	3	0.8		-	0	0.00		1.8					
1926	Tweed	AK	10.0	C		2,697	2,023	0.5		1,672	2	0.4		-	0	0.00		0.9					
1938	Waimarama	AF	16.5	D		12,843	9,632	3.2		6,672	7	1.7		-	0	0.00		4.9					
1925	Wanderer	AK	12.0	C		5,079	3,809	1.3		3,152	3	0.8		-	0	0.00		2.1					
1935	Wairangi	AF	17.0	D		12,436	9,327	3.1		6,532	7	1.6		-	0	0.00		4.7					
									FRENCH														
1932	Amienois	AK	10.0	C		3,713	2,785	0.7		1,976	2	0.5			0	0.00		1.2					
1919	BrestoIs	AK	9.5	C		3,094	2,321	0.6		1,843	2	0.5			0	0.00		1.0					
1932	Cap Blanc	AK	11.0	C		3,317	2,488	0.6		1,764	2	0.4			0	0.00		1.1					
1930	Chateau Pavie	AK	10.5	C		2,047	1,535	0.4		903	1	0.2			0	0.00		0.6					
1920	Saint Firmin	AK	9.5	C		4,356	3,267	0.8		2,661	3	0.7			0	0.00		1.5					
1914	Albert Le Borgne	AK	10.0	C		3,921	2,941	0.7		2,438	2	0.6			0	0.00		1.3					
1924	Enseigne Maurice Prechac	AK	10.0	C		4,578	3,434	0.9		2,549	3	0.6			0	0.00		1.5					
1936	Pierre LD	AK	13.0	D		5,795	4,346	1.1		3,333	3	0.8			0	0.00		1.9					
1917	Saint-Malo	AK	11.0	O		5,779	4,334	1.1		4,298	4	1.1			0	0.00		2.2					
1920	Saumur	AK	9.0	C		2,955	2,216	0.6		1,807	2	0.5			0	0.00		1.0					
1931	Sinfra	AK	12.5	D		6,246	4,685	1.2		3,646	4	0.9			0	0.00		2.1					
1929	St. Clair	AK	11.5	C		3,825	2,869	0.7		2,208	2	0.6			0	0.00		1.3					
									NORWEGIAN														
1929	Abraham Lincoln	AK	13.5	D	3	5,740	4,305	1.1		3,501	4	0.9		-	0	0.00		2.0					
1938	Askot	AK	11.0	O		1,323	992	0.2		715	1	0.2		-	0	0.00		0.4					
1920	Cate B.	AK	9.5	O		4,285	3,214	0.8		2,573	3	0.6		-	0	0.00		1.4					
1915	Eldrid	AK	9.0	O		1,712	1,284	0.3		998	1	0.2		-	0	0.00		0.6					
1930	Fjordheim	AK	11.0	C	3	4,115	3,086	0.8		2,497	2	0.6		-	0	0.00		1.4					
1922	Haalegg	AK	9.0	C		1,758	1,319	0.3		1,032	1	0.3		-	0	0.00		0.6					
1920	Helgoy	AK	11.0	D		5,614	4,211	1.1		3,455	3	0.9		-	0	0.00		1.9					
1937	Ornefjell	AK	11.5	C		1,334	1,001	0.3		740	1	0.2		-	0	0.00		0.4					
1925	Rio Branco	AK	9.5	D		3,210	2,408	0.6		1,858	2	0.5		-	0	0.00		1.1					
1905	Saphir	AK	9.0	O		4,306	3,230	0.8		2,788	3	0.7		-	0	0.00		1.5					
1924	Solstad	AK	9.0	C		1,408	1,056	0.3		785	1	0.2		-	0	0.00		0.5					
1931	South America	AK	10.5	D		6,246	4,685	1.2		3,646	4	0.9		-	0	0.00		2.1					
1926	Toledo	AK	11.0	D	3	4,598	3,449	0.9		2,727	3	0.7		-	0	0.00		1.5					
1921	Topdalsfjord	AK	11.0	O		4,271	3,203	0.8		2,574	3	0.6		-	0	0.00		1.4					
									SOVIET														
1903	Dekabrist	AK	12.0	D	3	7,363	5,522	1.4		5,154	5	1.3		-	0	0.00		2.7					
									OTHER ALLIED														
1920	Alchiba (Dutch)	AK	10.5	C		4,427	3,320	0.8		2,704	3	0.7		-	0	0.00		1.5					
1912	Agia Marina (Greek)	AK	12.0	C		4,151	3,113	0.8		2,476	2	0.6		-	0	0.00		1.4					
1910	Atland (Swd)	AK	11.0	O		5,203	3,902	1.0		2,639	3	0.7		-	0	0.00		1.6					
1915	Bernisse (Dutch)	AK	9.0	O	3	951	713	0.2		478	0	0.1		-	0	0.00		0.3					
1922	Breedijk (Dutch)	AK	12.0	O	3	6,861	5,146	1.3		4,229	4	1.1		-	0	0.00		2.3					

Merchant Ship System

Rev O-4

= new or revised

3,000
4,000

AF
AK • AE

0.5
0.25

Ammunition
Mixed

400 0.25

Approx.
LOADED

Defensive Armament

Year	AKs	Kts	Engine	HULL				CARGO				TROOPS			VPs	Defensive Armament			
				GRT	(GRT x .75)	VPs		NRT	Holds	VPs		Troops	Spaces	VPs		LA	DP	Med AA	Lt AA
1914	Boden (Swd)	AK	10.5	C	4,246	3,185	0.8	1,969	2	0.5	-	0	0.00	1.3					
1920	Evgenia Chandris (Greek)	AK	12.0	C	5,317	3,988	1.0	3,166	3	0.8	-	0	0.00	1.8					
1919	Chepo (Pan.)	AK	9.0	O	5,707	4,280	1.1	3,515	4	0.9	-	0	0.00	1.9					
1917	Cygnat (Pan)	AK	10.0	O	3,530	2,648	0.7	2,139	2	0.5	-	0	0.00	1.2					
1920	El Estero (Pan.)	AK	12.0	O	4,219	3,164	0.8	2,557	3	0.6	-	0	0.00	1.4					
1931	Gunvor Maersk (Dan.)	AK	10.0	C	1,984	1,488	0.4	1,178	1	0.3	-	0	0.00	0.7					
1917	Halcyon (Pan)	AK	10.0	O	3,531	2,648	0.7	2,140	2	0.5	-	0	0.00	1.2					
1922	Hjelmaren (Swd)	AK	10.5	D	2,467	1,850	0.5	1,186	1	0.3	-	0	0.00	0.8					
1908	Junco (Dutch)	AK	10.0	C	1,763	1,322	0.3	1,088	1	0.3	-	0	0.00	0.6					
1917	Keramiai (Greek)	AK	11.0	O	5,085	3,814	1.0	3,106	3	0.8	-	0	0.00	1.7					
1920	Korshamn (Swd)	AK	11.0	D	6,683	5,012	1.3	4,057	4	1.0	-	0	0.00	2.3					
1928	Leonidas (Greek)	AK	9.5	O	4,573	3,430	0.9	2,902	3	0.7	-	0	0.00	1.6					
1920	CF Liljevalch (Swd)	AK	11.0	C	5,492	4,119	1.0	2,928	3	0.7	-	0	0.00	1.8					
1918	Mount Kassion (Greek)	AK	11.0	O	7,914	5,936	1.5	4,973	5	1.2	-	0	0.00	2.7					
1912	Mount Kitheron (Greek)	AK	9.5	C	3,876	2,907	0.7	2,447	2	0.6	-	0	0.00	1.3					
1923	Oxelosund (Swd)	AK	10.0	D	5,613	4,210	1.1	2,824	3	0.7	-	0	0.00	1.8					
1920	Panaghis (Greek)	AK	10.0	O	5,187	3,890	1.0	3,199	3	0.8	-	0	0.00	1.8					
1914	Radmanso (Swd)	AK	10.5	C	4,280	3,210	0.8	2,596	3	0.6	-	0	0.00	1.5					
1929	Stad Haarlem (Dutch)	AK	10.0	C	4,518	3,389	0.8	2,738	3	0.7	-	0	0.00	1.5					
1921	Strassa (Swd)	AK	11.0	D	5,602	4,202	1.1	2,825	3	0.7	-	0	0.00	1.8					
1922	Tolken (Swd)	AK	10.0	O	4,471	3,353	0.8	2,722	3	0.7	-	0	0.00	1.5					
1913	Torne (Swd)	AK	9.5	C	3,792	2,844	0.7	1,963	2	0.5	-	0	0.00	1.2					
1920	Zeus (Greek)	AK	10.0	O	4,279	3,209	0.8	2,433	2	0.6	-	0	0.00	1.4					
GERMAN																			
1923	Amasis	AK	12.0	C	7,129	5,347	1.3	4,357	4	1.1	-	0	0.00	2.4					
1922	August Leonhardt	AK	10.0	C	2,593	1,945	0.5	1,526	2	0.4	-	0	0.00	0.9					
1923	Aachen	AK	13.0	C	6,388	4,791	1.2	3,923	4	1.0	-	0	0.00	2.2					
1928	Alster	AK	14.0	C	5,398	4,049	1.0	3,598	4	0.9	-	0	0.00	1.9					
1921	Altona	AK	12.0	C	8,514	6,386	1.6	5,328	5	1.3	-	0	0.00	2.9					
1937	Antares	AK	12.0	C	2,593	1,945	0.5	1,470	1	0.4	-	0	0.00	0.9					
1921	Barenfels	AK	12.0	C	7,569	5,677	1.4	4,679	5	1.2	-	0	0.00	2.6					
1924	Brockenheim	AK	12.0	O	4,902	3,677	0.9	2,987	3	0.7	-	0	0.00	1.7					
1911	Curityba	AK	12.0	C	4,969	3,727	0.9	3,045	3	0.8	-	0	0.00	1.7					
1928	Duisberg	AK	13.0	D	7,389	5,542	1.4	4,375	4	1.1	78	0	0.05	2.5					
1913	Emshorn	AK	8.0	C	4,301	3,226	0.8	2,718	3	0.7	-	0	0.00	1.5					
1921	Espana	AK	12.0	O	7,465	5,599	1.4	4,532	5	1.1	-	0	0.00	2.5					
1920	Friedenau	AK	10.0	O	5,219	3,914	1.0	3,169	3	0.8	-	0	0.00	1.8					
1922	Frielinghaus	AK	9.5	O	4,399	3,299	0.8	2,356	2	0.6	-	0	0.00	1.4					
1921	Hamm	AK	12.0	C	5,874	4,406	1.1	3,556	4	0.9	-	0	0.00	2.0					
1921	Hanau	AK	12.0	C	5,892	4,419	1.1	3,597	4	0.9	-	0	0.00	2.0					
1937	Hein Hoyer	AK	11.0	C	5,836	4,377	1.1	3,428	3	0.9	-	0	0.00	2.0					
1922	Ionia	AK	10.0	C	3,102	2,327	0.6	1,789	2	0.4	-	0	0.00	1.0					
1923	Itauri	AK	11.0	C	6,838	5,129	1.3	4,226	4	1.1	-	0	0.00	2.3					
1923	Kellerwald	AK	10.0	O	5,032	3,774	0.9	2,983	3	0.7	-	0	0.00	1.7					

Merchant Ship System

Rev O-4

= new or revised

3,000 AF 0.5 Ammunition
4,000 AK • AE 1,000 0.25 Mixed

Year	AKs	Kts	Engine	HULL			NRT	CARGO		Troops	TROOPS		Approx. LOADED VPs	Defensive Armament			
				GRT	(GRT x .75)	VPs		Holds	VPs		Spaces	VPs		LA	DP	Med AA	Lt AA
1939	Levante	AK	14.0	D	4,770	3,578	0.9	2,730	3	0.7	0	0.00	1.6				
1917	Lippe	AK	12.0	C	7,849	5,887	1.5	4,870	5	1.2	0	0.00	2.7				
1927	Main	AK	14.0	C	7,624	5,718	1.4	4,741	5	1.2	0	0.00	2.6				
1911	Martha Hendrik Fisser	AK	11.0	C	4,879	3,659	0.9	2,930	3	0.7	0	0.00	1.6				
1920	Mendoza	AK	10.0	C	5,193	3,895	1.0	3,168	3	0.8	0	0.00	1.8				
1911	Muansa	AK	12.0	O	5,472	4,104	1.0	3,387	3	0.8	0	0.00	1.9				
1939	Neidenfels	AK	16.0	D	7,838	5,879	1.5	4,844	5	1.2	0	0.00	2.7				
1925	Neuenfels	AK	12.0	D	8,096	6,072	1.5	4,996	5	1.2	0	0.00	2.8				
1928	Odin	AK	10.0	C	5,806	4,355	1.1	2,898	3	0.7	0	0.00	1.8				
1922	Planet	AK	12.5	C	5,821	4,366	1.1	3,554	4	0.9	0	0.00	2.0				
1928	Rauenfels	AK	13.0	D	8,460	6,345	1.6	5,270	5	1.3	0	0.00	2.9				
1914	Rio de Janeiro	AK	10.5	C	5,261	3,946	1.0	3,194	3	0.8	1	0.2	2.0				
1928	Roda	AK	13.0	D	6,780	5,085	1.3	4,057	4	1.0	0	0.00	2.3				
1913	Rosario	AK	12.5	C	6,079	4,559	1.1	3,731	4	0.9	0	0.00	2.1				
1931	San Marco	AK	13.0	D	3,113	2,335	0.6	1,739	2	0.4	0	0.00	1.0				
1921	Sao Paulo	AK	10.0	C	4,977	3,733	0.9	3,027	3	0.8	0	0.00	1.7				
1928	Seattle	AK	14.0	D	7,369	5,527	1.4	4,355	4	1.1	0	0.00	2.5				
1920	Tubingen	AK	10.0	O	5,453	4,090	1.0	3,287	3	0.8	0	0.00	1.8				
1918	Tucuman	AK	10.0	C	4,621	3,466	0.9	2,895	3	0.7	0	0.00	1.6				
1923	Tijuca	AK	11.0	O	5,918	4,439	1.1	3,628	4	0.9	0	0.00	2.0				
1914	Westsee	AK	11.5	O	5,911	4,433	1.1	3,680	4	0.9	0	0.00	2.0				
1921	Wigbert	AK	11.0	O	3,648	2,736	0.7	2,242	2	0.6	0	0.00	1.2				
1922	Wiegand	AK	10.0	C	5,869	4,402	1.1	3,599	4	0.9	0	0.00	2.0				
1921	Wolfram	AK	11.0	O	3,648	2,736	0.7	2,242	2	0.6	0	0.00	1.2				
ITALIAN																	
1939	Andrea Gritti	AK	16.0	D	6,338	4,754	1.2	3,707	4	0.9		0.00	2.1				
1908	Argentea	AK	12.0	O	3,302	2,477	0.6	1,925	2	0.5		0.00	1.1				
1930	Bainsizza	AK	11.0	C	7,933	5,950	1.5	4,965	5	1.2		0.00	2.7				
1940	Francesco Barbaro	AK	16.0	D	6,342	4,757	1.2	3,805	4	1.0	0	0.11	2.2				
1929	Bosforo	AK	10.5	C	3,567	2,675	0.7	2,087	2	0.5	0	0.00	1.2				
1924	Caffaro	AK	12.0	O	6,476	4,857	1.2	3,908	4	1.0	0	0.00	2.2				
1926	Maria	AK	11.5	D	6,339	4,754	1.2	4,007	4	1.0	0	0.07	2.3				
1929	Maully	AK	16.0	D	5,463	4,097	1.0	3,418	3	0.9		0.00	1.9				
1920	Monrosa	AK	10.0	O	6,703	5,027	1.3	4,216	4	1.1	0	0.00	2.3				
1918	Rina Corrado	AK	11.0	C	5,123	3,842	1.0	3,123	3	0.8	0	0.00	1.7				
1919	Sagitta	AK	10.0	C	5,180	3,885	1.0	3,125	3	0.8	0	0.00	1.8				
1926	Tergesteia	AK	16.0	D	5,890	4,418	1.1	3,708	4	0.9		0.00	2.0				
JAPANESE																	
1919	Akashi maru	AK	11.5	O	3,228	2,421	0.6	1,958	2	0.5	0	0.00	1.1				
1933	Amagisan maru	AK	16.0	D	7,620	5,715	1.4	4,711	5	1.2	0	0.00	2.6				
1936	Arima maru	AK	16.5	D	7,390	5,543	1.4	4,326	4	1.1	0	0.00	2.5				
1914	Asahi Maru	AK	16.0	C	9,326	6,995	1.7	5,645	6	1.4	0	0.00	3.2				
1941	Hakusan maru	AK	15.0	C	4,351	3,263	0.8	2,611	3	0.7	0	0.00	1.5				
1921	Hayo Maru	AK	12.0	O	5,446	4,085	1.0	3,311	3	0.8	0	0.00	1.8				

Merchant Ship System

Rev O-4

 = new or revised

3,000 AF
4,000 AK • AE

0.5 Ammunition
0.25 Mixed

400 **0.25**

Approx.
LOADED

Defensive Armament

Year	AKs	Kts	Engine	HULL				CARGO				TROOPS			Approx. LOADED	Defensive Armament			
				GRT	(GRT x .75)	VPs		NRT	Holds	VPs		Troops	Spaces	VPs		VPs	LA	DP	Med AA
1938	Kazuura M	AK	15.5	D	6,804	5,103	1.3	4,854	5	1.2	-	0	0.00	2.5					
1925	Kuretake Maru	AK	10.0	C	5,175	3,881	1.0	3,246	3	0.8		0	0.00	1.8					
1931	Kurama Maru	AK	14.0	D	6,791	5,093	1.3	4,066	4	1.0		0	0.00	2.3					
1920	Lima maru	AK	12.0	C	6,989	5,242	1.3	4,298	4	1.1	-	0	0.00	2.4					
1923	IJN Mamiya	AF	14.0	C	7,500	5,625	1.9	4,500	5	1.1	-	0	0.00	3.0	2 x 5.5"	2 x 3"			
1923	Miyadono maru	AK	11.0	O	5,196	3,897	1.0	3,198	3	0.8	-	0	0.00	1.8					
1940	Nana Maru	AK	14.5	D	6,764	5,073	1.3	3,915	4	1.0	-	0	0.00	2.2					
1920	Ryuyo Maru	AK	11.0	O	6,707	5,030	1.3	4,737	5	1.2	-	0	0.00	2.4					
1940	Sakura Maru	AK	17.0	D	7,149	5,362	1.3	3,920	4	1.0	-	0	0.00	2.3					
1919	San Francisco maru	AK	12.5	O	5,839	4,379	1.1	4,227	4	1.1	-	0	0.00	2.2					
1932	Shinkyo maru	AK	11.0	O	5,739	4,304	1.1	3,727	4	0.9	-	0	0.00	2.0					
1906	IJN Seito	AK	10.0	C	3,844	2,883	0.7	2,306	2	0.6	-	0	0.00	1.3		2 x 3"			
1940	Sumanoura Maru	AK	14.0	O	3,519	2,639	0.7	2,049	2	0.5	-	0	0.00	1.2					
1939	Tatukami Maru	AK	15.0	O	7,064	5,298	1.3	4,126	4	1.0	-	0	0.00	2.4					
1916	Tsuruga Maru	AK	14.0	O	6,988	5,241	1.3	4,284	4	1.1	-	0	0.00	2.4					
1919	Woosung maru	AK	11.5	O	3,090	2,318	0.6	1,884	2	0.5	-	0	0.00	1.1					
1919	Yuki maru	AK	12.0	C	5,704	4,278	1.1	3,507	4	0.9	-	0	0.00	1.9					

Bold = Naval Auxiliary

Round to nearest ¼ VP

Round to nearest ¼ VP

Round to nearest ¼ VP

1 Most oil fueled

2 some diesel

3 S Taylor data

4 GRT based on Tacoma Star ratio fo GRT:DWT • Heywood class in WW II

Merchant Ship System

Rev M-3

= new or revised

		= new or revised					4,000		AO		1,000	0.5		400	0.25	Approx.				
Year	AOs	Kts	Engine	HULL			AO	P O L			TROOPS			Approx. LOADED VPs	Defensive Armament					
				GRT	(GRT x .75)	VPs		NRT	Tanks	VPs	Troops	Spaces	VPs		VPs	LA	DP	Med AA	Lt AA	
									AMERICAN											
1928	Australia	AO	10.0	D		11,628	8,721	2.2		7,221	7	3.6	-	0	0.00	5.8				
1920	Bidwell	AO	11.0	O	8	7,366	5,525	1.4		4,504	5	2.3	-	0	0.00	3.6				
1941	Bulkoil	AO	14.0	O		8,071	6,053	1.5		6,307	6	3.2	-	0	0.00	4.7				
1917	George G. Henry	AO	10.0	O	4	6,936	5,202	1.3		4,650	5	2.3	-	0	0.00	3.6				
1918	Mindanao	AO	10.0	O		5,236	3,927	1.0		3,150	3	1.6	-	0	0.00	2.6				
1917	Pennsylvania	AO	10.0	O	3	6,390	4,793	1.2		3,945	4	2.0	-	0	0.00	3.2				
1937	Rhode Island	AO	13.0	D		8,562	6,422	1.6		5,070	5	2.5	-	0	0.00	4.1				
1920	Clement Smith	AO	11.0	O	8	7,366	5,525	1.4		4,504	5	2.3	-	0	0.00	3.6				
1920	Tide Penn	AO	10.0	O		7,198	5,399	1.3		4,382	4	2.2	-	0	0.00	3.5				
1930	Tide Water	AO	10.0	D		8,886	6,665	1.7		5,412	5	2.7	-	0	0.00	4.4				
	Ulysses aka San Blas	AO	10.0	D		11,287	8,465	2.1		6,916	7	3.5	-	0	0.00	5.6				
	(Alt. - Amer Merchant Marine)	AO	10.0	D		10,780	8,085	2.0		6,468	6	3.2	-	0	0.00	5.3				
	T1-M-A1	AO	10.0	D		1,134	851	0.2		680	1	0.3	-	0	0.00	0.6				
1940	T-2 type	AO	16.0	O		9,890	7,418	1.9		5,928	6	3.0	-	0	0.00	4.8				
1940	T-2-SE-A1 type	AO	14.5	O		10,195	7,646	1.9		6,150	6	3.1	-	0	0.00	5.0				
	T-2-SE-A2 type	AO	14.0	O		10,465	7,849	2.0		6,150	6	3.1	-	0	0.00	5.0				
	T-3-S-A1	AO	15.0	O		9,880	7,410	1.9		5,960	6	3.0	-	0	0.00	4.8				
	T-3-S2-A1	AO	18.0	O		11,335	8,501	2.1		6,574	7	3.3	-	0	0.00	5.4				
	Z-ET1-S-C3 (Liberty)	AO	11.0	O	2	7,219	5,414	1.4		4,409	4	2.2	-	0	0.00	3.6				
1939	USS Cimarron	AO	18.0	O		11,335	8,501	2.1		6,574	7	3.3	-	0	0.00	5.4				
1941	USS Guadalupe (AO-32)	AO	18.0	O		8,266	6,200	1.5		6,278	6	3.1	-	0	0.00	4.7		4 x 5"	4 x 40mm	
1942	USS Neches (AO-47)	AO	17.0	O		10,600	7,950	2.0		6,390	6	3.2	-	0	0.00	5.2		1x5"+ 4x3"	8 x 40mm	
1939	USS Neosho (AO-23)	AO	18.0	O		11,335	8,501	2.1		6,574	7	3.3	-	0	0.00	5.4		4 x 5"	4 x 20mm	
1922	USS Tippecanoe (AO-21)	AO	10.5	O		8,266	6,200	1.5		6,278	6	3.1	-	0	0.00	4.7		2 x 5"	2 x 3"	
									BRITISH & COMMONWEALTH											
1930	Athelknight	AO	11.0	D	3	8,940	6,705	1.7		5,224	5	2.6	-	0	0.00	4.3		1 x 4.7"		
1929	Athelsultan	AO	10.5	D		8,882	6,662	1.7		5,259	5	2.6	-	0	0.00	4.3				
1937	Boardale	AO	12.0	D		8,834	6,626	1.7		4,973	5	2.5	-	0	0.00	4.1				
1936	British Confidence	AO	12.0	D	3	8,494	6,371	1.6		4,993	5	2.5	-	0	0.00	4.1				
1939	British Fidelity	AO	11.5	D		8,465	6,349	1.6		4,906	5	2.5	-	0	0.00	4.0				
1921	El Oso	AO	11.0	O		7,267	5,450	1.4		4,267	4	2.1	-	0	0.00	3.5				
1941	Empire Emerald	AO	12.0	O	3	8,032	6,024	1.5		4,676	5	2.3	-	0	0.00	3.8				
1942	Kentucky	AO	16.0	O		9,308	6,981	1.7		5,395	5	2.7	-	0	0.00	4.4				
1938	Lucellum	AO	12.0	D	3	9,425	7,069	1.8		5,742	6	2.9	-	0	0.00	4.6				
1930	Luxor	AO	11.0	D	3	6,554	4,916	1.2		3,926	4	2.0	-	0	0.00	3.2				
	Oil Pioneer	AO	11.0	D		5,666	4,250	1.1		3,419	3	1.7	-	0	0.00	2.8				
1940	Ohio	AO	16.0	O		9,264	6,948	1.7		5,438	5	2.7	-	0	0.00	4.5	1 x 5"c	1 x 3"	1 x 40mm	
1917	Plumleaf	AO	12.0	O		5,916	4,437	1.0		2,467	2	1.2	-	0	0.00	2.2				
1937	Regent Panther	AO	11.5	D		9,566	7,175	1.8		5,799	6	2.9	-	0	0.00	4.7				
1935	Sam Amado	AO	12.0	D	3	7,316	5,487	1.4		4,392	4	2.2	-	0	0.00	3.6				
	San Demetrio	AO	12.0	D		8,073	6,055	1.5		4,815	5	2.4	-	0	0.00	3.9				
1915	San Isidoro (San Fabian class)	AO	10.0	O	6	13,000	9,750	2.4		7,800	8	3.9	-	0	0.00	6.3				
1918	Standard Type Z	AO	11.0	D		5,571	4,178	1.0		3,343	3	1.7	-	0	0.00	2.7				
1927	Trocas	AO	11.5	D		7,406	5,555	1.4		4,277	4	2.1	-	0	0.00	3.5				

Merchant Ship System

Rev M-3

= new or revised

Year	AOs	Kts	Engine	HULL			AO	P O L			TROOPS			Approx. LOADED VPs	Defensive Armament			
				GRT	(GRT x .75)	VPs		NRT	Tanks	VPs	Troops	Spaces	VPs		LA	DP	Med AA	Lt AA
1926	Winamac	AO	11.0	O	8,621	6,466	1.6	5,208	5	2.6	-	0	0.00	4.2				
FRENCH																		
1936	Roussillon	AO	12.5	D	9,967	7,475	1.9	5,906	6	3.0	-	0	0.00	4.8				
NORWEGIAN																		
1938	Ferncourt	AO	13.0	D	9,918	7,439	1.9	5,973	6	3.0	-	0	0.00	4.8				
1936	Hoegh Hood	AO	12.0	D	9,351	7,013	1.8	5,652	6	2.8	-	0	0.00	4.6				
1925	Ina Knudsen	AO	12.0	D	8,913	6,685	1.7	5,275	5	2.6	-	0	0.00	4.3		1 x 4"		
1939	Salamis	AO	13.0	D	8,286	6,215	1.6	4,901	5	2.5	-	0	0.00	4.0				
OTHER ALLIED																		
1939	Ceronia (Dutch)	AO	12.0	D	8,096	6,072	1.5	4,710	5	2.4	-	0	0.00	3.9				
1939	Cistula (Dutch)	AO	12.0	D	8,097	6,073	1.5	4,710	5	2.4	-	0	0.00	3.9				
1936	Elusa (Dutch)	AO	12.0	D	6,235	4,676	1.2	3,593	4	1.8	-	0	0.00	3.0				
1938	Ocana (Dutch)	AO	12.0	D	6,256	4,692	1.2	3,589	4	1.8	-	0	0.00	3.0				
1939	Tibia (Dutch)	AO	13.0	D	10,356	7,767	1.9	6,147	6	3.1	-	0	0.00	5.0				
GERMAN																		
1938	Dithmarschen	AO	21.0	O	10,821	8,116	2.0	6,493	6	3.2	-	0	0.00	5.3				
1921	Jan Wellem	AO	10.5	O	11,766	8,825	2.2	6,440	6	3.0	-	0	0.00	5.2				
1928	Kattegat	AO	12.0	D	6,031	4,523	1.1	3,390	3	1.7	-	0	0.00	2.8				
1929	Samland	AO	11.0	D	5,978	4,484	1.1	3,587	4	1.8	(1)	0	0.00	2.9				
1928	Skagerrak	AO	12.0	D	6,031	4,523	1.1	3,400	3	1.7	-	0	0.00	2.8				
1939	Stedingen	AO	12.0	D	8,036	6,027	1.5	4,822	5	2.4	1	0	0.00	3.9				
ITALIAN																		
1913	Annarella	AO	9.0	D	5,999	4,499	1.1	3,389	3	1.7	-	0	0.00	2.8				
1927	Ardor	AO	11.0	D	8,960	6,720	1.7	5,079	5	2.5	-	0	0.00	4.2				
1921	Brennero- RMI	AO	9.5	O	7,156	5,367	1.3	4,294	4	2.1	-	0	0.00	3.5	4 x 4.7/45		2 x 3"	
1904	Bronte - RMI	AO	11.5		4,769	3,577	0.9	2,861	3	1.4	-	0	0.00	2.3	2 3"		2 x 3"	
1908	Conte di Misurata	AO	8.5	O	5,014	3,761	0.9	3,137	3	1.6	-	0	0.00	2.5				
	Darrisio - RMI	AO			7,728	5,796	1.4	4,637	5	2.3	-	0	0.00	3.8				
1893	Lina Campanella	AO	9.0	O	3,356	2,517	0.6	1,952	2	1.0	-	0	0.00	1.6				
1902	Luciana	AO	8.0	O	8,106	6,080	1.5	5,090	5	2.5	-	0	0.00	4.1				
1914	Marangona	AO	10.0	O	5,257	3,943	1.0	3,068	3	1.5	-	0	0.00	2.5				
1894	Maya	AO	9.5	O	3,867	2,900	0.7	2,198	2	1.1	1	0	0.00	1.8				
1940	Minatitland	AO	12.0	D	7,599	5,699	1.4	4,407	4	2.2	-	0	0.00	3.6				
1916	Nettuno - RMI	AO	14.0	O	7,150	5,363	1.3	4,290	4	2.1	-	0	0.00	3.5	3 x 4.7"		2 x 3"	
1939	Iridio Mantovani	AO	13.0	D	10,539	7,904	2.0	6,326	6	3.2	-	0	0.00	5.1				
1912	Poseidone	AO	10.0	O	6,613	4,960	1.2	4,183	4	2.1	-	0	0.00	3.3				
1941	Sterope RMI	AO	14.0	D	10,495	7,871	2.0	6,297	6	3.1	-	0	0.00	5.1	3 x 4.7"			2 MG
1892	Torcello	AO	9.0	O	3,336	2,502	0.6	2,012	2	1.0	1	0	0.00	1.6				
1918	Utilitas	AO	11.0	O	5,342	4,007	1.0	3,026	3	1.5	-	0	0.00	2.5				
1922	Urano - RMI	AO	11.0		7,726	5,795	1.4	4,636	5	2.3	-	0	0.00	3.8	2 x 4.7"		2 x 3"	2 MG
JAPANESE																		
1939	Akebono maru	AO	20.0	D	10,182	7,637	1.9	6,076	6	3.0	-	0	0.00	4.9				
1936	Arima maru	AK	19.0	D	7,390	5,543	1.4	4,326	4	2.2	-	0	0.00	3.5				
1929	Eiyo maru	AO	11.0	O	8,674	6,506	1.6	5,102	5	2.6	-	0	0.00	4.2				
1931	Fujisan maru	AO	18.0	D	9,524	7,143	1.8	5,440	5	2.7	-	0	0.00	4.5		2 x 4"		2 x 25mm

Merchant Ship System

Rev M-3

= new or revised

Year	AOs	Kts	Engine		HULL			AO	P O L			TROOPS			Approx. LOADED VPs	Defensive Armament			
					GRT	(GRT x .75)	VPs		NRT	Tanks	VPs	Troops	Spaces	VPs		LA	DP	Med AA	Lt AA
1937	Genyo maru	AO	19.7	D	1	10,018	7,514	1.9		5,900	6	3.0	-	0	0.00	4.8			
1938	Kuroshiro maru	AO	20.7	O	1	10,384	7,788	1.9		6,059	6	3.0	-	0	0.00	5.0			
1933	Kyokuto maru	AO	18.9	D	1	10,051	7,538	1.9		5,821	6	2.9	-	0	0.00	4.8			
1936	Nippon maru	AO	19.2	D	1	9,974	7,481	1.9		5,849	6	2.9	-	0	0.00	4.8			
1936	Otowan maru	AO	16.5	D	1	9,205	6,904	1.7		5,300	5	2.7	-	0	0.00	4.4			
1928	San Diego maru	AO	11.0	D		7,269	5,452	1.4		5,000	5	2.5	-	0	0.00	3.9			
1940	Shinkoku maru	AO	19.8	D	1	10,020	7,515	1.9		6,012	6	3.0	-	0	0.00	4.9			
1920	IJN Shiretoko	AO	14.0	O	7	7,500	5,625	1.4		4,500	5	2.3	-	0	0.00	3.7			
1931	Teiyo maru	AO	17.0	D	1	9,850	7,388	1.8		5,722	6	2.9	-	0	0.00	4.7			
1938	Toei Maru	AO	17.0	D		10,023	7,517	1.9		5,820	6	2.9	-	0	0.00	4.8			
1936	Toho maru	AO	17.0	D	1	9,987	7,490	1.9		5,885	6	2.9	-	0	0.00	4.8			

Bold = Naval Auxiliary

Round to nearest ¼ VP

Round to nearest ¼ VP

Round to nearest ¼ VP

* One hold for support cargo and workshops

1 The Visual Guide of Japanese Merchant Marine & Watts

2 64,824 Bbs

3 S Taylor data

4 Became USS Victoria AO 46 in WW II

5 Converted from AK in 1943

6 Sold to france in WW I & renamed *Dordogne*

7 Shiratoko NRT is placeholder approximation based on JANAC estimate

8 USSB Design 1059, Steamboat Bill Winter 1996

Merchant Ship System

Rev L-4

= new or revised

3,000
4,000

APA
AP

1,000 0.25

Mixed

400 0.25

Approx.
LOADED

Defensive Armament

Year	APs	Kts	Engine	GRT		(GRT x .75)	VPs	AMERICAN													
								NRT	Holds	VPs	Troops	Spaces	VPs	VPs	LA	DP	Med AA	Lt AA			
1923	City of Chattanooga	AP	13.5	O	5,867	4,400	1.1	2	4,343	2	0.50	700	2	0.4	2.0						
1914	Leviathan	AP	26.0	O	54,282	40,712	10.2			1	0.25	14,000	35	8.8	19.2		Scrapped in 1938				
1932	Monterey (USAT)	AP	22.8	O	18,017	13,513	3.4			1	0.25	3,500	9	2.2	5.8						
1932	Mariposa (USAT)	AP	21.0	O	17,226	12,920	3.2			1	0.25	3,500	9	2.2	5.7						
1930	President Hoover	AP	20.0	O	21,936	16,452	4.1			1	0.25	2,000	5	1.3	5.6						
1928	USS Barnett (AP-11)	APA	14.5	D	7,857	5,893	2.0			3,380	1	0.25	1,400	4	0.9		3.1	1 x 5"	4 x 3"		8 HMG
1920	USS J Franklin Bell (AP-34)	APA	17.0	O	14,127	10,595	3.5				2	0.50	1,400	4	0.9		4.9				
1920	USS Chaumont (AP-5)	AP	15.0	O	7,555	5,666	1.4			3,908	1	0.25	1,316	3	0.8		2.5				
1940	USS Crescent City (AP-40)	APA	16.5	O	7,922	5,942	2.0				1	0.25	1,200	3	0.8		3.0				
1918	USS Geo. F Elliott (AP-13)	APA	16.8	O	8,378	6,284	2.1			5,147	2	0.50	1,150	3	0.7		3.3		1x5"+4x3"		8 HMG
1918	USS Fuller (AP-14)	APA	16.8	O	8,378	6,284	2.1			5,147	2	0.50	1,150	3	0.7		3.3				
1907	USS U. S. Grant (AP-29)	AP	15.0	O	9,410	7,058	1.8				1	0.25	1,163	3	0.7		2.7		7 x 3"		2 HMG
1916	USS Henderson (AP-1)	AP	12.0	O	7,493	5,620	1.4			3,992	1	0.25	1,695	4	1.1		2.7				
1921	USS Harris (AP-8)	APA	17.2	O	14,119	10,589	3.5				2	0.50	1,400	4	0.9		4.9				
1919	USS Heywood (AP-12)	APA	16.8	O	8,378	6,284	2.1			5,147	2	0.50	1,150	3	0.7		3.3	'44	4 x 3"	8 x 40mm	8x 20mm
1921	USS Hunter Liggett (AP-2)	APA	16.5	O	14,119	10,589	3.5				2	0.50	1,400	4	0.9		4.9				
1928	USS McCawley (AP-10)	APA	14.5	D	7,858	5,894	2.0	3,380	1	0.25	1,400	4	0.9	3.1	1 x 5"	4 x 3"		4 HMG			
1939	USS West Point (AP-23)	AP	17.5	O	26,454	19,841	5.0	1,100	1	0.25	8,175	20	5.1	10.3							
1920	USS Zeilin (AP-9)	APA	18.0	O	14,123	10,592	3.5		2	0.50	1,400	4	0.9	4.9							
BRITISH & COMMONWEALTH																					
1914	Aquitania	AP	23.0	O	44,786	33,590	8.4		19,297	1	0.25	7,725	19	4.8	13.5						
1936	Batory (Polish)	AP	18.0	D	14,287	10,715	2.7		8,167	2	0.50	2,800	7	1.8	4.9						
1939	Chrobry (Polish)	AP	16.0	D	11,442	8,582	2.1		7,106	1	0.25	1,000	3	0.6	3.0						
1929	Duchess of York	AP	18.0	O	20,021	15,016	3.8		11,758	2	0.50	4,000	10	2.5	6.8						
1920	Empress of Australia	AP	16.0	O	21,833	16,375	4.1		12,177	2	0.50	5,250	13	3.3	7.9						
1930	Empress of Britian	AP	26.5	O	42,348	31,761	7.9		22,545	1	0.25	2,000	5	1.3	9.4						
1932	Georgic	AP	15.0	D	27,759	20,819	5.2		16,716	1	0.25	3,100	8	1.9	7.4						
1922	Lancastria	AP	16.5	O	16,248	12,186	3.0		9,509	1	0.25	1,900	5	1.2	4.5						
1931	Monarch of Bermuda	AP	20.0	O	22,424	16,818	4.2		12,876	2	0.50	5,500	14	3.4	8.1						
1925	Oronsay	AP	18.0	O	20,001	15,001	3.8		11,278	1	0.25	4,400	11	2.8	6.8						
1938	Queen Elizabeth	AP	29.5	O	83,673	62,755	15.7			2	0.50	15,000	38	9.4	25.6						
1936	Queen Mary	AP	28.5	O	81,235	60,926	15.2			2	0.50	15,000	38	9.4	25.1						
1924	Orama	AP	18.0	O	19,840	14,880	3.7		11,754	3	0.75	935	2	0.6	5.1						
1934	Orion	AP	21.0	O	23,371	17,528	4.4		14,032	1	0.25	5,000	13	3.1	7.8						
1931	Reina del Pacifico	AP	19.0	D	17,702	13,277	3.3		10,720	1	0.25	2,400	6	1.5	5.1						
1936	Royal Ulsterman	AP	17.0	D	3,244	2,433	0.6		1,435	0	0.00	1,400	4	0.9	1.5						
1929	Ulster Monarch	AP	16.5	D	3,851	2,888	0.7		1,825		0.00		0	0.0	0.7						
1937	Ulster Prince	AP	18.0	D	4,302	3,227	0.8		1,825	0	0.00	1,400	4	0.9	1.7						
1930	Winchester Castle	AP	20.0	D	20,012	15,009	5.0		12,189	8	2.00	617	2	0.4	7.4						
1929	Llangibby Castle	APA	14.5	D	11,951	8,963	3.0			1	0.25	1,600	4	1.0	4.2		'40	2x 12pdr	4 x 2pdr	8 HMG	
1939	Glengyle LSI (L)	APA	18.0	D	9,800	7,350	2.5			1	0.25	697	2	0.4	3.1		'40	3x 12pdr	4 x 2pdr	8 x 20mm	
1938	Glenearn LSI (L)	APA	18.0	D	9,880	7,410	2.5			1	0.25	1,087	3	0.7	3.4		'41	6x 4"	4 x 2pdr	8 x 20mm	
1938	Glenroy LSI (L)	APA	18.0	D	9,880	7,410	2.5			1	0.25	1,087	3	0.7	3.4		'42	6x 4"	8 x 2pdr	12 x 20mm	

Rev L-4

3,000	APA
4,000	AP

Bold = Naval Auxiliary

1 Reefer and also fitted for carrying oil.
2 Wrecked in December 1937. Not USA

Round to nearest $\frac{1}{4}$ VP Round to

1 Silverstone, *The Navy of World War II*

¹ *Mussolini's Navy* by Maurizio Brescia

Rev D-2

= new or revised

Bold = Naval Auxiliary

Round to nearest $\frac{1}{4}$ VP

Round to nearest $\frac{1}{4}$ VP

 = submerged

Kormoran has 2 x TT mount + 1 submerged TT

1 Sonar 2/43 • AK 12/43+

2 Sonar 8/43 • AK 10/43+

Bitter Victory by Wesley Olsen

German Warships of World War II by J. C. Taylor

British and Dominion Warships of World War II by Lenton & Colledge

Warships of the Imperial Japanese Navy by Jentschura, Jung & Mickel

The Imperial Japanese Navy by Watts & Gordon

Mussolini's Navy by Maurizio Brescia

4" **SS Alchiba** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Cargo		Cargo				C + 3/4 VP
10	8	6	5	2	one ER		C

-- **MS Elusa** **AO**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
POL	POL		POL	POL			C + 1 1/4 VPs
12	10	8	5	4	2	one ER	D

-- **SS Leonidas** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
Cargo	Cargo		Cargo				C + 3/4 VP
9	7	5	4	2	one ER		

-- **SS Panaghis** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
Cargo	Cargo		Cargo				C + 1 VP
10	8	6	5	2	one ER		

4" 3" **SS Thomas Heywood** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/2 (1)
Cargo	Cargo		Cargo	Cargo			C + 1 1/4 VPs
11	9	7	5	3	1	one ER	

3" 3" **MS Llangibby Castle** **APA**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/2 (2 1/2)
Troops	Troops		Cargo	Troops	Troops		C + 3 VPs
14	13	11	9	6	4	2	one ER

4" **SS Argos Hill** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Cargo		Cargo	Cargo			C + 1 1/4 VPs
12	10	8	5	4	2	one ER	

3" **MS Ferncourt** **AO**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
POL	POL		POL	POL	POL		C + 1 1/2 VPs
13	12	10	8	7	6	4	2

3" **SS Memphis City** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Cargo		Cargo				C + 1 1/4 VPs
10	8	6	5	2	one ER		

3.5" **SS Saint-Malo** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Cargo		Cargo	Cargo			C + 1 VP
11	9	7	5	2	one ER		

4" 3" **SS Tide Penn** **AO**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/2 (1)
POL	POL		POL	POL			C + 1 1/2 VPs
10	9	8	7	5	3	2	one ER

5" 3" **USS Barnett (AP-11)** **APA**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1 (1)
Troops	Troops		Troops	Cargo			C + 2 VPs
14	12	9	6	4	2	one ER	D

-- **MS Athelsultan** **AO**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
POL	POL		POL	POL			C + 1 1/4 VPs
10	9	8	7	5	3	2	one ER

-- **SS Glen White** **AC**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
Coal	Coal		Coal				C + 1 VP
11	9	7	5	2	one ER		C

4" **SS Mount Kassion** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Cargo		Cargo	Cargo			C + 1 1/2 VPs
11	9	7	5	3	1	one ER	

-- **MS South America** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
Cargo	Cargo		Cargo	Cargo			C + 1 1/4 VPs
11	9	7	5	2	one ER		D

-- **SS Tolken** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
Cargo	Cargo		Cargo				C + 3/4 VP
10	8	6	5	2	one ER		

5" 3" **USS George F Elliott (APA-13)** **APA**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1 (3)
Troops	Troops		Troops	Cargo			C + 2 VPs
16	14	10	7	5	2	one ER	

4" 3" **MS Australia** **AO**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
POL	POL		POL	POL	POL		C + 2 1/4 VPs
10	9	8	7	6	5	3	2

4" 3" **SS High Park** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/2 (1)
Cargo	Cargo		Cargo	Cargo			C + 1 1/4 VPs
11	9	7	5	3	1	one ER	C

4" **SS Ocean Liberty** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Cargo		Cargo	Cargo			C + 1 1/4 VPs
11	9	7	5	3	1	one ER	C

-- **SS Stad Haarlem** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
Cargo	Cargo		Cargo				C + 3/4 VP
10	8	6	5	2	one ER		C

4" **SS Winamac** **AO**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
POL	POL		POL	POL			C + 1 1/2 VPs
11	10	9	7	5	3	2	one ER

5" 3" **USS McCawley (AP-10)** **APA**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1 (1)
Troops	Troops		Troops	Cargo			C + 2 VPs
14	12	9	6	4	2	one ER	D

Cargo spaces: Cargo and Troops = 1/4 VP • AvGas, POL and Ammo = 1/2 VP each

Date: 19 : Hrs

ALLIED CONVOYS

GQ

Weather: Force winds From

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

4.1" **3.5"** **SS Amasis** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 1 1/4 VPs
12	10	8	5	4	2	one ER	C

-- **SS Argentea** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 1/2 VP
12	9	6	2	one ER			

3.5" **MS Mauly** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 1 VP
16	13	10	7	3	one ER		D

-- **SS Asahi Maru** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
							C + 1 3/4 VPs
16	14	10	7	5	2	one ER	C

4.7" **SS Ryuyo Maru** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 1 1/4 VPs
11	9	7	5	3	1	one ER	

-- **SS Tatukami Maru** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
							C + 1 1/4 VPs
15	13	10	7	5	2	one ER	

3.5" **SS August Leonhardt** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 1/2 VP
10	8	5	2	one ER			C

3.5" **SS Bainsizza** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 1 1/2 VPs
11	9	7	5	3	1	one ER	C

3.5" **SS Maya** **AO**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 3/4 VP
10	8	6	5	2	one ER		

3.9" **SS Kuretake Maru** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 1 VP
10	8	6	5	2	one ER		C

-- **MS Sakura Maru** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
							C + 1 1/4 VPs
17	14	11	8	5	2	one ER	D

4.7" **MS Toei Maru** **AO**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 2 VPs
17	15	14	11	9	8	5	3

-- **SS Emshorn** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
							C + 1 1/4 VPs
8	6	5	4	2	one ER		C

-- **SS Caffaro** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
							C + 1 1/4 VPs
12	10	7	5	2	one ER		

3.9" **MS Tergestea** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 1 VP
16	13	10	7	3	one ER		D

4.7" **SS Kyokusei Maru** **AP**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 1 VP
12	10	7	5	2	one ER		

4.7" **MS San Diego Maru** **AO**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 1 1/2 VPs
11	10	9	7	5	3	2	one ER

3.9" **SS Tsuruga Maru** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 1 1/4 VPs
14	12	9	6	4	2	one ER	

-- **MS Andrea Gritti** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
							C + 1 1/4 VPs
16	13	10	7	3	one ER		D

4.7" **D 1 MS Citta di Napoli** **AP**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 1 VP
19	15	11	9	4	one ER		D

3.5" **SS Torcello** **AO**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 1/2 VP
9	7	5	4	2	one ER		

3.9" **MS Nana Maru** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
							C + 1 1/4 VPs
14	12	9	6	4	2	one ER	D

-- **SS Sumanoura Maru** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
							C + 3/4 VP
14	11	8	6	3	one ER		

-- **MS Yamagiri Maru** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
							C + 1 1/4 VPs
14	11	8	6	3	one ER		D

Cargo spaces: Cargo and Troops = 1/4 VP • AvGas, POL and Ammo = 1/2 VP each

Date: 19 : Hrs

AXIS CONVOYS

GQ

Weather: Force winds From

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

3.5" ss **Aachen** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
Cargo	Cargo		Cargo	Cargo			C + 1 1/2 VPs
13	10	8	6	3	one ER		C

3.5" ss **Altona** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
Cargo	Cargo		Cargo	Cargo			C + 1 1/2 VPs
12	10	8	5	4	2	one ER	C

-- ss **Bockenheim** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
Cargo	Cargo		Cargo				C + 1 VP
12	10	7	5	2	one ER		

3" ss **Blythmoor** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
Cargo	Cargo		Cargo	Cargo			C + 1 1/2 VPs
10	9	7	5	3	1	one ER	C

-- ss **Boden** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
Cargo			Cargo				C + 3/4 VP
10	8	6	5	2	one ER		C

-- ss **Cate B.** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
Cargo	Cargo		Cargo				C + 3/4 VP
9	7	5	4	2	one ER		

-- ss **Eldrid** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
Cargo							C + 1/4 VP
9	7	5	2	one ER			

-- ss **Frielinghas** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	- (1/4)
Cargo			Cargo				C + 3/4 VP
10	8	6	5	2	one ER		

-- ss **Haalegg** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
Cargo							C + 1/4 VP
9	7	5	2	one ER			C

4.1" ss **Hein Hoyer** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Cargo		Cargo				C + 1 VP
11	9	7	5	3	1	one ER	C

4.1" ss **Lippe** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Cargo	Cargo	Cargo	Cargo			C + 1 1/2 VPs
12	10	8	5	4	2	one ER	C

3.5" ss **Martha Hendrik Fisser** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
Cargo	Cargo		Cargo				C + 1 VP
11	9	7	5	2	one ER		C

-- ss **Mersington Court** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
Cargo	Cargo		Cargo				C + 1 VP
10	8	6	5	2	one ER		

3.5" MS **Neuenfels** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
Cargo	Cargo		Cargo	Cargo	Cargo		C + 1 1/2 VPs
12	10	8	5	4	2	one ER	D

-- ss **North Cornwall** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
Cargo	Cargo		Cargo				C + 3/4 VP
10	8	6	5	2	one ER		C

4.1" ss **Odin** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Cargo		Cargo				C + 1 VP
10	8	6	5	2	one ER		C

-- MS **Oxelosund** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
Cargo	Cargo		Cargo				C + 1 VP
10	8	6	5	2	one ER		D

-- ss **Planet** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
Cargo	Cargo		Cargo	Cargo			C + 1 VP
12	10	7	5	2	one ER		C

3" ss **Riverton** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Cargo		Cargo				C + 1 VP
10	8	6	5	2	one ER		C

3" ss **Romanby** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Cargo		Cargo				C + 1 VP
10	8	6	5	2	one ER		C

-- ss **Saphir** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
Cargo	Cargo		Cargo				C + 3/4 VP
9	7	5	4	2	one ER		

-- MS **Strassa** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
Cargo	Cargo		Cargo				C + 1 VP
11	9	7	5	2	one ER		D

-- ss **Torne** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
Cargo			Cargo				C + 3/4 VP
9	7	5	4	2	one ER		C

-- ss **Jan Wellem** **AO**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
POL	POL	Cargo	POL	POL	POL		C + 2 1/4 VPs
11	10	9	7	6	5	3	2

Cargo spaces: Cargo and Troops = 1/4 VP • AvGas, POL and Ammo = 1/2 VP each

Date: 19

: Hrs

NARVIK HARBOR

GQ

Weather:

Force winds From

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

4" HMS Auckland DE

Bridge DCT -- Bulkhead SL Rudder AA $2\frac{1}{2}$ (3½)
2 VPs

2 2 2 2 2 DC Radar
0000 R F C

19 16 12 9 6 3 Sonar -

ss Cap Blanc AK

Bridge WT -- Bulkhead SL Rudder AA -- (¼)
C + ½ VP

Cargo Cargo

11 8 6 2 one ER C

4" MS Delius AK

Bridge WT -- Bulkhead SL Rudder AA ¼ (½)
C + 1 VP

Cargo Cargo Cargo Cargo

14 11 8 6 3 one ER D

4" ss Thesus AK

Bridge WT -- Bulkhead SL Rudder AA ¼ (½)
C + 1¼ VPs

Cargo Cargo Cargo Cargo

14 11 8 6 3 one ER

3.5" ss El Kantara AP

Bridge WT -- Bulkhead SL Rudder AA ¼ (½)
C + 1 VP

Troops Cargo Troops

19 15 11 9 4 one ER

4" ss Orama AP

Bridge WT -- Bulkhead SL Rudder AA ¼ (½)
C + 3¼ VPs

Troops Troops Cargo Cargo Troops

18 16 14 12 10 8 5 3 one ER

4" HMS Bittern DE

Bridge DCT -- Bulkhead SL Rudder AA 2 (3)
2 VPs

2 2 2 2 DC Radar
0000 R F C

18 15 12 8 5 2 Sonar -

4" MS Cedarbank AK

Bridge WT -- Bulkhead SL Rudder AA ¼ (½)
C + 1 VP

Cargo Cargo Cargo

12 10 7 5 2 one ER D

ss Harmattan AK

Bridge WT -- Bulkhead SL Rudder AA -- (¼)
C + 1 VP

Cargo Cargo Cargo

9 7 5 4 2 one ER C

4" 3" MS Batory AP

Bridge WT -- Bulkhead SL Rudder AA ½ (½)
C + 2¼ VPs

Troops Troops Cargo Cargo Troops Troops

18 16 14 12 8 5 3 one ER D

4" ss Empress of Australia AP

Bridge WT -- Bulkhead SL Rudder AA -- (¼)
C + 4 VPs

Troops Troops Cargo Cargo Troops Troops Troops

16 14 13 10 9 7 5 2 one ER

MS Royal Ulsterman AP

Bridge WT -- Bulkhead SL Rudder AA -- (¼)
C + ½ VP

Troops Troops Troops

17 13 9 3 one ER D

3.9" ss Amienois AK

Bridge WT -- Bulkhead SL Rudder AA ¼ (½)
C + ¾ VP

Cargo Cargo

10 8 6 5 2 one ER C

4" MS Conch AK

Bridge WT -- Bulkhead SL Rudder AA ¼ (½)
C + 1½ VP

Cargo Cargo Cargo Cargo Cargo

11 9 7 5 3 1 one ER D

ss St. Clair AK

Bridge WT -- Bulkhead SL Rudder AA -- (¼)
C + ¾ VP

Cargo Cargo

11 9 7 5 2 one ER C

4" 3" MS Chrobry AP

Bridge WT -- Bulkhead SL Rudder AA ¾ (¾)
C + 2 VPs

Troops Troops Cargo Troops

16 14 13 10 7 5 2 one ER D

ss Flandre AP

Bridge WT -- Bulkhead SL Rudder AA -- (¼)
C + 1½ VPs

Troops Cargo Troops Troops

17 14 11 8 5 2 one ER

MS Ulster Prince AP

Bridge WT -- Bulkhead SL Rudder AA -- (-)
C + ¾ VP

Troops Troops Troops

18 14 11 8 4 one ER D

4" ss Blackheath AK

Bridge WT -- Bulkhead SL Rudder AA ¼ (½)
C + 1 VP

Cargo Cargo Cargo

10 8 6 5 2 one ER

4" ss Dallington Court AK

Bridge WT -- Bulkhead SL Rudder AA ¼ (½)
C + 1¼ VPs

Cargo Cargo Cargo Cargo

10 9 7 5 3 1 one ER

3.5" ss Saint Firmin AK

Bridge WT -- Bulkhead SL Rudder AA ¼ (½)
C + ¾ VP

Cargo Cargo Cargo

9 7 5 4 2 one ER C

ss Colombie AP

Bridge WT -- Bulkhead SL Rudder AA -- (¼)
C + 2½ VPs

Troops Troops Cargo Troops Troops Troops

17 15 14 11 8 5 3 one ER

4" ss Monarch of Bermuda AP

Bridge WT -- Bulkhead SL Rudder AA ¼ (½)
C + 4½ VPs

Troops Troops Cargo Cargo Troops Troops Troops

20 18 16 13 11 9 6 3 one ER

3.5" ss Ville de Alger AP

Bridge WT -- Bulkhead SL Rudder AA ¼ (½)
C + 2 VPs

Troops Troops Cargo Troops

22 20 18 14 10 7 3 one ER

Cargo spaces: Cargo and Troops = ¼ VP • AvGas, POL and Ammo = ½ VP each

Date: 19 : Hrs



ALLIED NORWAY CONVOYS



Weather: Force winds From

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

5" KMS Bremse ML

Bridge DCT -- Bulkhead SL Rudder AA **1½ (1½)**
 350 mines 2 VPs
 Radar
 R F C

1	1	1	1
---	---	---	---

27	23	18	12	8	4
----	----	----	----	---	---

D

4.1" 3.5" KMS Brummer ML

Bridge DCT -- Bulkhead SL Rudder AA **2 (3)**
 450 mines 2½ VPs
 Radar
 R F C

2	1	1	2
---	---	---	---

20	18	16	13	11	9	6	3
----	----	----	----	----	---	---	---

-- ss Alster AK

Bridge WT -- Bulkhead SL Rudder AA -- **(¼)**
 C + 1½ VPs

14	12	9	6	4	2	one ER
----	----	---	---	---	---	--------

C

-- ss Barenfels AK

Bridge WT -- Bulkhead SL Rudder AA -- **(¼)**
 C + 1½ VPs

12	10	8	5	4	2	one ER
----	----	---	---	---	---	--------

C

3.5" ss Curityba AK

Bridge WT -- Bulkhead SL Rudder AA **¼ (½)**
 C + 1 VP

12	10	7	5	2	one ER
----	----	---	---	---	--------

C

3.5" ss Espana AK

Bridge WT -- Bulkhead SL Rudder AA **¼ (½)**
 C + 1½ VPs

12	10	8	5	4	2	one ER
----	----	---	---	---	---	--------

-- ss Friedenau AK

Bridge WT -- Bulkhead SL Rudder AA -- **(¼)**
 C + 1 VP

10	8	6	5	2	one ER
----	---	---	---	---	--------

3.5" ss Hamm AK

Bridge WT -- Bulkhead SL Rudder AA **¼ (½)**
 C + 1 VP

12	10	7	5	2	one ER
----	----	---	---	---	--------

C

3.5" ss Itauri AK

Bridge WT -- Bulkhead SL Rudder AA **¼ (½)**
 C + 1½ VPs

11	9	7	5	3	1	one ER
----	---	---	---	---	---	--------

C

4.1" 3.5" ss Main AK

Bridge WT -- Bulkhead SL Rudder AA **¼ (½)**
 C + 1½ VPs

14	12	9	6	4	2	one ER
----	----	---	---	---	---	--------

C

4.1" MS Neidenfels AK

Bridge WT -- Bulkhead SL Rudder AA **¼ (½)**
 C + 1½ VPs

16	14	10	7	5	2	one ER
----	----	----	---	---	---	--------

D

3.5" MS Rauenfels AK

Bridge WT -- Bulkhead SL Rudder AA **¼ (½)**
 C + 1½ VPs

13	11	8	6	4	2	one ER
----	----	---	---	---	---	--------

D

-- ss Rio de Janeiro AK

Bridge WT -- Bulkhead SL Rudder AA -- **(¼)**
 C + 1 VP

10	8	6	5	2	one ER
----	---	---	---	---	--------

3.5" MS Roda AK

Bridge WT -- Bulkhead SL Rudder AA **¼ (½)**
 C + 1½ VPs

13	11	8	6	4	2	one ER
----	----	---	---	---	---	--------

D

3.5" ss Sao Paulo AK

Bridge WT -- Bulkhead SL Rudder AA -- **(¼)**
 C + 1 VP

10	8	6	5	2	one ER
----	---	---	---	---	--------

C

4.1" 3.5" MS Seattle AK

Bridge WT -- Bulkhead SL Rudder AA **¼ (½)**
 C + 1½ VPs

14	12	9	6	4	2	one ER
----	----	---	---	---	---	--------

D

3.5" ss Tubingen AK

Bridge WT -- Bulkhead SL Rudder AA **¼ (½)**
 C + 1 VP

10	8	6	5	2	one ER
----	---	---	---	---	--------

C

-- ss Tucuman AK

Bridge WT -- Bulkhead SL Rudder AA -- **(¼)**
 C + 1 VP

10	8	6	5	2	one ER
----	---	---	---	---	--------

C

3.5" ss Westsee AK

Bridge WT -- Bulkhead SL Rudder AA **¼ (½)**
 C + 1 VP

11	9	7	5	2	one ER
----	---	---	---	---	--------

3.5" ss Wiegand AK

Bridge WT -- Bulkhead SL Rudder AA **¼ (½)**
 C + 1 VP

10	8	6	5	2	one ER
----	---	---	---	---	--------

C

-- MS Kattegat AO

Bridge WT -- Bulkhead SL Rudder AA -- **(¼)**
 C + 1 VP

12	10	8	5	4	2	one ER
----	----	---	---	---	---	--------

D

3.5" MS Skagerrak AO

Bridge WT -- Bulkhead SL Rudder AA **¼ (¼)**
 C + 1 VP

12	10	8	5	4	2	one ER
----	----	---	---	---	---	--------

D

4.1" MS Stedingen AO

Bridge WT -- Bulkhead SL Rudder AA **¼ (½)**
 C + 1½ VPs

12	11	10	8	5	4	2	one ER
----	----	----	---	---	---	---	--------

D

-- ss Jan Wellem AO

Bridge WT -- Bulkhead SL Rudder AA -- **(¼)**
 C + 2¼ VPs

11	10	9	7	6	5	3	2	one ER
----	----	---	---	---	---	---	---	--------

Cargo spaces: Cargo and Troops = ¼ VP • AvGas, POL and Ammo = ½ VP each

Date: 19

: Hrs



GERMAN NORWAY CONVOYS



Weather:

Force winds From

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

3" SS Conte di Misurata AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
9	8	6	4	3	1	one ER	C + 1 VP

4" 3" MS Duisberg AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
13	11	8	6	4	2	one ER	C + 1 1/2 VPs

3" MS Maria AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
11	9	7	5	2	one ER	D	C + 1 1/4 VPs

3" MS Minatitland AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
12	11	10	8	5	4	2	one ER

3" SS Rina Corrado AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
11	9	7	5	2	one ER	C	C + 1 VP

3" SS Sagitta AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
10	8	6	5	2	one ER	C	C + 1 VP

3" SS San Marco AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
10	8	5	2	one ER			C + 1/2 VP

Loaded Merchant Ship VPs

Conte di Misurata	2 1/2	Rinna Corrado	2 1/4
Duisberg	2 3/4	Sagitta	2 1/4
Maria	2 1/4	San Marco	1 1/4
Minatitland	3 1/2		

4.7" ML Maestrale DD

Bridge	DCT	--	Bulkhead	SL	Rudder	AA	1 (1 1/2)
2	3	3	2	1 DC	Radar	56 mines	2 VPs
35	30	23	16	11	5	Sonar	=

4.7" ER Euro DD

Bridge	DCT	--	Bulkhead	SL	Rudder	AA	1 (1 1/2)
2	3	3	2	1 DC	Radar	52 mines	2 VPs
33	28	21	15	10	4	Sonar	=

4.7" FL Fulmine DD

Bridge	DCT	--	Bulkhead	SL	Rudder	AA	1 (1 1/2)
2	3	3	2	1 DC	Radar	52 mines	2 VPs
34	29	22	15	10	5	Sonar	=

4.7" GR Grecale DD

Bridge	DCT	--	Bulkhead	SL	Rudder	AA	1 (1 1/2)
2	3	3	2	1 DC	Radar	56 mines	2 VPs
35	30	23	16	11	5	Sonar	=

4.7" LI Libeccio DD

Bridge	DCT	--	Bulkhead	SL	Rudder	AA	1 (1 1/2)
2	3	3	2	1 DC	Radar	56 mines	2 VPs
35	30	23	16	11	5	Sonar	=

4.7" OA Oriani DD

Bridge	DCT	--	Bulkhead	SL	Rudder	AA	1 (2)
2	3	3	2	2 DC	Radar	56 mines	2 VPs
36	32	29	23	16	11	5	Sonar

Convoy Escort

Distant Escort

4.7" AP Alpino DD

Bridge	DCT	--	Bulkhead	SL	Rudder	AA	1 1/2 (2)
2	3	3	2	2 DC	Radar	48 mines	2 VPs
36	32	29	23	16	11	5	Sonar

4.7" BG Bersagliere DD

Bridge	DCT	--	Bulkhead	SL	Rudder	AA	1 1/2 (2)
2	3	1	3	2	2 DC	Radar	48 mines
36	32	29	23	16	11	5	Sonar

8" 3.9" Trieste CL (CA)

CT	DCT	DCT	Bulkhead	SL	Rudder	AA	2 (3)
2	2	2	2	2	2	5 VPs	
35	32	28	23	16	11	5	UE

8" 3.9" Trento CL (CA)

CT	DCT	DCT	Bulkhead	SL	Rudder	AA	2 (3)
2	2	2	2	2	2	5 VPs	
35	32	28	23	16	11	5	UE

4.7" FC Fuciliere DD

Bridge	DCT	--	Bulkhead	SL	Rudder	AA	1 1/2 (2)
2	3	1	3	2	2 DC	Radar	48 mines
36	32	29	23	16	11	5	Sonar

4.7" GN Granatiere DD

Bridge	DCT	--	Bulkhead	SL	Rudder	AA	1 1/2 (2)
2	3	1	3	2	2 DC	Radar	48 mines
36	32	29	23	16	11	5	Sonar

Cargo spaces: Cargo and Coal = 1/4 VP • AvGas, POL and Ammo = 1/2 VP each

Date: 19

: Hrs



BETA CONVOY



Weather:

Force winds From

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

3" **SS Almeria Lykes** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	POL	Cargo		Cargo	Cargo		C + 1 1/2 VPs
16	14	10	7	5	2	one ER	

4" **3"** **MS Brisbane Star** **AF**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/2 (1)
Cargo	POL	Cargo	Cargo	Cargo	Cargo	Cargo	C + 2 1/2 VPs
16	14	13	10	7	5	2	one ER

3" **SS Clan Ferguson** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Ammo	Cargo		Cargo	AvGas			C + 1 1/2 VPs
16	14	10	7	5	2	one ER	

3" **MS Deucalion** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Cargo	Cargo		Cargo	Cargo		C + 1 1/2 VPs
16	14	10	7	5	2	one ER	

3" **MS Dorset** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Cargo	Cargo		Cargo	AvGas	Cargo	C + 2 VPs
16	14	13	10	7	5	2	one ER

4.7" **MS Empire Hope** **AF**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/2 (2)
Cargo	POL	Cargo	Ammo	Cargo	Cargo	Ammo	C + 3 1/4 VPs
16	14	13	10	7	5	2	one ER

4" **MS Glenorchy** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Ammo	Cargo		Cargo	AvGas		C + 1 1/4 VP
18	15	12	8	5	2	one ER	

4" **3"** **MS Melbourne Star** **AF**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/2 (1)
Cargo	AvGas	Cargo	Cargo		Cargo	POL	C + 2 1/2 VPs
16	14	13	10	7	5	2	one ER

5"c **3"** **SS Ohio** **AO**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1 1/2)
POL	POL			POL	POL	POL	C + 1 1/4 VPs
16	14	13	10	9	7	5	2

3" **MS Port Chalmers** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Cargo	Cargo		Cargo	AvGas		C + 1 1/2 VPs
16	14	10	7	5	2	one ER	

3" **MS Rochester Castle** **AF**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
Cargo	Ammo	Cargo		Cargo	Cargo		C + 2 VPs
16	14	10	7	5	2	one ER	

3" **SS Santa Elisa** **AK**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
AvGas	Cargo	Cargo		Cargo	Cargo		C + 1 1/2 VPs
15	13	10	7	5	2	one ER	

4" **3"** **MS Waimarama** **AF**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/2 (1)
Cargo	AvGas	Cargo	Cargo		Cargo	Cargo	C + 3 VPs
16	14	13	10	7	5	2	one ER

Loaded Merchant Ship VPs

America Lykes	3	Dorset	3 3/4	Ohio	4 1/4	Waimarama	5 1/4
Brisbane Star	4 3/4	Empire Hope	6	Port Chalmers	3	Wairangi	5 1/4
Clan Ferguson	3	Glenorchy	3 1/2	Rochester Castle	3 1/2		
Deucalion	2 3/4	Melbourne Star	5	Santa Elisa	3		

4" **3"** **SS Wairangi** **AF**

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/2 (1)
Cargo	POL	Cargo	Cargo		Cargo	Ammo	C + 3 VPs
17	15	14	11	8	5	3	one ER

5" **DD**

Bridge	DCT	--	Bulkhead	SL	Rudder	AA
						2 VPs
						Radar
						R F C
						Sonar

5" **DD**

Bridge	DCT	--	Bulkhead	SL	Rudder	AA
						2 VPs
						Radar
						R F C
						Sonar

5" **DD**

Bridge	DCT	--	Bulkhead	SL	Rudder	AA
						2 VPs
						Radar
						R F C
						Sonar

5" **DD**

Bridge	DCT	--	Bulkhead	SL	Rudder	AA
						2 VPs
						Radar
						R F C
						Sonar

5" **DD**

Bridge	DCT	--	Bulkhead	SL	Rudder	AA
						2 VPs
						Radar
						R F C
						Sonar

5" **DD**

Bridge	DCT	--	Bulkhead	SL	Rudder	AA
						2 VPs
						Radar
						R F C
						Sonar

5" **DD**

Bridge	DCT	--	Bulkhead	SL	Rudder	AA
						2 VPs
						Radar
						R F C
						Sonar

5" **DD**

Bridge	DCT	--	Bulkhead	SL	Rudder	AA
						2 VPs
						Radar
						R F C
						Sonar

Cargo spaces: Cargo and Coal = 1/4 VP • AvGas, POL and Ammo = 1/2 VP each

Date: 19

: Hrs



PEDESTAL CONVOY



Weather:

Force winds From

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

5" USS Aylwin DD

Bridge DCT -- Bulkhead SL Rudder AA 4 (4)
2 VPs

1 1 ④ ④ 1 1 2 DC Radar -
0000 R F C -
35 30 23 16 11 5 Sonar -

3" USS Chandler DMS

Bridge DCT -- Bulkhead SL Rudder AA 1½ (2)
1½ VPs

1 1 2 DC Radar -
0000 R F C -
27 23 18 12 8 4 Sonar -

5" USS Dale DD

Bridge DCT -- Bulkhead SL Rudder AA 4 (4)
2 VPs

1 1 ④ ④ 1 1 2 DC Radar -
0000 R F C -
35 30 23 16 11 5 Sonar -

5" USS Dewey DD

Bridge DCT -- Bulkhead SL Rudder AA 4 (4)
2 VPs

1 1 ④ ④ 1 1 2 DC Radar -
0000 R F C -
35 30 23 16 11 5 Sonar -

3" USS Elliot DMS

Bridge DCT -- Bulkhead SL Rudder AA 1½ (2)
1½ VPs

1 1 2 DC Radar -
0000 R F C -
27 23 18 12 8 4 Sonar -

5" USS Farragut DD

Bridge DCT -- Bulkhead SL Rudder AA 4 (4)
2 VPs

1 1 ④ ④ 1 1 2 DC Radar -
0000 R F C -
35 30 23 16 11 5 Sonar -

5" USS Hull DD

Bridge DCT -- Bulkhead SL Rudder AA 4 (4)
2 VPs

1 1 ④ ④ 1 1 2 DC Radar -
0000 R F C -
35 30 23 16 11 5 Sonar -

8" 5"AA USS Indianapolis CA (CL)

Bridge DCT DCT Bulkhead SL Rudder AA 6 (10)
5 VPs

3 3 Hangar 3 Radar +
0000 R F C -
32 29 26 21 14 10 5 UE F P 2

3" USS Kane APD

Bridge DCT -- Bulkhead SL Rudder AA 2 (3)
2 VPs

1 1 Troops 1 2 DC Radar -
0000 R F C -
25 21 16 11 8 3 Sonar -

3" USS Long DMS

Bridge DCT -- Bulkhead SL Rudder AA 1½ (2)
1½ VPs

1 1 2 DC Radar -
0000 R F C -
27 23 18 12 8 4 Sonar -

5" USS Monaghan DD

Bridge DCT -- Bulkhead SL Rudder AA 4 (4)
2 VPs

1 1 ④ ④ 1 1 2 DC Radar -
0000 R F C -
35 30 23 16 11 5 Sonar -

3" USS Perry DMS

Bridge DCT -- Bulkhead SL Rudder AA 1½ (2)
1½ VPs

1 1 2 DC Radar -
0000 R F C -
27 23 18 12 8 4 Sonar -

3" USS Pruitt DM

Bridge DCT -- Bulkhead SL Rudder AA 1½ (2)
80 mines 1½ VPs

1 1 1 DC Radar -
0000 R F C -
27 23 18 12 8 4 Sonar -

8" 5"AA USS Salt Lake City CL (CL)

Bridge DCT DCT Bulkhead SL Rudder AA 6 (12)
5 VPs

2 3 3 2 Radar +
0000 R F C +/-
32 29 26 21 14 10 5 UE F P 2

3" USS Williamson AVD

Bridge DCT -- Bulkhead SL Rudder AA 1 (2)
2 VPs

1 Cargo 1 1 DC Radar -
0000 R F C -
25 21 16 11 8 3 PBV tender Sonar -

3" USS J. Franklin Bell APA

Bridge W/T -- Bulkhead Rudder AA 1 (3)
C + 3½ VPs

Cargo Troops Troops Troops Troops Cargo Radar
17 15 14 11 8 5 3 one ER

3" USS Harris APA

Bridge W/T -- Bulkhead Rudder AA 1 (3)
C + 3½ VPs

Cargo Troops Troops Troops Troops Cargo Radar
17 15 14 11 8 5 3 one ER

3" USS Heywood APA

Bridge W/T -- Bulkhead Rudder AA 1 (3)
C + 2 VPs

Troops Troops Troops Cargo Radar
16 14 10 7 5 2 one ER

4" MS Perida AK

Bridge W/T -- Bulkhead Rudder AA ½ (½)
C + 1½ VP

Cargo Cargo Cargo Cargo Radar
13 11 8 6 4 2 one ER D

3" USS Zeilin APA

Bridge W/T -- Bulkhead Rudder AA 1 (3)
C + 3½ VPs

Cargo Troops Troops Troops Troops Cargo Radar
17 15 14 11 8 5 3 one ER

5" USS MacDonough DD

Bridge DCT -- Bulkhead SL Rudder AA 4 (4)
2 VPs

1 1 ④ ④ 1 1 2 DC Radar -
0000 R F C -
35 30 23 16 11 5 Sonar -

5" USS Worden DD

Bridge DCT -- Bulkhead SL Rudder AA 4 (4)
2 VPs

1 1 ④ ④ 1 1 2 DC Radar -
0000 R F C -
35 30 23 16 11 5 Sonar -

5" USS Bailey DD

Bridge DCT -- Bulkhead SL Rudder AA 4 (4)
2 VPs

1 1 ⑤ 1 1 3 DC Radar +
0000 R F C -
35 32 28 23 16 11 5 UE Sonar -

5" USS Parker DD

Bridge DCT -- Bulkhead SL Rudder AA 4 (4)
2 VPs

1 1 ⑤ 1 1 3 DC Radar +
0000 R F C -
35 32 28 23 16 11 5 UE Sonar -

Cargo spaces: Cargo and Coal = ¼ VP • POL and Ammo = ½ VP • Troops = ¼ VP each

Date: 19 : Hrs



USN Aleutian Amphibious



Weather: Force winds From

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

5"c 3" USS Nitro AE

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1 (1/2)
C + 1 1/2 VPs							
13	11	8	6	4	2	one ER	

3" USS Arctic AF

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/2 (1/2)
C + 1 1/2 VPs							
12	10	7	5	2	one ER		

5"c 3" USS Bridge AF

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
C + 1 1/2 VPs							
14	11	8	6	3	one ER		

5"c 3" USS Sirius AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/2 (1/2)
C + 1 VP							
11	9	7	5	2	one ER		

3" ss City of Baltimore AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
C + 1 1/4 VPs							
17	14	11	8	5	2	one ER	

-- ss Lahaina AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
C + 1 VP							
11	9	7	5	2	one ER		

4" ss Pan Kraft AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
C + 1 VP							
11	9	7	5	2	one ER		

3" ss Oklahoman AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
C + 1 VP							
11	9	7	5	2	one ER		

-- ss Redstone AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
C + 1/2 VP							
11	8	6	2	one ER			C

3" ss Tacoma Star AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
C + 1 1/2 VPs							
13	11	8	6	4	2	one ER	C

-- ss William L. Thompson AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
C + 1 VP							
11	9	7	5	2	one ER		

3" ss West Cactus AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
C + 1 VP							
11	9	7	5	2	one ER		

-- USS Chaumont AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (1/4)
C + 1 1/2 VPs							
15	13	10	7	5	2	one ER	

5"c 3" USS Henderson AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
C + 1 1/2 VPs							
12	10	8	5	4	2	one ER	100 mines

-- ss Mariposa AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
C + 3 1/2 VPs							
23	21	18	15	13	10	7	3

-- ss Monterey AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
C + 3 1/2 VPs							
21	19	17	14	12	9	6	3

3" ss President Hoover AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
C + 4 VPs							
20	18	16	13	11	9	6	3

3" USAT U. S. Grant AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/2 (1/2)
C + 1 1/4 VPs							
15	13	10	7	5	2	one ER	

5"c 3" USS Brazos AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
C + 1 1/4 VP							
14	12	9	6	4	2	one ER	

5"c 3" USS Cuyama AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
C + 1 1/4 VP							
14	12	9	6	4	2	one ER	

5"c 3" USS Neches AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
C + 1 1/4 VP							
14	12	9	6	4	2	one ER	

3" ss George G. Henry AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
C + 1 1/4 VPs							
10	9	8	7	5	3	2	one ER

-- ss Mindanao AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
C + 1 VP							
11	9	7	5	3	1	one ER	

-- MS Ulysses AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
C + 2 VPs							
10	9	8	7	6	5	3	2

Cargo spaces: Cargo and Coal = 1/4 VP • POL and Ammo = 1/2 VP • Troops = 1/4 VP each

Date: : Hrs



BLUE CONVOYS



Weather: Force winds From

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

5.5" 3" IJN Mamiya AF

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
1	Cargo		Cargo		Cargo		C + 2 VPs
14	12	9	6	4	2	one ER	C

3" IJN Seito AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
10	8	6	5	2	one ER		C

-- SS Akashi Maru AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
11	8	6	2	one ER			C + 1/2 VP

3" SS Lima Maru AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
12	10	8	5	4	2	one ER	C

3" SS Miyadono Maru AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
11	9	7	5	3	1	one ER	C + 1 VP

-- SS Shinkyo Maru AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
11	9	7	5	3	1	one ER	C + 1 VP

-- SS Woosung Maru AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
11	8	6	2	one ER			C + 1/2 VP

3" SS Yuki Maru AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
12	10	8	5	4	2	one ER	C

-- MS Sansei Maru AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
11	8	6	3	one ER			C + 1/2 VP

3" SS Tokai Maru AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
17	14	11	8	5	2	one ER	C + 1 1/2 VPs

-- MS Asama Maru AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
20	18	16	13	11	9	6	3

3" MS Chichibu Maru AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
20	18	16	13	11	9	6	3

4.7" SS Hakozaki Maru AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/2)
16	14	13	10	7	5	2	one ER

3" SS Hakusan Maru AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
16	14	13	10	7	5	2	one ER

-- MS Hikawa Maru AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
17	15	14	11	8	5	3	one ER

3" IJN Shinshu Maru AKA

Bridge	WT	--	Bulkhead	SL	Rudder	AA	3/4 (1)
19	16	12	9	6	2	one ER	20 Landing Craft

5.5" 3" IJN Erimo AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
14	13	11	9	6	4	2	one ER

5.5" 3" IJN Naruto AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
14	13	11	9	6	4	2	one ER

5.5" 3" IJN Ondo AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
14	13	11	9	6	4	2	one ER

5.5" 3" IJN Shiretoko AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
14	13	11	9	6	4	2	one ER

3" SS Arima Maru AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	1/4 (1/4)
19	16	12	9	6	2	one ER	D

3" MS Fujisan Maru AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
18	16	14	12	8	5	3	one ER

-- MS Kyokuto Maru AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
19	17	15	12	10	9	6	3

-- MS Teiyo Maru AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	-- (--)
17	15	14	11	9	8	5	3

Cargo spaces: Cargo and Coal = 1/4 VP • POL and Ammo = 1/2 VP • Troops = 1/4 VP each

Date: 19 : Hrs



ORANGE CONVOYS



Weather: Force winds From

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

AC

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Coal	Coal		Coal				C + 1 VP
						one ER	

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo			Cargo				C + ½ VP
						one ER	C

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Cargo		Cargo				C + ¾ VP
						one ER	C

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Cargo		Cargo				C + ¾ VP
						one ER	

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Cargo		Cargo				C + ¾ VP
						one ER	

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Cargo		Cargo	Cargo			C + 1¼ VPs
						one ER	C

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Cargo		Cargo	Cargo			C + 1¼ VPs
						one ER	

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Cargo		Cargo	Cargo			C + 1¼ VPs
						one ER	

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Cargo		Cargo	Cargo			C + 1¼ VPs
						one ER	

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Cargo		Cargo	Cargo			C + 1½ VPs
						one ER	

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Cargo		Cargo	Cargo			C + 1½ VPs
						one ER	

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Cargo		Cargo	Cargo			C + 1½ VPs
						one ER	

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Cargo		Cargo	Cargo			C + 1½ VPs
						one ER	

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Cargo		Cargo	Cargo	Cargo		C + 1 VP
						one ER	

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Cargo		Cargo	Cargo	Cargo		C + 1¼ VPs
						one ER	

AK

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Cargo		Cargo	Cargo	Cargo	Cargo	C + ¾ VPs
						one ER	

AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
POL	POL		POL	POL			C + 1½ VPs
						one ER	

AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
POL	POL		POL	POL			C + 1¼ VPs
						one ER	

AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
POL	POL		POL	POL	POL		C + 2 VPs
						one ER	

AO

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
POL	POL		POL	POL	POL	POL	C + 2½ VPs
						one ER	

AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Cargo	Troops		Troops	Troops	Troops		C + 3 VPs
						one ER	

AP

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Troops	Troops		Troops	Cargo			C + 2 VPs
						one ER	

APA

Bridge	WT	--	Bulkhead	Rudder	AA		
Troops	Troops		Troops	Cargo			C + 2 VPs
						one ER	

APA

Bridge	WT	--	Bulkhead	SL	Rudder	AA	
Troops	Troops		Troops	Cargo			C + 2 VPs
						one ER	

Cargo spaces: Cargo and Troops = ¼ VP • AvGas, POL and Ammo = ½ VP each

Date: 19

: Hrs

CONVOYS

GQ

Weather:

Force winds From

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

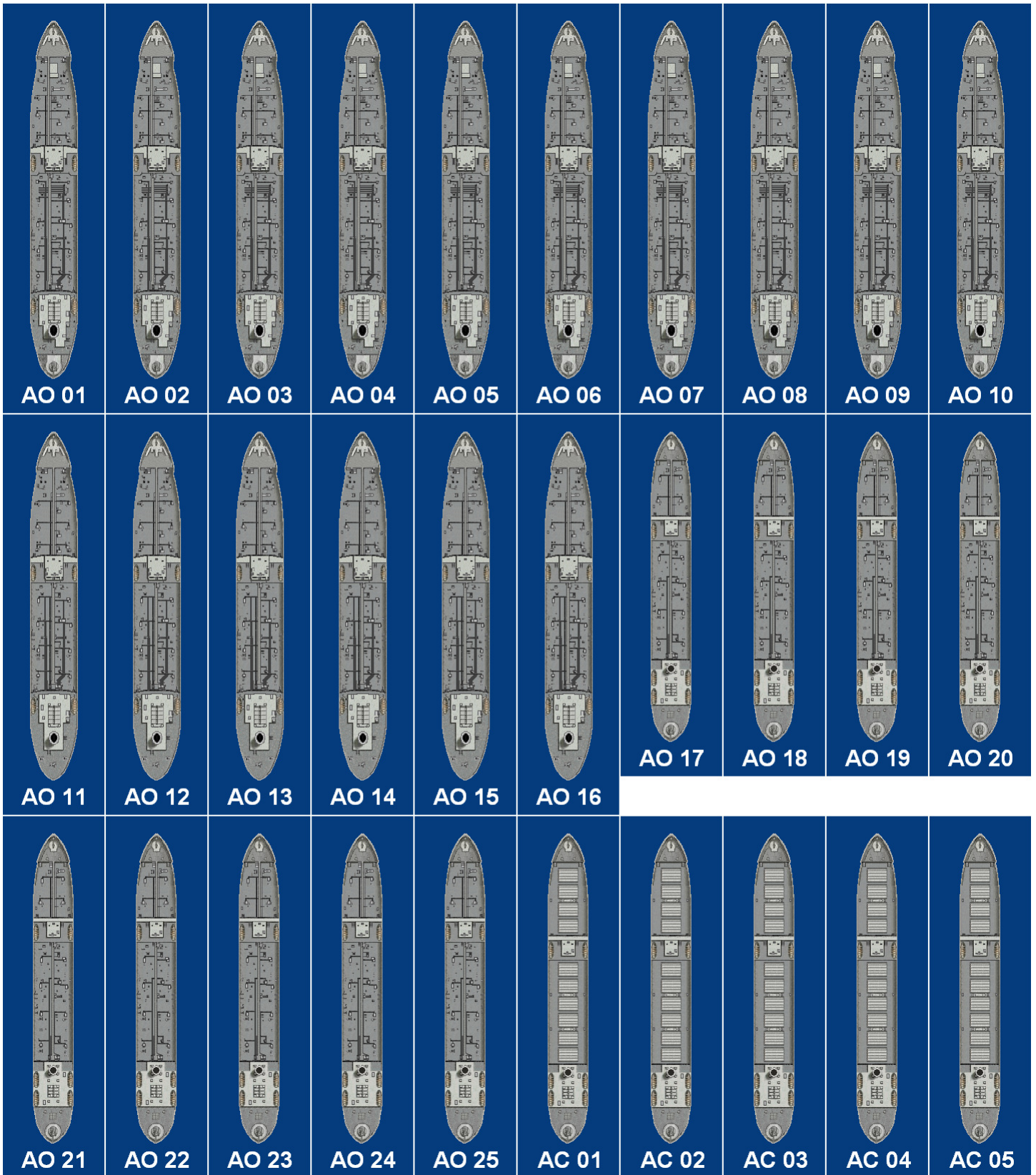
Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

Flagship:	Deck Log	CO:
1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

1/2400 Specials

									
Res 01	Res 02	CAM 01	CAM 02	CAM 03	AA 01	AA 02	AA 03	AA 04	AA 05
									
Corv 01	Corv 02	Corv 03	Corv 04	Corv 05	Corv 06	Corv 07	Corv 08	Corv 09	Corv 10
									
Tr 01	Tr 02	Tr 03	Tr 04	Tr 05	Tr 06	Tr 07	Tr 08	Tr 09	Tr 10
									
Slp 01	Slp 02	Slp 03	Slp 04	Slp 05	Slp 06	Slp 07	Slp 08	Slp 09	Slp 10
									
SS 01	SS 02	SS 03	SS 04	SS 05	SS 06	SS 07	SS 08	SS 09	SS 10

1/2400 Tankers (AO) and Colliers (AC)



AK 01	AK 02	AK 03	AK 04	AK 05	AK 06	AK 07	AK 08	AK 09	AK 10
AK 11	AK 12	AK 13	AK 14	AK 15	AK 16	AK 17	AK 18	AK 19	AK 20
AK 21	AK 22	AK 23	AK 24	AK 25	AK 26	AK 27	AK 28	AK 29	AK 30

AK 01

AK 02

AK 03

AK 04

AK 05

AK 06

AK 07

AK 08

AK 09

AK 10

AK 11

AK 12

AK 13

AK 14

AK 15

AK 16

AK 17

AK 18

AK 19

AK 20

AK 21

AK 22

AK 23

AK 24

AK 25

AK 26

AK 27

AK 28

AK 29

AK 30

AK 31	AK 32	AK 33	AK 34	AK 35	AK 36	AK 37	AK 38	AK 39	AK 40
AK 41	AK 42	AK 43	AK 44	AK 45	AK 46	AK 47	AK 48	AK 49	AK 50
AK 51	AK 52	AK 53	AK 54	AK 55	AK 56	AK 57	AK 58	AK 59	AK 60

AK 40

AK 50

AK 60

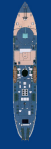
AK 61	AK 62	AK 63	AK 64	AK 65	AK 66	AK 67	AK 68	AK 69	AK 70
AK 71	AK 72	AK 73	AK 74	AK 75	AK 76	AK 77	AK 78	AK 79	AK 80
AK 81	AK 82	AK 83	AK 84	AK 85	AK 86	AK 87	AK 88	AK 89	AK 90

AK 70

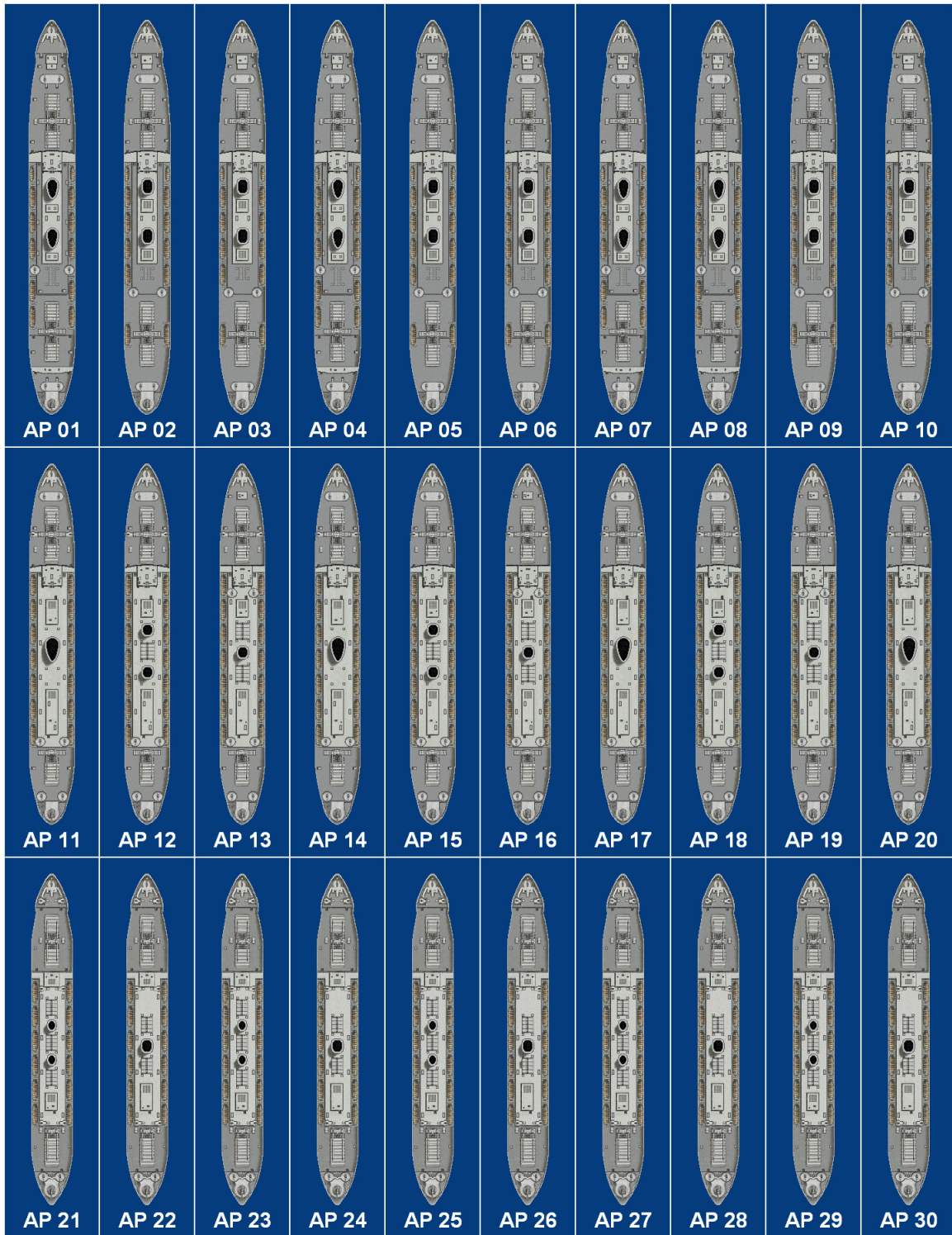
AK 80

AK 90

1/3000 Specials

									
Res 01	Res 02	CAM 01	CAM 02	CAM 03	AA 01	AA 02	AA 03	AA 04	AA 05
									
Corv 01	Corv 02	Corv 03	Corv 04	Corv 05	Corv 06	Corv 07	Corv 08	Corv 09	Corv 10
									
Tr 01	Tr 02	Tr 03	Tr 04	Tr 05	Tr 06	Tr 07	Tr 08	Tr 09	Tr 10
									
Slp 01	Slp 02	Slp 03	Slp 04	Slp 05	Slp 06	Slp 07	Slp 08	Slp 09	Slp 10
									
SS 01	SS 02	SS 03	SS 04	SS 05	SS 06	SS 07	SS 08	SS 09	SS 10

1/3000 Passenger (AP) and Passenger/Cargo (AP) Ships



AO 01	AO 02	AO 03	AO 04	AO 05	AO 06	AO 07	AO 08	AO 09	AO 10
AO 11	AO 12	AO 13	AO 14	AO 15	AO 16	AO 17	AO 18	AO 19	AO 20
AO 21	AO 22	AO 23	AO 24	AO 25	AC 01	AC 02	AC 03	AC 04	AC 05

1/3000 Cargo Ships (AK)

									
AK 01	AK 02	AK 03	AK 04	AK 05	AK 06	AK 07	AK 08	AK 09	AK 10
									
AK 11	AK 12	AK 13	AK 14	AK 15	AK 16	AK 17	AK 18	AK 19	AK 20
									
AK 21	AK 22	AK 23	AK 24	AK 25	AK 26	AK 27	AK 28	AK 29	AK 30

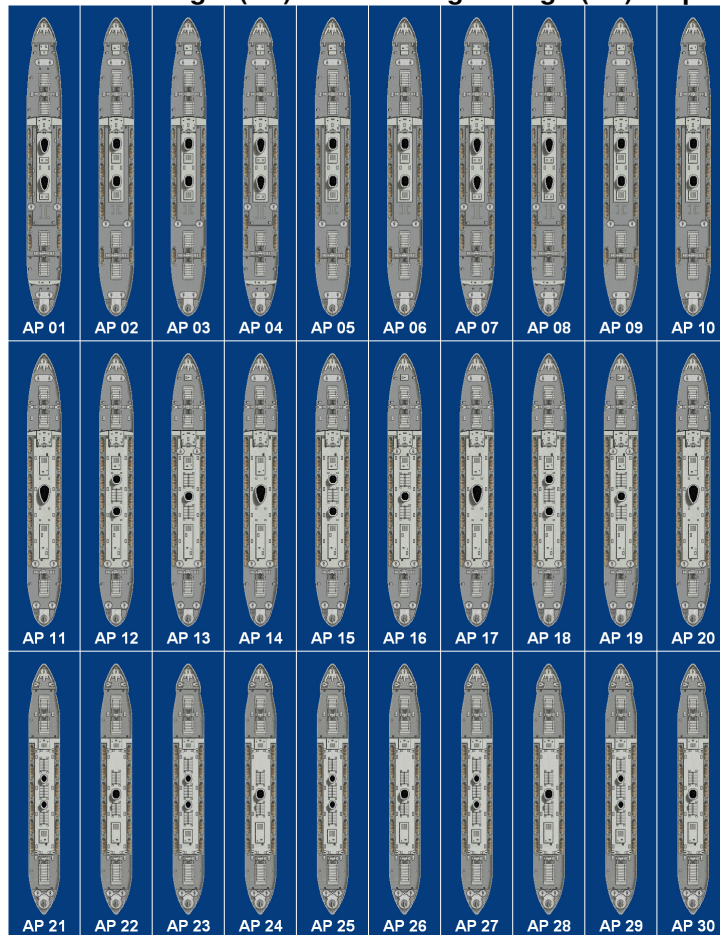
1/3000 Cargo Ships (AK)

									
AK 31	AK 32	AK 33	AK 34	AK 35	AK 36	AK 37	AK 38	AK 39	AK 40
									
AK 41	AK 42	AK 43	AK 44	AK 45	AK 46	AK 47	AK 48	AK 49	AK 50
									
AK 51	AK 52	AK 53	AK 54	AK 55	AK 56	AK 57	AK 58	AK 59	AK 60

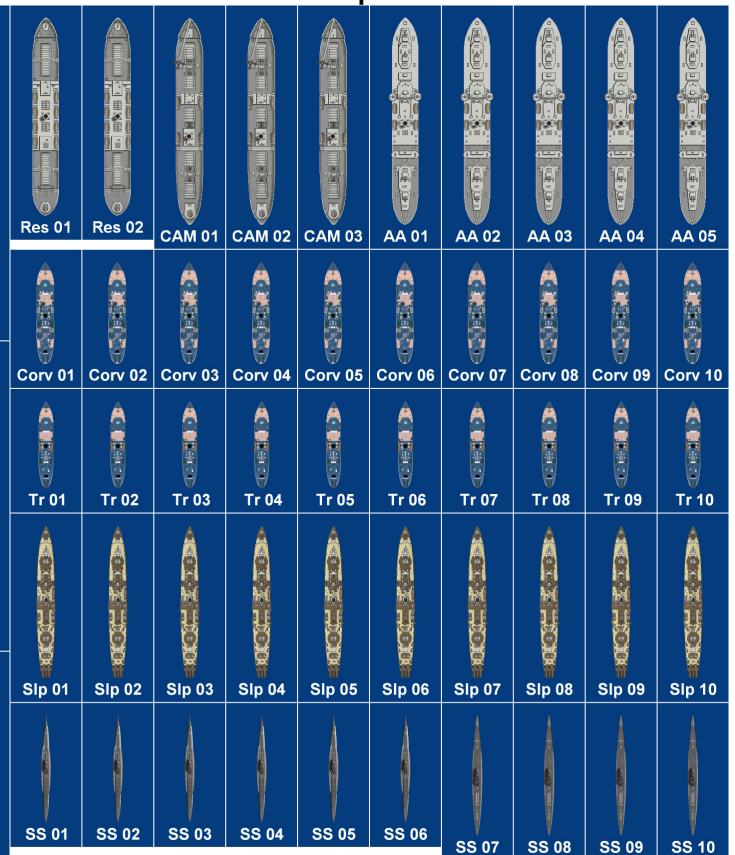
1/3000 Cargo Ships (AK)

									
AK 61	AK 62	AK 63	AK 64	AK 65	AK 66	AK 67	AK 68	AK 69	AK 70
									
AK 71	AK 72	AK 73	AK 74	AK 75	AK 76	AK 77	AK 78	AK 79	AK 80
									
AK 81	AK 82	AK 83	AK 84	AK 85	AK 86	AK 87	AK 88	AK 89	AK 90

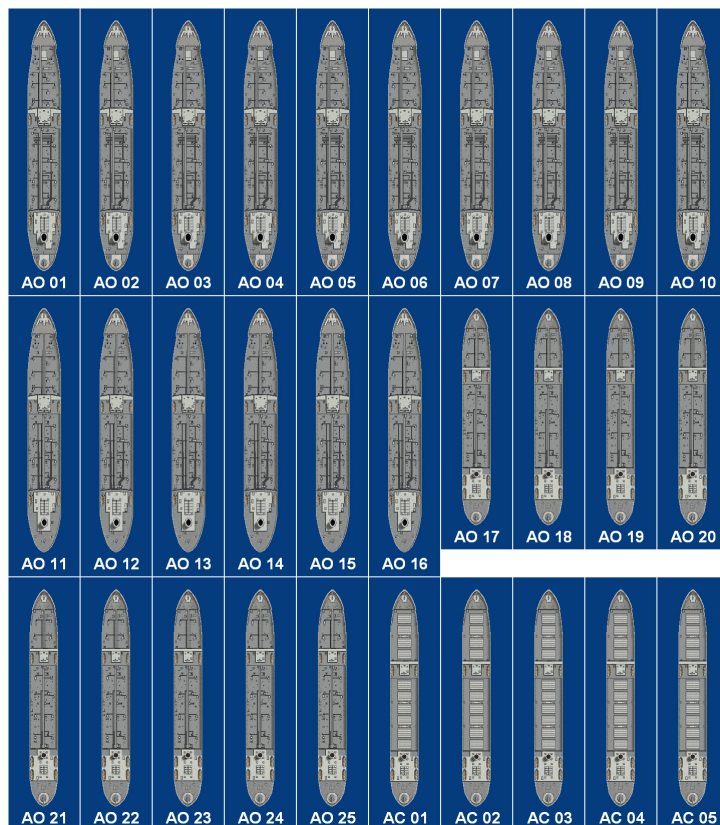
1/4800 Passenger (AP) and Passenger/Cargo (AP) Ships



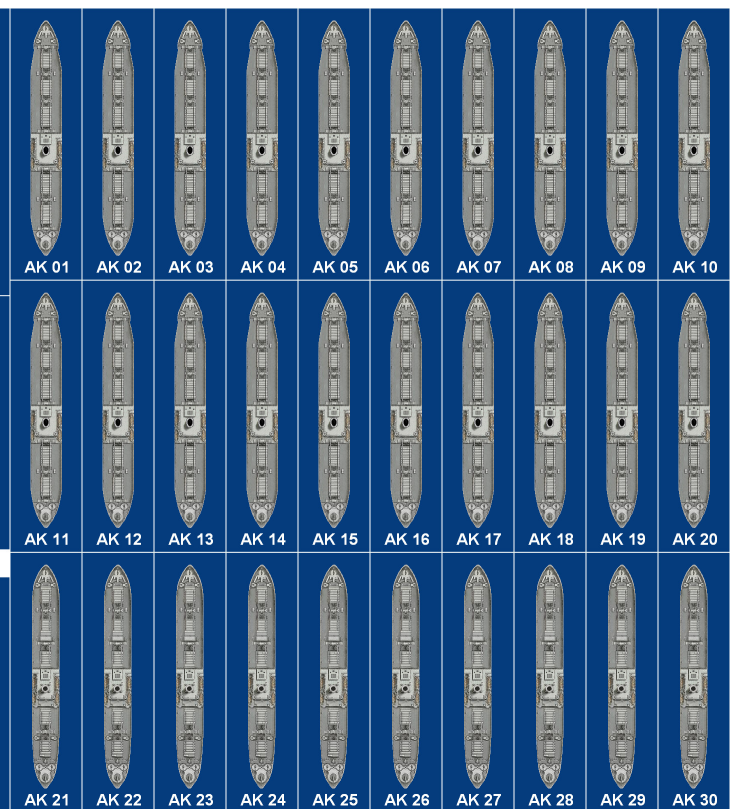
1/4800 Specials



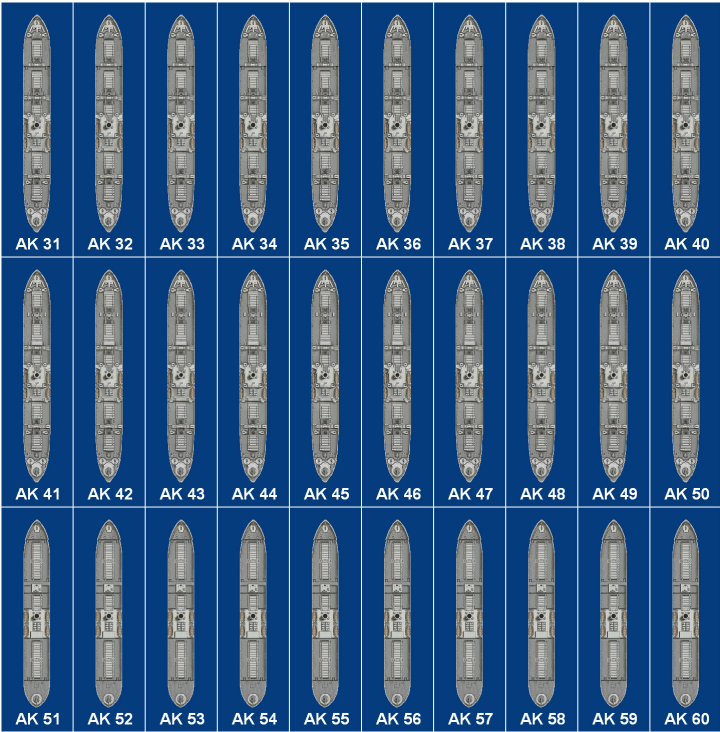
1/4800 Tankers (AO) and Colliers (AC)



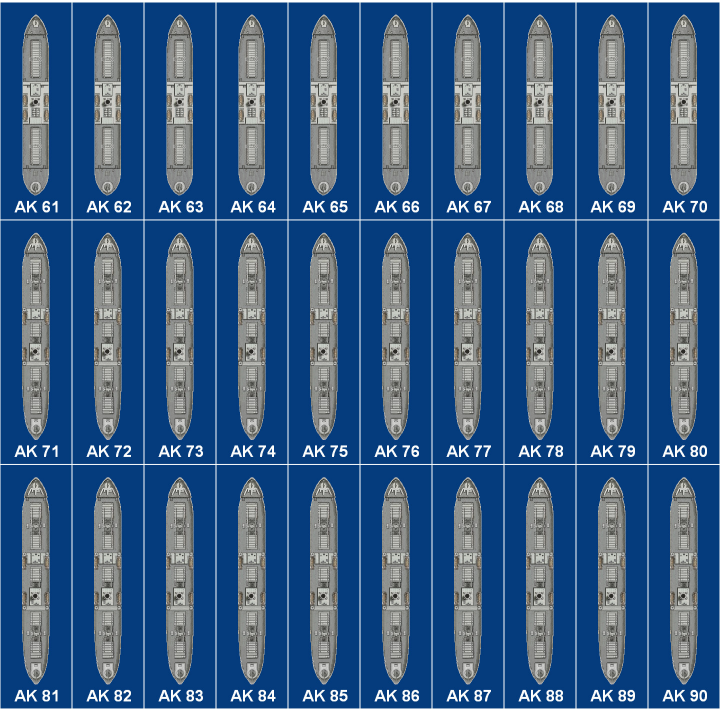
1/4800 Cargo Ships (AK)



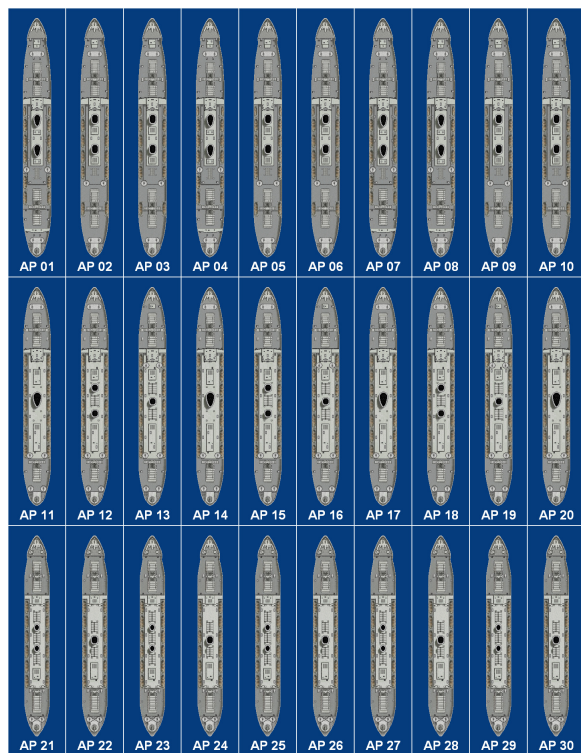
1/4800 Cargo Ships (AK)



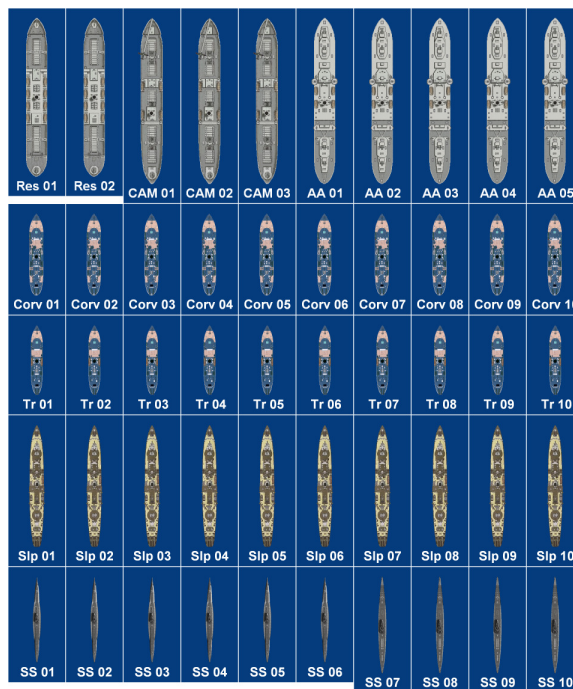
1/4800 Cargo Ships (AK)



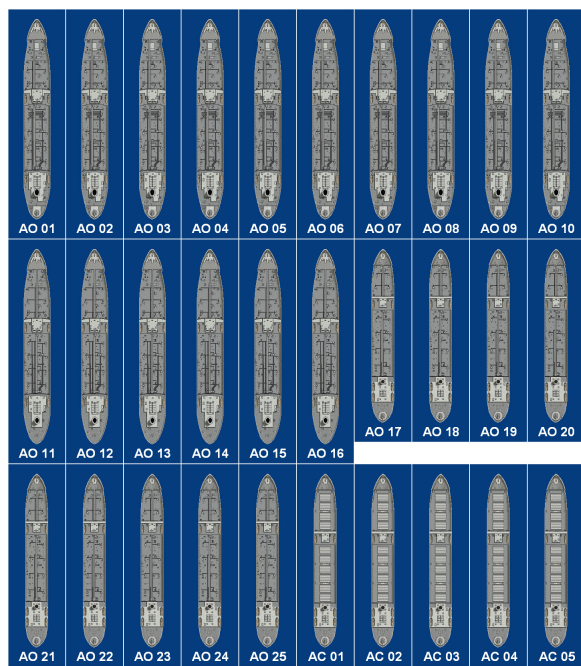
1/6000 Passenger (AP) and Passenger/Cargo (AP) Ships



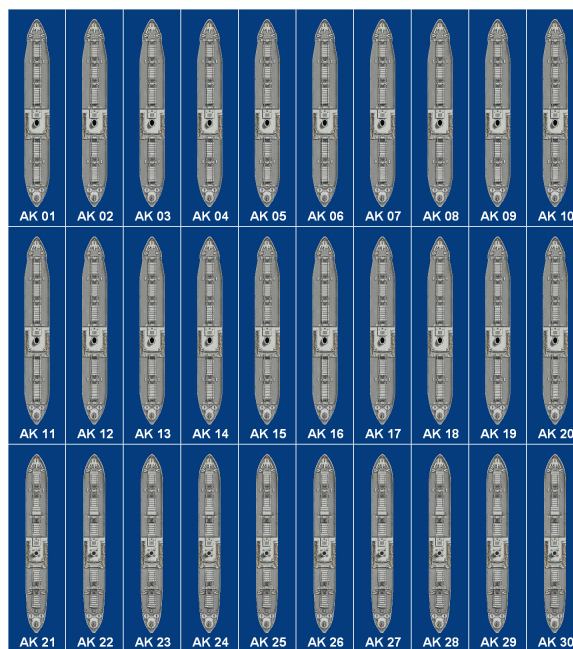
1/6000 Special



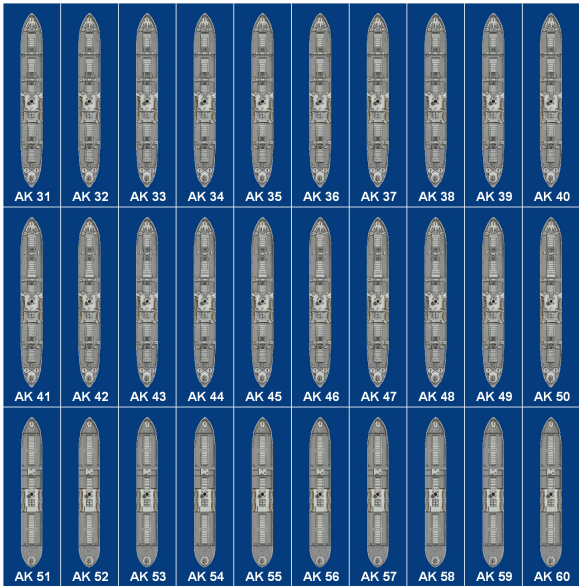
1/6000 Tankers (AO) and Colliers (AC)



1/6000 Cargo Ships (AK)



1/6000 Cargo Ships (AK)



1/6000 Cargo Ships (AK)

