



Naval Operations

20. NAVAL UNITS

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20.1 OVERVIEW:

20.11 The following naval units are represented in the game:

20.111 FLEETS:

- A. Destroyers (DDs).
- B. Cruisers (CAs).
- C. Capital ships (non-carrier named ships).

20.112 FAST CARRIERS:

- A. Light carriers (CVLs).
- B. Fleet carriers (CVs).
- C. Super carriers (CVBs).

20.113 ESCORT CARRIERS (CVEs)

20.114 TRANSPORTS

20.115 SUBMARINES

20.116 ASW

20.12 DISTINGUISHING FEATURES: Naval units are distinguished from one another by where they may base; what operations they may carry out; the time, shipbuilding points and BRP cost of construction and repair; and certain other unique abilities.

A. LIGHT SHIPS: Destroyers, cruisers, transports and CVEs are light ships.

B. HEAVY SHIPS: Capital ships and fast carriers are heavy ships.

20.121 SPEED: Naval units fall into two categories, "slow" and "fast", as follows:

- A. All damaged ships are slow.
- B. CVEs are slow.
- C. Capital ships with an orange stripe on their counter are slow.
- D. Transports are slow.
- E. All other naval units are fast.

All undamaged German and Italian capital ships are fast. Japan and France have a handful of slow battleships, while most of the starting British and American capital ships are slow.

20.13 Fleets, carriers, submarines, ASW and transports are naval units. Submarines, ASW and transports are also SW units.

20.14 For basing, naval construction, and other purposes associated with the size of naval forces, fleet, carrier, ASW, transport and submarine factors are equivalent.

20.15 BASING: Naval units must base in ports, in hexes containing port counters or in mapboard boxes. Each port may base 50 naval factors. A hex containing two ports may therefore base 100 naval factors. Each port counter may base 50 naval factors. There is no limit to the number of naval factors which may base in a mapboard box (5). Naval units may also be placed in SW boxes. See 21.1 for details of naval basing.



20.16 TFs

20.161 Each major power is provided with TF counters as follows: Germany: 4; Italy: 4; Japan: 12; Britain: 12; France: 4; U.S.: 12; Russia: 3; China: none. The number of TF counters may not be expanded by production.

20.162 A TF counter, if available, may be placed on the board to represent a naval force. A naval force consisting of ten or more naval factors must be in a TF in order to conduct a naval activity (21.312). TF formation is subject to the following restrictions:

A. A TF must consist of no fewer than 10 naval factors and no more than 25 naval factors (EXCEPTION: Japan's Pearl Harbor strike force - 51.12).

B. A TF may not contain damaged naval units, submarines, ASW or transports.

C. TFs may only contain naval units belonging to one major power and its associated and allied minor countries. Vichy French naval units may be included in Italian or German TFs; Free French naval units are treated as British naval units; Australian naval units lent to the U.S. are treated as American naval units (52.71).

D. A TF may not contain both inverted and uninverted naval units. TFs which consist of inverted naval units are indicated by inverting the TF counter.

E. Until the end of the redeployment phase, TFs belonging to the moving player may not contain both inverted naval units which were inverted at the start of the moving player's turn and inverted naval units which were inverted in the course of play during the moving player's turn because they carried out a mission or activity.

F. For each fast carrier factor in a TF, that TF must also contain at least one fast fleet factor (EXCEPTION: Japan's Pearl Harbor strike force - 51.12).

The effect of 20.162F is that no more than half (rounded down) of the naval factors in a TF may be fast carriers, and a TF may never contain more than 12 fast carrier factors (as the maximum size of a TF is 25 naval factors).

20.163 A naval force retains its TF status while at sea even if combat losses result in it no longer meeting the conditions necessary to be a TF. When the naval force returns to port, its TF marker would be removed unless the port contained other naval units sufficient to bring the depleted TF up to the required strength.

20.164 FORMATION AND CONCEALMENT:

A. The composition of TFs is concealed from the opponent. When a TF marker is placed on the board, the naval units, including carrier-based naval air units, but not transporting, invading or redeploying ground or air units, are removed from the board and placed on the owning player's Naval Status Chart, hidden from the opposing player.

B. TF markers may be used at the start of a game to conceal the initial placement of naval units.

C. The transfer of naval units between TFs must be announced to the opponent unless both TFs are based in the same port or mapboard box. The type and identity of transferred naval units must also be revealed unless they are concealed by a new TF marker. Naval units may not be transferred between TFs at sea (EXCEPTION: an unencumbered TF may strengthen an encumbered TF during combat group formation - 22.421A).

D. If part of a TF intercepts a naval activity, at least one portion of the TF must be revealed unless another TF marker is available and both portions may be constituted as a new TF.

E. A TF may not merge with other naval forces while carrying out a naval activity, even if the TF and the other naval forces are carrying out the same naval activity and the TF passes through a port containing the other naval forces or enters the same hex as the other naval forces while both are en route to or in the activity hex. However, naval forces consisting of less than ten naval factors of the same alliance faction which engage in the same naval

activity must, if legally able to do so (20.162), combine into a TF if one naval force passes through a port containing the other or if they enter the same hex en route to or in their activity hex and, in so doing, create a naval force consisting of ten or more naval factors (21.312).

F. The placement of newly constructed naval units must be revealed to the opponent before a TF marker is placed on the board to conceal them.

20.165 Naval units in an SW box which undertake specific tasks, such as protecting a sea supply line or a sea escort, must break into separate TFs or reveal their strength to the opponent.

20.166 Subject to port capacity restrictions, two or more TFs may base in the same port.

20.167 WESTERN ALLIED NAVAL STRENGTH IN EACH THEATER: Despite the use of TF counters to conceal naval units, the Western Allies must reveal to their opponents, on request, the number and types of naval units available for use in each theater. This reflects the ability of Axis intelligence to determine the general allocation of Western Allied naval resources, although not their specific location.

This is a rare instance where the game relies on the common sense of players to avoid abuse. Normally the Axis will be most interested in the disposition of Western Allied destroyers (as this relates to their invasion capabilities) and fast carriers. The Axis player is not entitled to a detailed census every turn, nor should the Allied player stand on ceremony and insist on a specific request from the Axis player every turn.

20.17 RANGE: Naval operations are subject to various range restrictions as set out in 21.36. Naval interception depends on a dice roll (22.21).

20.18 PERMITTED ACTIVITIES: The activities each type of naval unit may perform are set out below. These are summarized in the Naval Activities Table in the player aids.

20.2 FLEETS:

20.21 FLEETS: The term “fleets” refers to destroyers, cruisers and non-carrier capital ships.

20.22 Fleets are subject to the general rules governing naval units.



20.23 DESTROYERS: Destroyers (DDs) are represented by generic units ranging in denomination from one to ten factors.

20.231 OPERATIONS: Destroyers may conduct the following naval operations:

- A. Patrol.
- B. Carry sea supply.
- C. Protect sea supply.
- D. Accompany fast carrier missions.
- E. Carry or protect ground or air units during sea transport.
- F. Carry or protect ground units during seaborne invasion.
- G. Conduct shore bombardment.
- H. Sea escort or protect sea escort.
- I. Intercept enemy naval activities.



20.24 CRUISERS: Cruisers (CAs) are represented by generic units having even-numbered denomination only.

20.241 OPERATIONS: Cruisers may conduct the following naval operations:

- A. Patrol.
- B. Protect sea supply.
- C. Accompany fast carrier missions.
- D. Protect sea transport.
- E. Protect seaborne invasions.
- F. Conduct shore bombardment.
- G. Raid.
- H. Protect sea escort.
- I. Intercept enemy naval activities.

Destroyers or cruisers? Cruisers may not carry units and have no on-board ASW value, but can raid and are more robust in combat.



20.25 CAPITAL SHIPS: Capital ships are represented by named ship counters with values of two, three, four and five factors. Depending on the nationality, these are represented as pocket battleships (PBs), battlecruisers (BCs) or battleships (BBs).

20.251 OPERATIONS: Capital ships may conduct the following naval operations:

- A. Patrol.
- B. Protect sea supply.
- C. Accompany fast carrier missions.
- D. Protect sea transport.
- E. Protect seaborne invasions.
- F. Conduct shore bombardment.
- G. Raid.
- H. Protect sea escort.
- I. Intercept enemy naval activities.

20.252 SLOW SHIPS: Slow ships are identified by an orange or purple band across their counter. Slow ships:

- A. May not raid (21.532A).
- B. May not engage undamaged raiders (21.5342, 21.538).
- C. Roll one fewer dice when intercepting or counter-intercepting enemy naval activities (22.221).
- D. May not engage distant combat groups (22.521D).
- E. May not evade fleet combat (22.523B).

20.253 FIVE-FACTOR BATTLESHIPS: Five-factor battleships have an additional +1 Naval Nationality DRM (22.552A). For each five-factor battleship in an attacked naval force, the defender's air defense level is increased by one (23.42).



20.3 FAST CARRIERS:



20.31 FAST CARRIERS: Fast carriers are represented by named ship counters with values of two (CVLs), three (CVs) and four (CVBs) factors. Fast carriers are identified by a yellow band across their counter.

20.32 OPERATIONS: Fast carriers and their naval air units may conduct the following air and naval operations:

- A. Patrol.
- B. Protect sea supply.
- C. Counterair.
- D. Attack naval units and bases.
- E. Protect sea transport.
- F. Protect seaborne invasion.
- G. Protect fleets conducting shore bombardment.
- H. Provide ground support.
- I. Intercept enemy defensive air support.
- J. Raid.
- K. Protect sea escort.
- L. Intercept enemy naval activities.

20.33 FULLY OPERATIONAL FAST CARRIERS: A fast carrier is considered to be “fully operational” if it is undamaged and carrying its full complement of NAS. A fast carrier must be fully operational to modify submarine defense (22.9413) and search (22.451D). A fast carrier need not have its full complement of NAS, or even any NAS, to participate in 20.32 operations, although obviously the functions of an empty fast carrier are limited.

20.34 The construction of fast carriers has no effect on the constructing major power’s naval air force pool or naval air training rate.

20.35 Fast carriers have no effect on SW (25.362).

20.36 CVBs: Four-factor fast carriers (CVBs) have a Fleet Nationality DRM one greater than other Japanese and American fast carriers (22.552A). For each CVB in an attacked naval force, the defender’s air defense level is increased by one (23.42).

20.4 ESCORT CARRIERS (CVEs):

20.41 ESCORT CARRIERS (CVEs): Escort carriers are represented by generic units of various denominations. Escort carriers are identified by a purple band across their counter and are slow ships (20.121B).

20.42 OPERATIONS: CVEs may conduct the following naval operations:

- A. Protect sea supply.
- B. Protect sea transport.
- C. Accompany seaborne invasions.
- D. Accompany shore bombardment missions.
- E. Provide ground support for seaborne invasions.
- F. Protect sea escort.
- G. Intercept enemy naval activities.
- H. Carry out ASW duties in the SW box.

20.43 CVE CONSTRUCTION: Only the U.S. may build CVEs. See 27.7223 for restrictions on CVE construction.

Escort carriers are worth building! They may not raid or patrol, and their air may not counterair or intercept defensive air support. However, they can assist in finding raiders, shift the submarine warfare modifier, may later be withdrawn if no longer needed (unlike ASW) and have an enhanced air defense value.

20.44 ESCORT CARRIER AIR:

20.441 The construction of CVEs is limited by, but does not count against, the naval air training limit (17.353) of the owning major power in the turn in which the CVE is laid down. British CVEs may only be built by the U.S. (27.7223B). The air component of a CVE is not considered to be part of the owning major power’s naval air force pool and is not represented by a unit counter.

20.442 CVEs are limited to providing ground support for seaborne invasions and may perform no other air activities. A CVE must be in an invasion hex to provide ground support. Each CVE factor which provides ground support adds one factor to the ground attack, up to a maximum of one CVE for each invading ground factor (18.553). The defensive value of a CVE’s air component is abstractly represented by each CVE factor being counted as three naval factors when determining their air defense level.

20.443 CVEs which provide ground support for seaborne invasions may be eliminated as a result of ground combat in the same manner as other units.

20.45 CVEs IN FLEET COMBAT: CVEs participate in naval combat by engaging in fleet combat as light ships (22.531B).

20.5 EFFECTS OF ATTACKS ON NAVAL UNITS:

20.51 AIR ATTACK AND FLEET COMBAT TABLES: Air attacks and fleet combat effects against naval units are resolved using the Naval Attack Table. A dice roll of less than two is treated as a two.

Naval Attack Table - 20.51, 22.55, 23.44												
AS	FF	Dice Roll										
		2	3	4	5	6	7	8	9	10	11	12+
	1	0	0	0	0	0	0	1	1	1	1	1
	2	0	0	0	0	0	1	1	1	1	1	2
1	3	0	0	0	0	1	1	1	1	1	2	2
	4	0	0	0	1	1	1	1	1	2	2	3
2	5-6	0	0	1	1	1	1	2	2	2	3	3
3	7-9	1	1	1	1	2	2	2	3	3	3	4
4	10-12	1	1	2	2	2	3	3	3	4	4	5
5	13-15	2	2	2	3	3	3	4	4	5	5	6
6	16-18	2	2	3	3	3	4	4	5	5	6	6
7	19-21	2	3	3	3	4	4	5	5	6	6	7
8	22-24	3	3	3	4	4	5	5	6	6	7	7
9	25	3	3	4	4	5	5	6	6	7	7	8
10		3	4	4	5	5	6	6	7	7	8	8
11		4	4	5	5	6	6	7	7	8	8	9
12		4	5	5	6	6	7	7	8	8	9	9
13		5	5	6	6	7	7	8	8	9	9	10
14		5	6	6	7	7	8	8	9	9	10	10
15		6	6	7	7	8	8	9	9	10	10	11
16		6	7	7	8	8	9	9	10	10	11	11
17		7	7	8	8	9	9	10	10	11	11	12
18		7	8	8	9	9	10	10	11	11	12	12
19		8	8	9	9	10	10	11	11	12	12	13
20		8	9	9	10	10	11	11	12	12	13	13
Modifiers - Air Attacks on Naval Units												
+#	attacker's Air Nationality DRM											
-#	defender's Naval Nationality DRM											
+1	naval air units attacking ships at sea											
+1	if the attacker achieves a surprise level of 3 or greater											
Modifiers - Fleet Attacks on Naval Units												
+/-#	Naval Nationality DRMs (22.552A)											
+/-1	If one of the combat groups involved is carrying out a naval activity which reduces its effectiveness (22.552B)											
If more than 20 air squadrons engage in combat, the result is determined by consulting the "20" row and whatever other row is required to equal the total number of air squadrons engaged.												
Results												
Named ships and cruisers: A named ship or cruiser is damaged if it incurs naval attack effects one less than its size in factors and is sunk if it incurs naval attack effects equal to or greater than its size in factors.												
Cruiser groups: If a group of light ships consisting only of cruisers incurs an odd number of hits, the odd hit damages one cruiser.												
One-factor naval units: If a group of ships consists only of destroyers, CVEs, transports or a combination of the three, each hit sinks a destroyer, CVE, or transport factor.												
Mixed light forces: Naval attack effects incurred by a light force consisting of both cruisers and one-factor naval units are distributed evenly between the cruisers and one-factor naval units, subject to the proviso that the number of one-factor ship factors sunk may not exceed the number of cruiser factors sunk until all the cruisers in the force are sunk (20.551).												

20.511 TREATMENT OF DIFFERENT NAVAL UNITS:

- A. Named ships accumulate hits, are damaged and are sunk as complete units.
- B. Cruisers are damaged and sunk in two-factor increments.
- C. Destroyers, CVEs, submarines and ASW are sunk as individual factors and may not be damaged.
- D. Transports are damaged (during SW only) and sunk as individual factors.



20.52 NAMED SHIPS:

20.521 NAMED SHIPS AT SEA:

20.5211 DAMAGING NAMED SHIPS AT SEA: An undamaged named ship at sea is damaged if it:

- A. Incurs a number of hits equal to one less than its size in factors.
- B. Incurs a critical hit (20.524).
- C. Incurs a hit while providing shore bombardment (21.5282C).

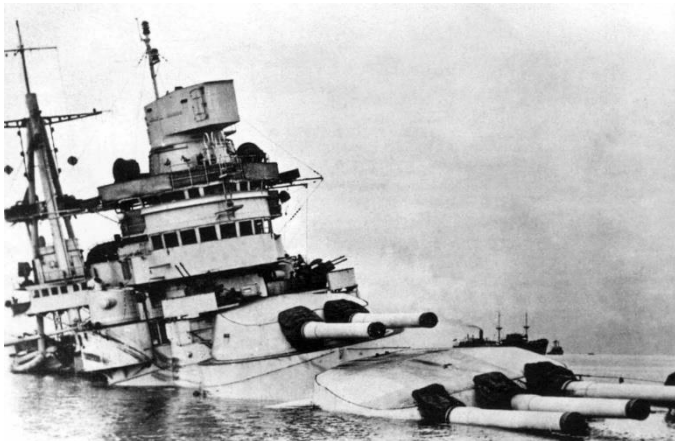
20.5212 EFFECTS OF DAMAGE: The following effects apply to ships damaged at sea:

- A. **CAPITAL SHIPS:** Damaged capital ships may not fire at enemy ships.
- B. **FAST CARRIERS:** Damaged fast carriers may not launch or retrieve naval air units.
- C. **SPEED:** Damaged ships are slow.
- D. **SINKING:** A damaged ship at sea is sunk if it receives one or more additional hits.
- E. **REPAIR:** Damaged heavy ships take one shipbuilding point and two turns to repair (27.721C).
- F. **AIR DEFENSE:** Damaged ships contribute to air defense.

20.5213 SINKING NAMED SHIPS AT SEA: A named ship at sea is sunk if:

- A. An undamaged ship receives a number of hits equal to or greater than its size in factors.
- B. A damaged ship receives one or more additional hits.
- C. A critical hit is incurred by a damaged named ship (20.526B).

20.5214 EFFECTS OF SINKING: Named ships sunk at sea are destroyed and are removed from play.



20.522 NAMED SHIPS IN PORT:

20.5221 DAMAGING NAMED SHIPS IN PORT: An undamaged named ship in port is damaged if it:

- A. Incurs a number of hits equal to one less than its size in factors.
- B. Incurs a critical hit (20.526A).

20.5222 EFFECTS OF DAMAGE: The following effects apply to ships damaged in port:

- A. **SINKING:** A ship damaged in port is sunk if it receives one or more additional hits.
- B. **REPAIR:** Damaged heavy ships take one shipbuilding point and two turns to repair (27.721C).

C. **AIR DEFENSE:** Damaged ships contribute to air defense.

20.5223 SINKING NAMED SHIPS IN PORT: A named ship in port is sunk if:

- A. An undamaged ship receives a number of hits equal to or greater than its size in factors.
- B. A damaged ship receives one or more additional hits.
- C. A critical hit is incurred by a damaged named ship (20.526C).

20.5224 EFFECTS OF SINKING: The following effects apply to ships sunk in port:

- A. **CRITICAL HIT ROLL:** When a named ship in port is sunk, a critical hit roll (20.524) is immediately made for that ship. If a critical hit occurs, the ship is destroyed.
- B. **REPAIR:** One shipbuilding point may be used to raise a ship sunk in port to damaged status (27.7262), after which it may be repaired normally (27.721C).
- C. **AIR DEFENSE:** Ships sunk in port do not contribute to air defense.

20.5225 DESTROYING NAMED SHIPS IN PORT: A named ship in port is destroyed if it is sunk in port and incurs a critical hit (20.526D).

20.5226 EFFECTS OF DESTRUCTION: Named ships destroyed in port are removed from play.

20.523 ACCUMULATED HITS: Hits on named ships accumulate as follows:

A. **SHIPS AT SEA:** Combat effects on named ships at sea accumulate during and between naval combat rounds during naval combat and in and between hexes outside of naval combat, and are only repaired once the ship returns to port.

B. **RAIDERS:** For both raiders and ships that engage them, combat effects on named ships accumulate during the first and second raider engagements (21.5341, 21.538) and carry over from the first engagement to the second.

C. **SHIPS IN PORT:** Combat effects from air and harbor attacks against named ships in port which are insufficient to damage or sink a named ship are repaired immediately and have no effect. A ship that is damaged in port is sunk if it incurs an additional hit; a ship sunk in port is destroyed if it incurs enough additional hits to damage it.

EXAMPLE: The *Nevada*, a three-factor battleship, takes one hit in the first strike of the Japanese attack on Pearl Harbor. This hit is repaired immediately and the *Nevada* will have no hits on her if the Japanese return for a second strike.

20.5231 EFFECTS OF ACCUMULATED HITS:

A. **UNDAMAGED SHIPS:** Accumulated hits short of the number required to damage a named ship do not affect the speed of named ships, do not impair the firepower of capital ships and do not affect the ability of fast carriers to launch or retrieve naval air units.

B. **DAMAGED SHIPS:** Accumulated hits beyond the number required to damage a named ship sink the ship.

20.524 CRITICAL HITS: When the possibility of a critical hit on a named ship arises, one die is rolled. If the modified die roll exceeds the size of the named ship, it incurs a critical hit, with the effects set out in 20.526.

20.5241 WHEN CRITICAL HIT ROLLS ARE MADE: Critical hit rolls are made in the following circumstances:

A. **A NATURAL "12" IS ROLLED:** Whenever a "12" is rolled for an air, fleet combat or submarine attack against a named ship, regardless of modifiers and whether or not the named ship was damaged.

Before there is a chance at a critical hit, double sixes must be rolled. An "11" result with a +1 modifier is insufficient. Negative modifiers to a "12" dice roll are disregarded.

B. SUNK IN PORT: A named ship is sunk while in port (20.5224A).

C. "7+" SURPRISE LEVEL: A named ship is damaged by air attack when a "7+" surprise level is in effect (23.7413).

D. ATOMIC ATTACKS: A named ship is damaged or sunk by an atomic attack (43.435, 43.442).

20.5242 MODIFIERS: If the attacker inflicts more hits on a named ship than needed to sink a ship in port, a +1 modifier is applied to the critical hit die roll for each excess hit.

20.525 MULTIPLE CRITICAL HITS PROHIBITED: A named ship may be subject to a maximum of one critical hit per attack, even if the attack triggers more than one of the conditions in 20.5241.

EXAMPLE: An American battleship sunk in port during Japan's Pearl Harbor raid with a dice roll of "12" is subject to only one critical hit die roll.



20.526 EFFECTS OF CRITICAL HITS: A critical hit has the following effect, in addition to any effect of the combat roll which triggered the critical hit:

- A. An undamaged ship is damaged.
- B. A damaged ship at sea is sunk.
- C. A damaged ship in port is sunk in port.
- D. A ship sunk in port is destroyed.

20.527 EXCESS HITS: Excess hits against named ships beyond what is required to destroy the targeted ship are disregarded.

20.528 NO CRITICAL HITS FOR CRUISERS: Critical hit rolls are never made for cruisers.

20.53 CRUISERS:

20.531 TREATED AS TWO-FACTOR NAMED SHIPS: Each cruiser is treated as a two-factor named ship for the purpose of determining the effects of enemy air and fleet attacks (EXCEPTION: Critical hit rolls are never made for cruisers).

20.532 FORCES CONSISTING ONLY OF CRUISERS: Every two hits sinks a two-factor cruiser. If an odd number of hits is incurred, an additional cruiser is damaged. An odd hit sinks a damaged cruiser only if the naval force in question contains no undamaged cruisers.

20.533 DAMAGE: A two-factor cruiser unit is damaged if it incurs one hit. A damaged cruiser which is damaged again is sunk.

20.54 LIGHT SHIPS:

20.541 TREATED AS SINGLE FACTORS: Destroyers, CVEs, ASW, submarines and transports are sunk as single factors.

20.55 COMBINED LIGHT FORCES:

20.551 CRUISERS AND ONE-FACTOR NAVAL UNITS: Naval attack effects incurred by a light force consisting of both cruisers and one-factor naval units are distributed evenly between the cruisers and one-factor naval units, subject to the proviso that the number of one-factor ship factors sunk may not exceed the number of cruiser factors sunk until all the cruisers in the force are sunk. Thus one hit damages a cruiser; two hits sink a cruiser; three hits sink a cruiser and a one-factor naval unit; four hits sink a cruiser and two one-factor naval units; five hits sink a cruiser and two one-factor naval units and damage a cruiser; six hits sink two cruisers and two one-factor naval

units; on so on. If a light force contains undamaged and damaged cruisers, as well as one-factor naval units, naval attack effects applied to the cruisers are first applied to the undamaged cruisers.

In a mixed force, a cruiser is always damaged by the first, fifth, ninth, etc. hit, provided there is still a cruiser to be damaged.

20.552 DIFFERENT TYPES OF ONE-FACTOR NAVAL UNITS: Naval attack effects against different types of one-factor naval units are apportioned between the different types of one-factor naval units as per 20.57.

20.56 EXCESS HITS: If naval attack effects against a force containing cruisers and one-factor naval units exceed the number of defending naval factors, the excess damage is ignored (EXCEPTION: If light ships protecting a sea supply line are all sunk, any excess damage may disrupt the sea supply line - 30.381).

20.57 LOSSES FROM MIXED FORCES: Naval losses from a force of mixed types, such as different nationalities, must be distributed equally among the types involved, with any remnant loss which cannot be divided equally being taken by the type having the most factors involved. If an equal number of factors were involved, the remnant is taken from the type with the lower Naval Nationality DRM. If the number of factors present and the Naval Nationality DRMs are equal, the owner chooses.

20.58 ATTACKS ON DESTROYERS AND TRANSPORTS CARRYING CARGO: Destroyers and transports which are carrying ground units, air units, oil or BRPs during sea transport, seaborne invasion or sea escort may be eliminated by enemy combat results as follows:

A. FLEET COMBAT: Destroyers and transports carrying cargo are automatically screened, and may only be fired upon if all screening ships in their naval force or combat group are eliminated (EXCEPTION: Undamaged cruisers that are damaged by heavy fire are screened and need not be sunk in order to attack screened naval units - 22.54C). Screened light ships are attacked as a group and take losses according to 20.57.

B. AIR AND SUBMARINE ATTACKS: Destroyers and transports carrying cargo may not be screened against air or submarine attacks. They, along with all other light ships in their naval force or combat group, are attacked as a group and take losses according to 20.57.

20.59 EFFECT OF ATTACKS ON CARGO: If, as a result of enemy air, fleet or submarine attack, the number of surviving undamaged destroyers or transports drops below that required to carry a ground or air unit, that unit is eliminated. Where several units are being carried, the defender chooses which ground or air unit(s) to eliminate. Ground or air units may not be eliminated unnecessarily, although the defender may eliminate more factors than required in order to preserve other units of a different type. Similarly, the interception of a BRP grant or oil shipment may result in the loss of some or all of the BRPs or oil counters if the number of surviving transports drops below the required level.

20.6 TRANSPORTS:



20.61 FORCE POOLS: The shipping capacities of the Western Allies and Japan are represented abstractly by the number of transports in their force pools. Britain and the U.S. share a single Western Allied transport force pool.

20.62 CONSTRUCTION AND REDEPLOYMENT:

20.621 CONSTRUCTION: Each transport costs one shipbuilding point and three BRPs to construct.

A. Newly constructed Western Allied transports must first be placed in SW boxes which contain fewer transports than their minimum initial levels (20.631); surplus transports may then be placed in any of the three SW boxes. Transports may not remain in port. The minimum transport levels are:

- **Atlantic:** 15 Western Allied transports.
- **Indian Ocean:** 5 Western Allied transports.
- **Pacific:** 10 Western Allied transports.

B. American shipbuilding capacity may be used to construct Western Allied transports prior to American entry into the war against Germany (27.7322).

C. Transports may not be used in the game turn in which they are built.

20.622 REDEPLOYMENT: After use, Western Allied transports may be redeployed from one location to another during the redeployment phase.

A. Only transports in excess of a location's initial level may be redeployed, and a redeployment may not reduce the number of transports in a location

below its initial level. A player may not voluntarily eliminate transports in order to rebuild them elsewhere.

B. Transports may be redeployed in the turn they are constructed. Transports that are used and then redeployed may be used in their new location in the following player turn. Transports may only be used in the location in which they began the turn.

C. Transports may not redeploy from an SW box to a port or mapboard box to avoid enemy SW combat in the following turn. All built Western Allied transports must be in one of the three SW boxes at the end of the Allied player turn; all Japanese transports must be in the Pacific SW box at the end of the Japanese player turn.

20.63 LOCATIONS: Transports may not base in ports except after being damaged by enemy SW combat (20.66), and newly constructed transports are not placed on mapboard hexes like other units. Western Allied transports are placed in the Atlantic, Pacific and Indian Ocean SW boxes; Japanese transports are placed in the Pacific SW box. Transports may not base in ports in order to avoid enemy activity in an SW box and only function if they are in an SW box at the start of their player turn.

Transports are versatile, but whenever they operate they are exposed to enemy attack. Damaged transports used as permitted by 20.636B are also at risk of being sunk if intercepted by Axis air or naval units.

20.631 INITIAL LEVELS: The initial number of transports are:

A. ATLANTIC: 15 Western Allied transports.

B. INDIAN OCEAN: 5 Western Allied transports.

C. PACIFIC: 10 Western Allied transports.

D. AT LARGE: 4 or 5 Western Allied transports, as set out in transition rule 6.49B, to be initially allocated to the Atlantic or Indian Oceans as desired.

E. UNBUILT: 4, 5, 6 or 7 Western Allied transports, as set out in transition rule 6.49B.

Classic A World at War

In classic A World at War, the Western Allies achieved a *Gathering Storm* transport result and start with 15 Atlantic, 5 Indian Ocean, 10 Pacific, 5 at large and 5 unbuilt transports.

For the sake of convenience, all Western Allied transports are listed on the British force record sheets.

F. PACIFIC (JAPAN): 19 Japanese transports. The number of Japanese transports is increased by Japanese *Storm Over Asia* transport research (*Storm Over Asia* transition rule 6.412):

- Three steps of Japanese *Storm Over Asia* transport research generate one additional unbuilt Japanese transport (19 built and one unbuilt transports).
- A Japanese *Storm Over Asia* transport result builds the additional Japanese transport (20 built transports).
- Nine steps of Japanese *Storm Over Asia* transport research generate a second additional unbuilt transport (20 built and one unbuilt transports).
- A second Japanese *Storm Over Asia* transport result builds the second additional transport (21 built transports).
- 15 steps of Japanese *Storm Over Asia* transport research add a built transport (22 built transports).
- 18 steps of *Storm Over Asia* transport research add an additional transport (23 transports) and allow one Japanese heavy shipbuilding point to be used for transport construction.

Classic A World at War

In classic A World at War, Japan achieved a *Storm Over Asia* transport result and starts with 20 built transports.

G. ADDITIONAL TRANSPORTS:

- **Production:** Additional transports may be produced at the indicated dates (41.31D, 42.23C):
 - **Western Allies:** 1941.
 - **Japan:** 1943.

- **Additional American transports:**

- 15 steps of *Gathering Storm* transport research adds one built transport, available for immediate use when the U.S. and Germany go to war (transition rule 6.49B).
- 18 steps of *Gathering Storm* transport research adds a second built transport, available for immediate use when the U.S. and Germany go to war (transition rule 6.49B).

20.632 OPTIMAL LEVELS:

A. ATLANTIC AND INDIAN OCEAN (Western Allies): 30 Western Allied transports total.

B. PACIFIC (Western Allies): 10 Western Allied transports.

C. PACIFIC (Japan): 15 Japanese transports.

20.633 PENALTIES FOR DROPPING BELOW OPTIMAL LEVELS:

A penalty of one BRP is incurred each turn for each transport below the optimal transport levels in each SW box, subject to the qualifications set out in 20.634:

A. ATLANTIC AND INDIAN OCEAN (Western Allies): BRP penalties for Atlantic and Indian Ocean transport shortages are incurred by Britain (EXCEPTION: BRP penalties for Atlantic and Indian Ocean transport shortages are incurred by the U.S. if Axis control of all ports in Britain and Ulster prevents American BRP grants to Britain).

B. PACIFIC (Western Allies): BRP penalties for Pacific transport shortages are incurred by the U.S.

C. PACIFIC (Japan): If Japan does not trace a sea supply line from Japan to a port in French Indochina, Thailand or Singapore once it is at war with Britain, it loses 15 BRPs, regardless of the number of Japanese transports in the Pacific SW box.

20.634 QUALIFICATIONS:

A. The number of undamaged transports in each SW box is determined at the start of the affected major power's player turn. Damaged transports which were forced to leave an SW box by enemy action (24.631A) are not counted towards the optimal transport level.

B. The BRP penalty for a single turn may not exceed the optimal transport level for the SW box in question.

C. There is no BRP penalty for Atlantic and Indian Ocean transport shortages if Britain has surrendered and is not at war with Germany.

D. Transports counted toward optimal levels may also be used for other purposes.

20.635 EFFECT ON BRITISH AND JAPANESE CONSTRUCTION LIMITS: BRP losses from transport shortages reduce the British and Japanese construction limits (27.331).

20.636 AVAILABLE TRANSPORTS: Once enemy SW combat has been resolved, the number of transports that may be used in an SW box is the greater of:

A. The number of undamaged transports in the SW box; or

B. One surviving (undamaged or damaged) transport for every five transports in the SW box at end of the moving player's previous player turn (round up); 1-5 transports: one available transport; 6-10 transports: two available transports; 11-15 transports: three available transports; and so on. The number of transports that may be so used is limited to the number of transports damaged in the relevant SW box by SW combat in the previous opposing player turn.

EXAMPLE: At the end of their Summer 1941 player turn, the Western Allies have 16 transports in the Atlantic SW box. The Western Allies will be able to use at least four Atlantic transports in their Fall 1941 player turn. The Western Allies will be able to use more than four transports in their Fall 1941 player turn if Germany sinks and damages fewer than 12 transports during the Axis Fall 1941 player turn.

20.64 FUNCTIONS: Each available transport (20.636) may be used once per turn for one of the following naval activities:

A. OIL SHIPMENTS: To ship Western Allied or Japanese oil (33.43B). One transport is required for each oil counter shipped. Transports assigned to carry oil may not be used for any other purpose, but a transport may be used to ship one or more partial oil counters (33.81) instead of a full oil counter, in order to conserve oil. The number of transports which may be assigned to carry oil each turn is limited by the number of transports available in the Atlantic, Pacific and Indian Ocean SW boxes, as the case may be: 1 transport: 1 oil counter; 3 transports: 2 oil counters, 5 transports: 3 oil counters; 7 transports: 4 oil counters; and so on. See 33.4523 and 33.473.

B. SEA SUPPLY FROM MAPBOARD BOXES: Western Allied transports must be used to provide sea supply from mapboard boxes (30.331C). Each such sea supply line requires one transport.

C. SEA TRANSPORT, INVASIONS OR Nring UNITS TO AND FROM MAPBOARD BOXES: One transport is required for every five ground or air factors which sea transport to or from a mapboard box (21.434), invade from a mapboard box (ground units only; 21.513) or are NRed using transports as sea escort (21.64). Ground and air units may be carried in any combination, but the ground units may not be split between two transports: a transport could carry a 3-4 infantry unit, a replacement and an army air factor, or two 2-5 armor units and three naval air squadrons, but two transports could not be used to carry three 3-4 infantry units.

D. BRP GRANTS BY SEA: To ship BRPs. One transport is required for every five BRPs shipped. Transports assigned to carry BRPs may not be used for any other purpose, but a transport may be used to ship less than five BRPs. BRP grants require transports in each SW box (Atlantic, Pacific, Indian Ocean) through which the grant passes (40.22).

20.65 TRANSPORT PROTECTION: Naval units in an SW box may be assigned to protect transports in that SW box which carry out any of the activities set out in 20.64A-D. If different transports are engaged in the same activity, as would occur when two supply lines are traced from a mapboard box, each naval unit may protect only one transport and is assigned to this function before any enemy attempts to disrupt the activities are made. Otherwise, naval units in an SW box may protect as many different 20.64A-D and 30.361D-F functions as desired in the same turn.

20.66 DAMAGED TRANSPORTS: Once all submarine and raider activity has been resolved, damaged transports leave their SW box and return to port without risk of interception, where they are immediately repaired at no BRP cost. Such transports remain inverted for the remainder of the enemy player turn and the owning major power's ensuing player turn, and may not carry out any function until the player turn after they are redeployed from port to a SW box.

EXAMPLE: During the Spring 1941 Axis player turn, four Western Allied Atlantic transports are damaged in SW combat. These transports return to port and are immediately repaired at no BRP or shipbuilding cost. These transports may return to the Atlantic SW box during the redeployment phase of the Spring 1941 Allied player turn for use in the Summer 1941 Allied player turn, although they would again be exposed to German submarines and raiders during the Axis Summer 1941 player turn.

20.7 SUBMARINES:



20.71 BASING: Each submarine is equivalent to one fleet factor for basing purposes. In addition to basing at ports or in mapboard boxes:

A. German submarines may operate in the Atlantic SW box.

B. German submarines may operate in the Indian Ocean SW box if the Axis control the Suez canal and Ethiopia.

C. Japanese submarines may operate in the Pacific SW box if Japan and the United States are at war.

D. Japanese submarines may operate in the Indian Ocean SW box if Japan and Britain are at war.

E. American submarines may operate in the Pacific SW box if Japan and the United States are at war.

20.72 Italian and British submarines may not operate in SW boxes. British submarines may not operate in the Pacific theater unless Italy has surrendered.

20.73 TRANSFERS BETWEEN SW BOXES: Submarines may be transferred from one SW box to another during the redeployment phase without impairing the ability of the submarines to conduct submarine warfare in the next player turn.

20.74 RANGE: Submarines based on the board are subject to the same range restrictions and intercept enemy naval missions in the same manner as naval units.

20.75 OPERATIONS: Submarines based on the board may accompany fleets or carriers on any operation or may independently intercept enemy naval activities (22.915). Submarines operating in an SW box may only conduct strategic warfare against enemy transports (25).

20.76 CONSTRUCTION: Each submarine costs three BRPs and one shipbuilding point to build.

20.77 AIR ATTACKS AGAINST SUBMARINES: Submarines may not be attacked by air units while in port or at sea unless they remain in their patrol hex during the opposing player turn (21.4184C). Air units assist in defending against submarine attacks (22.9413).

20.78 ADVANCED SUBMARINES: Advanced submarines are identical to conventional submarines, with the following exceptions:

A. PRODUCTION: Advanced submarines may only be built by Germany and Japan:

- An 18-step advanced submarine result in *Gathering Storm* or *Storm Over Asia* gives Germany or Japan a prototype advanced submarine in 1942.
- Advanced submarines may only be produced by Germany or Japan after a "9" research result for advanced submarines has been achieved by the European Axis or Japan (42.23A).

B. SW COMBAT: For SW combat involving German advanced submarines, see 25.73.

C. ON-BOARD ATTACKS: Advanced submarines always make on-board attacks at a net +1 modifier (22.941).

D. HARBOR ATTACKS: Advanced submarines always make harbor attacks at a net +1 modifier.

E. ATOMIC ATTACKS: Advanced submarines may carry atomic weapons.

F. LOSSES: Advanced submarines are a distinct type of naval unit and incur losses in accordance with 20.57.

20.8 ASW:



20.81 BASING: ASW may base in SW boxes, ports or mapboard boxes. ASW may be transferred from one SW box to another during the redeployment phase without impairing the ability of the ASW to oppose submarine warfare in the next enemy player turn.

20.82 RANGE: ASW may engage in SW combat only with submarines in their SW box.

20.83 OPERATIONS: The only operation which may be carried out by ASW is to oppose enemy submarines in their SW box (25) and modify submarine attacks (22.9415).

20.84 CONSTRUCTION: Each ASW costs three BRPs and one shipbuilding point to build.

20.85 FORCE POOLS: Britain and the U.S. share a single Western Allied ASW force pool.

20.9 PARTIAL NAVAL COUNTERS:

20.91 Destroyer, CVE, ASW, submarine and transport counters may be broken down into smaller counters of the same nationality at any time during play, including during an opponent's player turn. Similarly, smaller counters may be recombined into larger ones at any time. Cruisers are treated in the same manner, using even-numbered denominations only. Named capital ships and fast carriers represent specific ships and may not be broken down or combined.

20.92 Both sides may begin a scenario with their naval units broken down into partial naval counters if otherwise allowed.

20.93 Although a player may have as many partial naval counters in play as desired, cruiser, destroyer, CVE, ASW, submarine and transport counters in the same hex must be combined at the end of their owner's player turn if the opposing player finds the unnecessary partial naval counters distracting.