



# *Europa Naval Rules*

## *by Daniel T Shaw*

This document strives to provide a set of Naval Rules consistent with the *Europa* Series wargames. The counters can be drawn from or generated using the methodology set out for the “*Scorched Earth Naval System*” by Arthur E. Goodwin in *The Europa Magazine* #54. The idea of naval missions comes from the article “*Integrate the Naval Phase*” by Deen T. Moon in *The Europa Magazine* #77. “*The Damned Die Hard*” rules provided a solid starting point, although I did away with five movement steps and sea zones, returning rather to the traditional *Europa* 16-mile hex. The intent is that these rules would work effectively if bolted onto any *Europa* game, even the old classics like “*Drang nach Osten*” or “*Scorched Earth*”.

The interception, combat and maneuver systems are my own innovations, for which I claim copyrights.

My intent is to have players expend about as much time and effort on the navies as the land war, or the air war, since each of the three should be of similar importance.

Given the above objectives, much of the content is unchanged from recent *Europa* games. Since GDW placed the *Wavell's War* rules as freely available on the internet, I do not intend any copyright infringement by incorporating text from that rule book and small extracts from other *Europa* games. I am grateful to all the authors of those games for creating the *Europa* system which I, like so many other gamers, love.

*Storm over Scandinavia* is the most obvious candidate for integrating these rules with the land and air battles. I have also created a *Vassal* module to do that with a map extending from northern Europe into the eastern Atlantic.

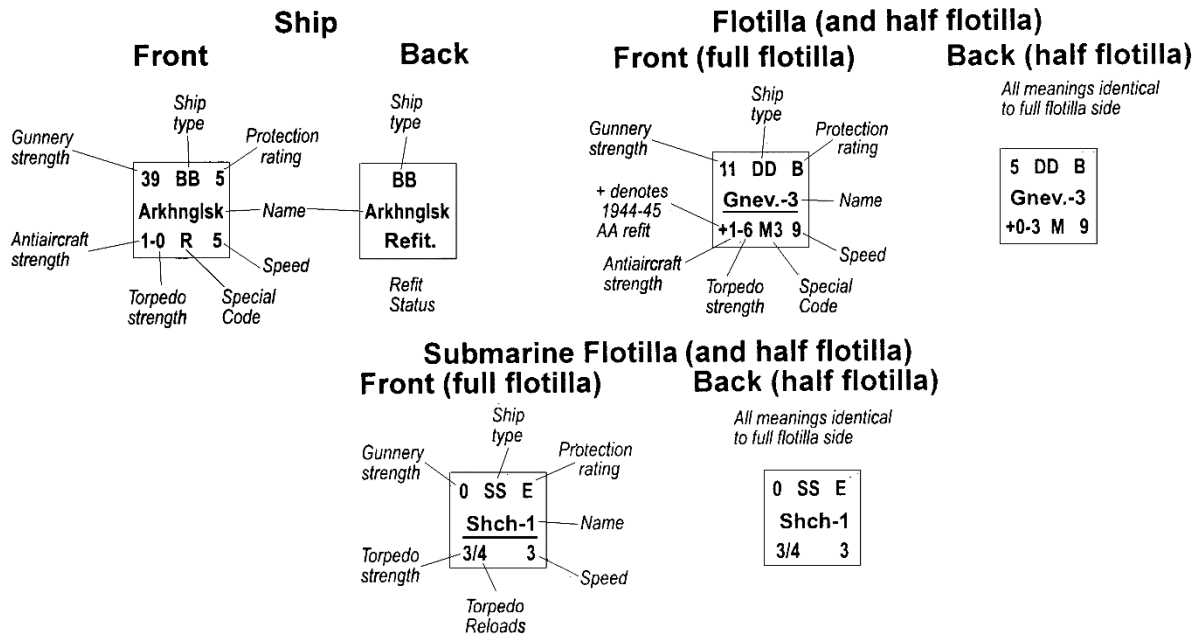
As is often the case with *Europa* rules, for clarity, they are rather lengthy, but I trust you will find they play easily.

## Rule 27 Naval Rules

### 27A. Naval Units.

Naval units are illustrated on the naval unit identification chart.

### Naval Unit Identification Chart



### 27A1. Types and Categories.

Naval units are labeled as to type. The various types are further grouped into categories:

NAVAL UNIT TYPE CHART	5. Small Craft Category
<b>1. Carrier Category</b>	TB Torpedo Boat
V Fleet Carrier	FF Frigate
VE Escort Carrier	MW Mine Warfare
VL Light Carrier	MM Minelayer
VS Seaplane Carrier	MS Minesweeper
<b>2. Battleship Category</b>	RF River Flotilla *
B Obsolete Battleship	GB Gunboat *
BB Battleship	PT Patrol Torpedo Boat (or Motor Torpedo Boat) *
BC Battlecruiser	PC Patrol Craft or Submarine Chaser *
BD Coastal defense Battleship	<b>6. Transport Category</b>
BP Pocket Battleship	NT Naval Transport
<b>3. Cruiser Category</b>	TA Transport Attack
CA Heavy Cruiser	TR Transport General Purpose
CB Large Cruiser	TS Transport Supply
CC Coastal defense Cruiser	TO Transport Oiler
CD Heavy Destroyer	TT Troopship
CL Light Cruiser	TL Liner (Large Troopship)
CM Merchant Cruiser	AO Resupply Ship
<b>4. Destroyer Category</b>	<b>6.1 Landing Category</b>
DA Anti-aircraft Cruiser	LC Landing Craft *
DC Obsolete Light Cruiser	LB Landing Barge *
DD Destroyer	LS Landing Ship
DE Destroyer Escort	<b>X. Submarine Category</b>
DG Gunboat Destroyer	SC Coastal Submarine
DM Mine Warfare Destroyer	SS Sea-going Submarine
DP Patrol Destroyer	SO Ocean-going Submarine
DT Heavy Torpedo Boat	SA Resupply Submarine

\* denotes coastal craft

The landing category is a sub-category of the transport category.

Unless otherwise noted in the rules, rules about 'carrier', 'battleship', 'cruiser', 'destroyer', 'small craft', 'transport', 'landing', and 'submarine', pertain to all naval unit types within their respective categories. Example: a rule describing the abilities of transports applies to all transport types, including landing types.

The categories are numbered in the category sequence which is used in some rules. The submarine category is separate and not in the category sequence. Do not treat the landing category as separate in this sequence, rather treat them as in the transport category for the sequence.

### **27A2. Naval Unit Codes.**

Naval units may have one or more codes, as follows:

- A – Anti-Submarine (ASW) ability
- B – Ice breaker.
- C – May base and land Code C air units, and may base but not land Code F air units.
- F – May base but not land Code F air units.
- S – May base and land code S air units.
- E – May carry embarked cargo.
- M – May carry and lay mine points.
- R – Equipped with radar.

Codes with numbers denote multiples of special capabilities of naval units. Example: A naval unit with code M may carry and lay 1 point of mines, while a naval unit with code M6 may carry and lay up to 6 points of mines.

### **27A3. Capital Ships, Destroyers, and Flotillas.**

Some rules make a distinction as to whether a naval unit is a capital ship, destroyer, or a flotilla. Carriers, battleships, and cruisers are capital ships, Destroyers are a separate class. All other naval units are flotillas or individual ships. Note: All capital ships have 'refit' printed on the backs of their counters; while the back sides of destroyer and flotilla counters are either blank or show reduced strength ratings.

A destroyer counter with two sides at the reduced strength is a single destroyer and at full strength is two destroyers (a double destroyer unit).

Double destroyer or full strength flotilla counters have their names underlined on the unit counter.

### **27A4. Naval Unit Damage.**

Each naval combat or bombing hit on a naval unit does one hit of damage to the naval unit.

A double destroyer or full-strength flotilla unit that receives a hit of damage is reduced (flipped) to its half-strength side: If it has no half strength side, it is sunk instead. A single destroyer or half-strength flotilla unit that receives a hit of damage is sunk.

A capital ship with damage equal to one half or more of its protection rating has its gunnery strength, AA strength, torpedo strength, and speed rating halved. Example: a naval unit with a protection rating of 3 would have its ratings affected when it had 2 hits of damage on it.

When a capital ship takes hits at least equal to its protection rating, it is sunk.

Use hit markers to denote damage to capital ships.

Skuttling is the act of sinking your own naval unit and is possible at-sea at any time at the owner's discretion. Other rules deal with skuttling in-port.

When a naval unit is sunk or scuttled, place it in the eliminated naval unit box on the owning player's game chart.

### **27A5. Naval Groups.**

A naval group consists of one or more friendly naval units moving together.

A naval group will either be in-port or at-sea. A naval group may be in-port when in the hex of a friendly-owned port (of any size). Note that a naval group can be at-sea in a port hex (or anchorage hex).

A naval group will either be in-port, or at-sea in a sea hex.

There are four types of naval groups:

- A combat naval group consists only of warships: carriers, battleships, cruisers, destroyers, and/or small craft.
- A cargo naval group consists only of transports.
- A mixed naval group consists of any combination of warships and transports.
- A submarine naval group consists only of submarines.

Note: Players use naval group markers to show the presence of their naval groups. Place a naval group marker in the hex, as appropriate: Place the naval units there in the corresponding box on the Naval Group Marker Display. For all game purposes, the naval units are treated as being in the hex occupied by naval group marker (or the oriented adjacent hexes for escorts).

Submarines may never be in a naval group with surface naval units.

**27A6. Known Naval Groups**

Some rules make a distinction as to whether or not a naval group is known or unknown. A naval group is known to the enemy player if any of the following conditions apply to it, otherwise it is unknown:

- If the naval group is in port.
- If the naval group has not moved from the hex from which it provided naval gunfire support in the immediately preceding combat phase.
- If the naval group has not moved from the hex from which it engaged coast defenses in naval combat during the current phase.

Note that being in naval combat, or being detected by a naval patrol, does not make a naval group known.

**27A7. Naval Unit Stacking.**

There is no limit on the number of naval units or naval groups that may stack at-sea in a hex or in a port.

**27A8. Naval Combat Zones.**

Battleships have a naval combat zone that extends out two hexes from their location.

Cruisers have a naval combat zone that extends out one hex from their location.

All other naval units have a combat zone of the hex they occupy only.

The naval combat zone includes the hex the naval unit occupies, so long as the unit is at-sea.

Naval units in-port do not have a naval combat zone.

**27A9. Sea Weather**

When rolling for weather, the calm conditions maybe with or without fog. Even number die rolls (after any modifications) result in fog, while odd numbers result in clear weather.

Naval Weather Chart																			
	Modified	Sep	Sep	Oct	Oct	Nov	Nov	Dec	Dec	Jan I to	Feb	Mar	Mar	Apr	Apr	May	May	Jun	Jul II
	Die	I	II	I	II	I	II	I	II	Feb I	II	I	II	I	II	I	II	I	to Aug II
Sea Conditions	1	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
	2	CF	CF	CF	CF	CF	R	R	R	R	R	R	CF	CF	CF	CF	CF	CF	CF
	3	CC	CC	CC	CC	R	R	R	R	R	R	R	CC	CC	CC	CC	CC	CC	CC
	4	CF	CF	CF	R	R	R	R	R	R	R	R	R	R	CF	CF	CF	CF	CF
	5	CC	CC	R	R	R	R	S	S	S	S	R	R	R	R	CC	CC	CC	CC
	6	R	R	R	R	S	S	S	S	S	S	S	S	R	R	R	R	R	R
	7	R	R	S	S	S	S	S	S	S	S	S	S	S	S	R	R	R	R
	8	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S

+2 for Arctic and Atlantic

CC = Calm clear, CF = Calm fog, R = Rough, S = Stormy

**27A10. Naval Ranges.**

**27A10a. Identification**

This is the range to which naval groups close when intercepting (see later rules). Depending on the weather conditions it is 2 hexes for calm clear and for rough, 1 hex for storm, and same hex for calm fog.

Submarines can only be identified and identify other naval units in the same hex in calm fog, otherwise the identification range for submarines is always 1 hex.

**27A10b. Observing**

Having identified an enemy, naval units may continue to observe at a range, depending on the weather conditions, of 3 hexes for calm clear and for rough, and 2 hex for storm and 1 hex for calm fog.

Submarines can only be observed and observe other naval units a 1 hex range in all weather conditions.

A naval unit that has not been within identification range is not observed.

Observing is sufficient for firing in naval combat, and permits reaction maneuvers.

**27A10c. Following**

In calm fog weather conditions, following exactly along the path taken by the enemy allows observing at 2 hexes.

**27A10d. Radar**

Naval units with radar can observe surface naval units up to 3 hexes in all weather conditions.

**27A10e. Sonar and Acoustic Detection**

Code A naval units and all submarines have either sonar or acoustic detection instruments, which can observe naval units (surface and submarine) up to 1 hex in all weather conditions.

**27A11. Friendly Coastal Hex**

A coastal hex is friendly if all the land in the hex is friendly owned.

Transport naval groups (only) in a friendly coastal hex have their movement screened from the enemy.

A transport naval group in a friendly coastal hex cannot be:

- Subject to Sea Interception, Sea Patrol, or Raiding missions.
- Targeted during naval combat, neither gunnery nor torpedo attacks.
- Subject to attack by air units.











The presence of a friendly combat naval unit in a coastal hex prevents friendly coastal hex benefits.

### 27A12. Ports.

There are five types of ports: marginal, minor, standard, major, and great.

#### 27A12a. Port Capacity.

Each type of port has an RE capacity, which is the number of REs of cargo that may embark/disembark at the port in a player turn. The capacities of ports are listed on the Port Table.

Port Table				
Port	Europa Standard Symbol	Total War Symbol	Port Capacity	Maximum number of hits
Great			24	26
Major			12	14
Standard			6	8
Minor			3	5
Marginal	Not applicable		1	3
Anchorage	Not applicable		0	None

#### 27A12b. Port Capture

A player may use a port immediately after one of the following applies:

- owned it at the start of the friendly initial phase.
- captured it through an unopposed landing during a surprise turn.
- captured it as a specific objective during a landing or air borne attack during the movement phase.

#### 27A12c. Port Damage

Ports may be damaged due to bombing, naval bombardment, or demolition. Each hit of damage on a port reduces its capacity by 1 RE. Each type of port may take a maximum number of hits of damage, as listed on the Port Table.

#### 27A12d. Port Functioning.

A port is functioning unless:

- it has maximum damage or
- an enemy combat or mixed naval group is at-sea with its combat zone including the port hex.

#### 27A12e. Neutral Ports

Any port owned by a nation that is not at war is a neutral port. Naval units may enter neutral ports, where they may not be attacked (unless the neutral becomes an enemy). The position of the naval units in a neutral port is known, and its location is known while it is in hexes within two hexes of the neutral country when it departs. It may be subject to interception by air or sea as soon as it enters the first all sea hex, or a coastal hex of a country at war. If a naval unit in a neutral port at the start of a friendly player turn is still in a port of the same neutral nation at the end of the friendly player turn, the naval unit is interned and may not be used by any player unless the neutral country enters the war. Then it may be used, after a refit, by the side that the neutral country joins.

We know the Altmark was attacked in neutral Norwegian waters, so for this rule we treat the coastal hex (4219) that is two hexes south of Egersund as a full sea hex.

#### 27A12f. Artificial Harbor.

Any port marked with an artificial harbor symbol is enclosed by an artificial breakwater or is connected to the sea by a system of locks. Each hit of damage on a port with an artificial harbor reduces its capacity by 2 REs, not 1.

#### 27A12g. Base-Forces and Ports.

Base-force ground units have the ability to augment port capacity.

Base-force ground units have two modes: mobile and port augmentation. A base-force is in mobile mode when its mobile side (the side with a movement rating greater than 0) is face up. A base-force is in-port

augmentation mode when its static side (the side with a movement rating of 0) is face up. Players may flip their base-forces between these two modes during any friendly initial phases so long as the base-force is in a hex containing a friendly-owned port (or anchorage). A base-force in-port augmentation mode increases the capacity, and ability to take damage, of the port (or anchorage) in the base-force's hex by 3 REs. Example: an anchorage (normal port capacity of 0) with a base-force in-port augmentation mode would have a port capacity of 3 REs and would be able to take a maximum of 3 REs of damage.

### **27A13. Anchorages**

Anchorages are at-sea locations where naval units may replenish from another vessel in any weather.

Anchorages are defined in order of battle, scenarios, and some are marked on the maps.

A naval unit is never in-port at an anchorage.

Anchorages cannot be damaged.

Many anchorages meet the requirements of being a beach, but that is not necessarily the case.

### **27A14. Sheltered Water**

Any sea hex where the nearest full sea hex is at least three hexes away is a sheltered water hex and may be used as an anchorage. A sheltered water hex may be a full sea hex, may contain a port, and may also be a beach hex.

### **27A15. Beaches.**

A coastal hex of any terrain type except coastal cliffs, mountain, mountain jungle, or prohibited terrain is a beach.

Mountain troops and commandoes making amphibious landings may treat a coastal hex of terrain type mountain or coastal cliffs as beach.

A beach has an unlimited capacity of REs of cargo that may embark disembark there in a player turn. Some hexes contain a port and a beach, both of which may be used.

Various naval transport and amphibious landing rules make a distinction based upon which player owns a beach hex. When ground units gain ownership of an enemy hex containing a beach, the beach itself is not friendly-owned for purposes of naval transport or amphibious landings during the phase of its capture. It is friendly-owned starting with the phase following the phase in which it was captured. Example: if units capture an enemy beach during the movement phase, it is friendly-owned for purposes of naval transport or amphibious landing starting with the combat phase.

### **27A16. Sea Ice.**

Sea ice is shown on the maps as a lighter shade of blue. It forms when the weather zone has the first Snow weather. That means sea ice in weather zone C may fail to form some years. It thaws on the first turn, on or after the Feb I turn, that does not have Snow weather in the weather zone.

The Arctic Sea Ice from Greenland to Russia is all in weather zone A.

Naval units may not move in the ice zone unless accompanied by an ice breaker, one for one.

On the first turn of the thaw, naval units may enter the ice area, but risk hitting icebergs. For each naval unit, roll 2 dice for every 10 naval movement points (or fraction thereof) spent in the ice zone. A roll of double 1 (total 2) results in one hit to the naval unit.

## **27B. Naval Activities Phasing.**

Naval activities occur in each player turn, as follows:

### **27B1. Initial Phase.**

The phasing player performs all naval reinforcement activities.

### **27B2. Movement Phase.**

The phasing player moves his naval units and ground units, including those units which underwent naval transport and have movement points remaining. Both players may initiate air operations. Naval combat takes place during naval movements.

### **27B3. Combat Phase.**

Both players may allocate naval gunfire support and fly naval strike air operations against enemy naval groups providing naval gunfire support.

### **27B4. Exploitation Phase.**

The phasing player moves his naval units and his c/m units, including those c/m units which underwent naval transport if they have movement points remaining. Both players may initiate air operations. Amphibious landings may not be made. Phasing naval units on sea patrol may not move. Naval combat takes place during naval movements.

### **27B5. End of Player-Turn.**

The phasing player checks the fuel status of his naval units.

### **27C. Naval Movement Sequence.**

During a naval movement, if more than one of these actions occurs at the same time, resolve them in the following sequence:

- Effects of danger zones.
- Mine attacks against naval units.
- Bombing attacks on naval units by air units.
- Surface naval combat.
- Submarine naval combat.

When the phasing player disembarks cargo, the following landing sequence is followed:

- Disembark cargo.
- If cargo was disembarked at a beach by landing craft, the phasing player checks for landing category damage.
- The non-phasing player resolves any attempts by his ground units to react to a landing.

### **27D. Naval Movement Allowance**

Every naval unit may expend the basic allowance of 120 naval movement points in each phase (movement and exploitation).

Naval units, that did not start the phase low on fuel, or refueled within the basic allowance, may choose to expend up to an additional 60 naval movement points and end the phase low on fuel. Example: Not starting the phase low on fuel, not refueling, and expending 120 and a half movement points, in a phase, results in being low on fuel.

If the total available movement allowance has been expended, the naval unit may not move further that phase (even if in a naval combat).

A naval unit (or naval group) may spend some of its movement allowance, wait for other actions, and resume spending naval movement points again, as many times as desired in the phase, providing the allowance is not exceeded.

### **27E. Naval Supply Status.**

#### **27E1. Low Fuel.**

At the end of each player-turn, any naval unit that, during the player turn, spent naval movement points at sea and did not replenish fuel is low on fuel.

Place a U-1 supply status marker on the naval unit to note low on fuel.

In storm conditions (only), destroyers and small craft at-sea at the end of a movement or exploitation phase are low on fuel. In this case, refueling during the phase does not avoid being low on fuel.

A naval unit may also become low on fuel due to spending movement points beyond the basic allowance in a movement or exploitation phase.

A naval unit low on fuel at the beginning of a movement or exploitation phase may not expend more than the basic naval movement allowance in the phase. It must replenish (or refuel) in the phase, or end the phase in a friendly or neutral functioning port, or be scuttled at the end of the phase. A naval unit that avoided skuttling by ending a phase in a friendly or neutral functioning port cannot subsequently move further until refueled, but may be voluntarily scuttled.

#### **27E1a. Submarine Low Fuel.**

The rules for low on fuel apply to submarines, however SS are permitted to be at sea for two turns before going low on fuel, while SO and SA are permitted four turns.

Example: An SS unit is replenished at sea in Jun I 40. It does not replenish in Jun II 40, the first turn, so it has a full movement allowance in both the movement and exploitation phases of Jul I 40. It does not replenish in Jul I 40, the second turn, still remaining at sea, so at the end of that turn it goes low on fuel. In Jul II 40, it may not exceed the basic naval movement points, and must either replenish, end the movement phase in a friendly or neutral functioning port, or skuttle during the movement phase. If it ends the move in port, it may not move again until it is refueled there.

#### **27E2. Torpedo Depletion.**

A non-submarine naval unit that makes a torpedo attack becomes torpedo depleted upon completion of the attack. Exception: An Axis non-submarine naval unit (most of which carried torpedo reloads) does not become torpedo depleted until completion of its second torpedo attack. A submarine naval unit becomes torpedo depleted when it has used all its torpedo reloads (this is described in detail in the submarine combat rules).

A naval unit which is torpedo depleted may not make torpedo attacks.

A naval unit has its torpedoes replenished when the naval unit replenishes.

**27E3. Ammunition Depletion.**

A naval unit has its ammunition depleted when it provides naval ground support in a combat phase. Place a U-3 supply status marker on the naval unit to note this. An ammo-depleted naval unit has its naval gunnery strength halved when providing naval ground support in subsequent combat phases.

A naval unit has its ammunition replenished when the naval unit replenishes.

Note: Ammo depletion only occurs due to naval ground support and only affects naval units. Naval combat does not deplete ammunition, and the gunnery strength of an ammo-depleted naval unit is unaffected for naval combat.

**Rule 28 Naval Movement****28A. General.**

A player may move his naval groups in the movement and exploitation phases of his player turn. A player cannot move his naval groups in the enemy player turn, except in the maneuver step of naval combat.

Only one naval group may move at one time.

A naval group must move along an all-sea route and may not cross land at any time.

The presence of a naval group in a coastal hex does not prohibit enemy ground units from entering the hex, and naval groups may enter coastal hexes occupied by enemy ground units.

A naval group spends 1 naval movement point to enter (or put to sea in) each full sea hex.

Naval groups also spend naval movement points for other activities, such as to embark and disembark cargo, to provide naval gunfire support, to replenish, and to lay and sweep mines, as detailed later in the rules, and as listed on the Naval Movement Cost Table.

There is no cost to enter a port, but it costs 1 naval movement point to go from in-port to at-sea in a hex.

When movements marked with an asterisk are performed during the maneuver step of naval combat, they cost double, and may incur an additional 9 point penalty, as explained in the combat maneuver rules.

<b>Naval Movement Cost Table</b>	
1*	Enter all sea hex
1*	Leave port to become at-sea
1*	Enter river/canal hexside
1½*	Evade and enter an all sea hex
2*	Enter coastal hex (not permitted while evading)
5	Lay 1 mine point
5	Load code C or F air unit on a carrier category naval unit
30	Embark or disembark cargo at a friendly port
30	Embark or disembark for a naval supply line mission
30	Replenish in port
30	At sea replenishment
30	Prepare for Naval Ground Support
30	Naval bombardment
30	Attempt submarine port penetration (once every six months)
45	Embark or disembark amphibious cargo at a friendly beach
45	Unopposed capture of an enemy port and disembark cargo during a surprise turn
60	Embark or disembark non-amphibious cargo at a friendly beach
60	Transfer cargo at-sea
60	Sweep 1 mine point (DM, MW or MS type naval units only)
90	Repair damaged radar in a friendly in-supply functioning port
90	Disembark cargo at enemy owned beach
* doubled during naval combat maneuver and may incur 9 point penalty.	

Once a naval group begins spending naval movement points for an activity, it may not spend naval movement points for any other purpose until the activity is completed, or until it abandons the activity (which it may do at any time).

At any point when moving, two or more phasing naval groups in the same hex may combine into one naval group, in order to move further together. When naval groups combine, the combined group assumes the movement allowance of the group that has spent the most naval movement points.



Example: A phasing naval group spends 35 naval movement points to move to a sea hex containing another naval group which has already spent 20 naval movement points. The naval groups combine, and the combined group has spent 35 naval movement points.

At any point when moving, a single naval group may split into two or more naval groups. Separate the naval units into their new naval groups. Each group assumes the movement allowance of the original group. Example: A phasing naval group of three naval units spends 32 naval movement points to move to a sea hex. There, the naval group splits into three naval groups, each of which has spent 32 naval movement points.

At the end of each player turn, more than one naval group may be in a hex (or port).

Naval groups (and their cargo) may end their movement at-sea in a sea hex. A naval group which ends its movement in a sea hex containing one or more friendly-owned or neutral ports may remain at-sea or move into any one of these ports (mark with at-sea or in-port markers).

### **28B. Small Craft**

Small craft may not leave port in storm conditions.

### **28C. Evading**

All naval units in a naval group may choose evading, that is zigzagging to avoid contact with the enemy. Evading costs extra naval movement points for movement in all sea hexes.

Evading is not permitted in coastal hexes.

A naval unit evading may perform the last 24 naval movement points of its move in secret. The counter is placed on the map where it was last not secret, and the actual final location is written down.

Allied units evading may not sea patrol. Axis units evading may only sea patrol by using the raiding mission.

Note if both sides are evading (or raiding) neither will be visible to the other player, but that won't matter as such naval units will avoid each other and thus not engage in combat.

The Axis does have an advantage: it does not have to evade when not near an enemy naval unit, while the Allies will want to use evading more often as they don't know the location of raiders.

### **28D. Coastal Craft.**

RF, GB, PT, PC, LC and LB naval units are coastal craft (marked \* on the naval unit type chart). Coastal craft may not move more than 5 hexes from a coastal hex.

### **28E. Mine Warfare.**

The orders of battle list minefields that exist at the start of play. During play, both players can lay and sweep mines.

Mines may damage naval units.

A player receives mine points as listed in his order of battle. A player may also receive mine points by converting naval repair points.

There are two types of minefields: concentrated and nuisance. A nuisance minefield affects the sea hex it is in and all sea hexes adjacent to it; a concentrated minefield affects only the sea hex it occupies. Use mine markers to show the presence of minefields.

Use the following procedure to check for mine damage.

#### **28E1. From a Nuisance Minefield.**

Whenever the moving player moves into or adjacent to a hex with a nuisance minefield, he picks one naval unit in the naval group at random and checks it for mine damage.

Roll 2 dice and modify the roll as follows:

- -1 Minesweeping naval units (DM, MW, and MS)
- +1 Each mine point present above 1

Check the modified dice roll on the Mine Damage Table:

<b>Mine Damage Table</b>	
8 or less	No damage
9	1 hit
10	2 hits
11 or more	3 hits

Example: An Axis naval group consisting of two DD naval units and one TR naval unit enters a sea hex adjacent to a 1 point nuisance minefield and must therefore be checked for mine damage. The Axis player picks at random the TR naval unit, rolls 2 dice, 4 and 6 for a total of 1-, no modifiers apply, consults the Mine Damage Table, resulting in the TR naval unit taking 2 hits of damage.

**28E2. From a Concentrated Minefield.**

Use the same procedure as for a nuisance minefield except that the check is only made when the naval group enters the hex of the minefield, and then ALL naval units in the naval group are checked for mine damage.

**28F. Danger Zones**

Danger zones represent the effects of local small craft and mine laying activities that are too numerous to be represented at the Europa scale.

**28F1. Danger Zone Supply Lines**

A route of sea hexes, from a functioning friendly in-supply port to another functioning friendly port, maybe a sea supply line provided the route does not exceed 7 hexes, and no enemy surface naval units zone of combat or zone of sea patrol includes any of the hexes of the route.

**28F2. Danger Zone Effects**

Sea hexes within 3 hexes of an enemy port that is in supply are a danger zone.

A sea hex can be in both an Axis and an Allied danger zone.

Any naval unit starting a movement phase in, or entering, an enemy danger zone must test for damage by rolling two dice, which are never modified, and consulting the Mine Damage Table.

Exception: Danger zones do not apply during a surprise turn.

An anchorage that is in a friendly danger zone, with a port in supply within 3 hexes, and not in an enemy danger zone has local small craft not represented in the game that can refuel or replenish naval units as if in the port.

**Rule 29 Naval Missions**

Naval units move to perform naval missions during the movement and execution phases.

Providing the naval movement allowance is not exceeded, naval units may perform many naval missions in a phase, of the same or differing types.

If a naval mission has been started in one phase but insufficient naval movement points remain, the mission may be continued in the next friendly movement or exploitation phase.

Naval units performing different naval missions may be in the same naval group.

Example: some naval units may be maybe on an amphibious mission, others on a bombardment mission, others present to deal with coastal defenses, while more are transporting supplies hoping to land them after the successful amphibious mission. To travel together they must move as one naval group.

The missions are as follows:

**29A. Sail**

The basic mission of moving from one location to another.

**29B. Escort**

While a naval group is moving to and then conducting another mission, escorting naval units may move with them, as part of the naval group, occupying one or more of the six surrounding hexes. The purpose of the escort is to engage in surface combat before the main mission is exposed, assuming they happen to be on the right side of the mission force.

Only combat naval units may escort.

A naval group starts escorting by moving into the hex of the naval group it is to escort, joining that group which will usually mean one or other expends naval movement points to join, then it moves (expending the relevant naval movement points) to the hex adjacent to the main mission. Thereafter so long as the naval group is escorting the main mission, it expends the same number of naval movement points as the main mission. The main mission must of course leave enough room for the escorting unit when it is near land, but the escort does not pay the additional cost for the coast, unless the center unit is moving into a coastal hex.

Escorting naval groups may change the hex relative to the main mission at any time but that costs the main mission and all the escorting naval groups 2 naval movement points to reorganize.

Players move the main mission and its escorts as one naval group, with direction markers separating the escorts, or may use naval group markers with the relative position of the escorts shown on the players naval chart.

Units escorting are never performing any other mission, and their presence does not improve the chances of success for the main missions. However, escorts may, at any time in the friendly movement or exploitation phases, break away from escorting to begin another mission.

**29C. Sea Interception**

Sea interception occurs when a friendly combat naval group sails into the identification range of an at-sea surface enemy naval group.

That move may happen inadvertently if the non-phasing naval group is evading or raiding, and the non-phasing player must announce when such an event occurs (but does not reveal the location of the evading or raiding naval units).

Sea interception may not be used while evading.

Only combat naval units may perform sea interception.

Combat naval units on a transport mission, and cargo (even empty) naval units may not perform sea interception.

When a submarine naval group is not evading and sails into an enemy sea patrol zone, the sea interception roll must be made. If successful, the sea patrol naval units will move (without paying naval movement points) to the hex of the submarine naval group for combat to ensue.

For surface sea interception naval units, if the non-phasing naval group is on sea patrol, the result is automatically a success, and combat ensues.

For surface sea interception naval units, if the non-phasing naval group is raiding, the non-phasing player may decide it is a success, and thus combat ensues.

If combat has not thus already ensued, roll 2 dice for sea interception and modify the result as follows:

#### 29C1. Sea Interception Modifiers:

- -1 If the naval group being intercepted is raiding or evading.
- -1 During rough sea conditions.
- -2 During stormy sea conditions.
- -1 For every 2 points of speed advantage the naval group being intercepted has over the intercepting naval group.
- +1 For every 2 points of speed advantage the intercepting naval group has over the naval group being intercepted.
- +2 If the naval group being intercepted is mixed or cargo, and intercepting naval group is combat.
- +2 If the naval group being intercepted has a coastal hex within its combat zone, but is not benefiting from friendly inshore waters.
- +2 if the naval group being intercepted has been subject to an air attack during this player turn.
- +1 for 2 naval units in the sea interception group
- +2 for 3 or 4 naval units in the sea interception group
- +3 for 5 or more naval units in the sea interception group

Using the modified die roll, consult the Interception Table:

Interception Table	
Modified 2d6	Result
3 or Less	Fail
4 to 6	Miss
7 or more	Success

#### 29C2. Sea Interception Results

**Miss** means the naval groups either did not see or did not correctly identify each other, so combat is not initiated. The phasing naval group may continue moving, ignoring the presence of the enemy naval group for the remainder of the player turn. Another phasing naval group may attempt sea interception of the enemy naval group later in this player-turn.

**Fail** means the enemy naval group has avoided interception. No other friendly naval group may attempt sea interception of that naval group during the player-turn. All friendly naval groups move ignoring the presence of the enemy naval group, for the remainder of the player turn.

**Success** means the naval groups identify each other and combat ensues. Success does not guarantee that surface naval units will be in combat range during the ensuing naval combat.

#### 29D. Sea Patrol

Naval groups go on sea patrol by moving to an at-sea location (the patrol center) during a friendly movement phase, and do not move nor spend naval movement points during the friendly exploitation phase. They remain on sea patrol until the start of the next friendly movement phase. Mark on sea patrol units with an appropriate marker.

Note that if the units going on sea patrol did not refuel earlier in the movement phase, they will go low on fuel at the end of the player turn and still be low on fuel for combat in the following enemy player turn.

The radius of the sea patrol is 5 hexes around the patrol center, which is reduced to 3 hexes in storm conditions.

Enemy air units on naval patrol and enemy naval units on sea patrol may intercept the friendly units either on route to sea patrol, or while on sea patrol in any hex of the patrol zone (as if the naval group on sea patrol is in that hex).

If a naval group on sea patrol needs to move in the exploitation phase, it must abandon the sea patrol mission first.

In the next player turn, when a phasing surface naval group moves into or expends naval movement points at-sea within the patrol zone, the owner of the naval group on sea patrol may choose to immediately roll for sea patrol interception.

If the owner of the naval group on patrol chooses not to roll for sea patrol interception, the phasing naval group may complete the action and then opt not to spend any more naval movement points, thereby avoiding inciting a sea patrol interception roll.

Roll 2 dice, and modify the roll as follows:

#### 29D1. Sea Patrol Interception Die Roll Modifiers:

- -1 If the naval group being intercepted is raiding or evading.
- -1 During rough sea conditions.
- -2 During stormy sea conditions.
- -1 Every 2 points of speed advantage the phasing naval group has over the patrolling naval group.
- +1 Every 2 points of speed advantage the patrolling naval group has over the phasing naval group.
- +1 If phasing naval group is combat on a transport mission.
- +2 If phasing naval group is mixed or cargo (even if empty).
- -2 If the phasing naval group is a TL naval unit alone. (This cancels out the cargo modifier)
- +1 For German ships on sea patrol (but not on raiding) with Code R radar. (*Almost all German ships had radar, but would not use it during raiding for fear of detection*).
- +1 For other ships with Code R radar.
- +2 If the non-phasing naval group has a coastal hex within its combat zone, but is not benefiting from friendly inshore waters.
- +2 if the phasing naval group has been subject to an air attack during the preceding 5 naval movement points.
- +1 for 2 naval units in the sea patrol interception group
- +2 for 3 or 4 naval units in the sea patrol interception group
- +3 for 5 or more naval units in the sea patrol interception group

Using the modified die roll, consult the Interception Table

Interception Table	
Modified 2d6	Result
3 or Less	Fail
4 to 6	Miss
7 or more	Success

#### 29D2. Sea Patrol Interception Results

- **Miss** means the naval groups either did not see or did not correctly identify each other, so combat is not initiated. The phasing naval group may continue moving, ignoring the presence of the patrol naval group for the remainder of the phase. The patrol naval group may attempt to patrol intercept another enemy naval group later in the player turn.
- **Fail** means the sea patrol naval group has failed interception and may not attempt another patrol interception this player-turn. The phasing naval group may continue moving, ignoring the presence of the patrol naval group.
- **Success** means the naval groups identify each other as enemies. The sea patrol naval group may either remain in the patrol center or move (without paying naval movement points) towards (each hex being nearer) the intercepted naval group to a hex within the patrol radius at the limit of identification range. Submarines always move into the hex of the intercepted naval group. Combat ensues. Success does not guarantee that surface naval units will be in combat range during the ensuing naval combat.

If a sea patrol interception attempt fails, the non-phasing player may attempt to have another eligible naval group sea patrol intercept. Once the non-phasing player is finished with all sea patrol attempts, the phasing player resumes naval movement.

Sea patrol interceptions are always optional. The owning player may not want to risk an unsuccessful result and want to wait for a different naval group to pass later in the player turn. The test may also be deferred as the enemy might come nearer.

### **29E. Sea Patrol from Port**

Naval units in-port may sea patrol out to a range of 2 sea hexes around the port, even if they did not prepare for sea patrol in the preceding player turn. In this case, the interception is always automatically successful, and naval combat ensues with the intercepting naval units changing status from in-port to at-sea. Such interception is still optional, but will often be done to avoid being bombarded in-port.

If the naval units in-port are in progress with another mission, that has to be abandoned, before the sea patrol begins, and they may not fire (neither gunnery nor torpedoes) in the first round of naval combat. Naval units in-port that are either low on fuel, or during an enemy surprise turn, also may not fire in the first round of naval combat.

### **29F. Raiding**

Raiding is a special form of sea patrol.

Only the Axis player may perform raiding missions.

The mission is the same as a sea patrol, except the location of the patrol center is secretly written down. The patrol center must be within 24 naval movement points of the last declared location of the naval group on the mission and evade movement must be applied for that hidden movement, which must therefore be entirely in full sea hexes.

When sea patrol interception is rolled on the Interception Table by the raiding naval group, the phasing naval group is informed of the presence of a nearby raiding naval group, but the patrol center is still not revealed.

Immediately after the naval combat, phasing air units on naval patrol may attack the raiding naval group. If the air units have sufficient range to reach the combat hex, the naval patrol proceeds as usual. If they do not have the range, they can still roll to attempt to locate the raiding naval group, and if the roll is successful the non-phasing player will determine if the raiding search area is reachable by the naval patrol, if so, the combat takes place. In any case, the patrol center location is still not revealed.

The Axis player must also declare the presence of a raiding naval group if a phasing Allied naval group moves into the raiding patrol zone and the Axis player opts not to attempt interception. The Allied phasing player may then attempt a sea Interception.

### **29G. Naval Bombardment**

Naval units may shell targets with naval bombardment during the movement or exploitation phases.

Naval units perform this mission in a sea hex such that the target is within their combat zone and expend 30 naval movement points in the hex. Naval units may shell individually or combined with other ships on the same mission with the same target. The naval units do not have to be in the same hex. Total the gunnery factors bombarding, divide by 10, rounding fractions down, then treat this as tactical bombing factors against the target.

The gunnery factors may be halved by other rules, such as 2 hex range or half damage to capital ships.

The resolution of these naval bombardment missions is the same as for air bombing missions and the following are permitted targets:

- Airbase Capacity
- Air Units at Airbases
- Harassment
- Rail Lines
- Rail marshaling yards (Rail capacity)
- Bridges
- Port Capacity
- Naval Units in-port (Naval Strike)
- Industrial Complexes
- Nuisance Raids

The naval bombardment may not be combined with bombing missions.

### **29H. Naval Ground Support**

Battleship, cruiser, and destroyer naval units (only) may support friendly ground units in combat through naval ground support.

To provide naval ground support, the naval unit must first prepare for the fire by spending 30 naval movement points at-sea in a sea hex, during a friendly movement or exploitation phase.

Once prepared, it remains prepared as long as it remains at-sea in the same sea hex until the start of the next friendly initial phase. Note: When a naval unit is prepared for fire, place a marker of your choice on the naval unit to note this.

During a subsequent combat phase, a prepared naval unit may provide naval ground support to one ground combat if the attacked hex, when the combat is resolved, is within the naval unit's combat zone.

A naval unit has a naval ground support strength equal to its current gunnery strength divided by 10. Example: a naval unit with a current gunnery strength of 18, has a naval ground support strength of 1.8. The naval ground support strength of naval units is halved in rough sea conditions, quartered in stormy sea conditions, and reduced to 0 in typhoon sea conditions. The gunnery factors may be halved by other rules, such as 2 hex range or half damage to capital ships.

Each naval unit providing naval ground support has a ground combat strength equal to its modified naval ground support strength. For the purposes of the Support and Artillery rules, treat each battleship providing naval ground support as a 1 RE artillery unit, each cruiser as a 1/2 RE artillery unit and each single destroyer as 1/4 RE artillery. A double destroyer naval unit counts as a 1/2 RE artillery unit.

Naval ground support strength is ignored when calculating losses due to ground combat, and a naval unit providing naval ground support is not affected by ground combat results.

### 29I. Submarine Port Penetration

One half flotilla SC submarine naval unit (or a single SC submarine) may attempt to enter an enemy port, to attack enemy naval units in-port.

The attempt, whether successful or not, costs 30 naval movement points, spent when the submarine has entered the port hex and the die is rolled.

Roll one die and make the following modifications:

- 1 Enemy ASW units in the port not in progress on other missions.
- 1 Enemy ASW units at-sea in the port hex not on other missions.

Consult the success table.

Success Table	
Modified die roll (1D6)	Result
1 or less	*F
2	*F
3	F
4	F
5	S
6 or more	S

\*F means the submarine naval unit was lost in the attempt.

F means the submarine naval unit failed to enter the port and may not attempt another port penetration this player turn.

Success means the submarine naval unit did enter the port. The submarine unit may make one torpedo attack on one vessel in the port. The submarine naval unit must leave the port after the torpedo attack, which does not require further naval movement points and does not require a further roll of the success table. The submarine is not required to leave the port hex (although it will probably want to return home to celebrate).

After a submarine port penetration attempt, whether successful or not, that player must wait six months before attempting another submarine port penetration. *(Historically these missions were often, but not always, by mini submarines operating from full size mother submarines. They required considerable planning and coordination with intelligence services to find a path through the port defenses.)*

### 29J. Naval Transport

The phasing player may use naval transport during his movement and exploitation phases, moving cargo between friendly-owned ports or beaches.

Players transport cargo using their transport category naval units. Two or more transports may combine their capacities to carry large cargoes (such as divisions), as long as they all move in the same naval group while transporting the cargo. A transport naval unit may move both prior to and after transporting cargo if it has the naval movement points to do so.

Cargo must be embarked to be moved by naval transport. A transport and its prospective cargo must be present in the hex together at all times while embarkation is underway. When the transport has spent all necessary naval movement points to embark the cargo (per section A2 below), the cargo is embarked (on-board the transport) and henceforth affected by what happens to the transport. The transport (with its embarked cargo) may then move per the normal naval movement rules. Embarked cargo may subsequently disembark from the transport. A transport and embarked cargo must be present in the hex together at all times while disembarkation is underway. When the transport has spent all necessary naval movement points to disembark the cargo, the cargo is disembarked (ashore in the hex).

While embarked, a ground unit loses its ZOC if it would normally have a ZOC.

A ground unit is under no special restriction in the player turn after it disembarks from naval transport. Example: a unit transported by sea to a port in a friendly movement phase, may move (if it has naval movement points remaining) in the same movement phase, attack in the combat phase, and move (if so capable) in the exploitation phase.

A resource point or general supply point may be moved by rail or by air transport after being disembarked.

### **29J1. Transport Capacity.**

Naval units with code E (that is all transport naval units) may embark and transport cargo: ground units, supply items, and replacement points.

Combat naval units may exceptionally transport ground units that have no heavy equipment. A battleship naval unit 2 REs, cruiser 1 RE, double destroyer naval unit  $\frac{1}{2}$  RE, and a single destroyer naval unit  $\frac{1}{4}$  RE. While transporting any ground unit, the naval unit gunnery, AA and torpedo strengths are halved.

Cargo is carried based on its RE size (see the Regimental Equivalents Table); the RE size of cavalry and c/m units is doubled for naval transport purposes. A naval unit with code E may carry up to 1 RE of cargo. A naval unit with code E followed by a number may carry up to that number of REs of cargo.

An item of cargo comprises 1 ground unit (of any size), 1 resource point counter (any size), 1 status counter representing general supply points (any size), 1 replacement point, 1 mine point, or 1 LC naval unit.

When a naval unit takes damage, its cargo can be affected:

If the naval unit is sunk, any cargo it is carrying is eliminated.

If the naval unit has its cargo capacity reduced, cargo in excess of its remaining capacity is eliminated.

If two or more naval units combine to carry cargo and any are sunk or damaged, cargo in excess of the remaining cargo capacity is eliminated.

Whenever cargo is eliminated and there is a choice of what can be eliminated, randomly choose one item of cargo and eliminate it. If the remaining cargo still exceeds the remaining cargo capacity, repeat this procedure. Continue repeating this procedure until the cargo no longer exceeds the remaining cargo capacity. Example: A transport with a cargo capacity of 2 REs is carrying an infantry regiment (1 RE of cargo), an armor replacement point ( $\frac{1}{2}$  RE of cargo), and an artillery battalion ( $\frac{1}{2}$  RE of cargo). The transport takes one hit of damage, reducing its cargo capacity to 1.

Randomly choosing one item of cargo, the armor replacement point is selected and eliminated. This leaves 1.5 REs of cargo which still exceeds the remaining cargo capacity of 1. Randomly choosing one item of cargo, the infantry regiment is selected and eliminated. This leaves  $\frac{1}{2}$  RE of cargo, which no longer exceeds the remaining capacity.

### **29J2. Regular Transports (TR).**

A TR naval unit may not embark or disembark cargo at an enemy-owned beach.

Note that TR naval unit may embark and disembark cargo at friendly owned beaches.

### **29J3. Supply Transports (TS).**

A TS naval unit may only embark and disembark cargo at a port; it may not embark or disembark cargo at a beach. Further, it may not transfer cargo to another transport.

TS naval units may only transport supply counters and resource points.

### **29J4. Oiler Transports (TO and AO).**

TO and AO naval units may only embark and disembark cargo at a port; it may not embark or disembark cargo at a beach. Further, it may not transfer cargo to a transport other than TO or AO.

TO and AO naval units may only transport supply points, transport resource points, perform the naval supply line mission, or perform sea replenishment.

### **29J5. Troop Transports and Liners (TT and TL).**

Only unsupported ground units without heavy equipment may be carried as cargo by a TT or TL naval unit.

### **29J6. Transport Movement Costs Naval Units.**

A naval group carrying cargo must spend naval movement points to embark or disembark cargo as listed on the Naval Movement Cost Table.

These naval movement point costs must be paid both when the cargo is embarked and when the cargo is disembarked. A naval group may expend part of the embark/disembark cost in one phase (movement or exploitation) and complete the cost in a subsequent phase (exploitation or movement). Use status markers or make a note to keep track of the embarking/disembarking.

### **29J7. Transport Movement Costs Ground Units.**

A ground unit must spend MPs when it disembarks. Note that the unit does not spend MPs to embark. These MPs are spent from the transported unit's movement allowance in the movement or exploitation phase the unit disembarks. To determine the number of MPs the unit spends, consult the Naval Transport Costs Table. Cross-index the unit's movement allowance with the naval movement step number in which the unit completed disembarkation in a phase. The result is the number of MPs spent by the unit.

Naval Transport Costs Table							
MP	Naval Movement Points Used						
Rating of	131	111	91	71	51	31	1
Ground	to	to	to	to	to	to	to
Unit	150	130	110	90	70	50	30
1	1	1	1	1	1	1	1
2	2	2	2	2	1	1	1
3	3	3	2.2	2	2	1	1
4	4	4	3	3	2	2	1
5	5	5	4	3	3	2	1
6	6	6	5	4	3	2	2
7	7	7	6	5	4	3	2
8	8	7	6	5	4	3	2
9	9	8	7	6	5	3	2
10	10	9	8	6	5	4	2
R	40*	35*	30*	24*	19*	14*	8*
	# = Movement Factors used during naval transport						
	#* = Rail Movement Factors used during naval transport						

Example: During the movement phase, a unit with a movement allowance of 8 disembarks and thus must spend movement points. Naval Transport Costs Table is consulted. Cross-indexing the unit's movement allowance (8) with the number of naval movement points which the naval unit had spent when it completed disembarkation (74) shows that the unit spent 5 MPs during naval transport, leaving it with 3 MPs for the remainder of the movement phase.

If the unit is in the port of embarkation at the start of the phase, it will always have sufficient ground movement allowance to be transported. Units may expend movement to get to a port and then be embarked, provided they have sufficient ground movement points to cover the naval movement points that the transports will use during the phase during and after the embarkation.

Example: A unit with a movement allowance of 10 expends 6 MPs moving to a friendly port. The naval transport starting with 120 naval movement points, spends 18 naval movement factors getting to the port. The ground unit embarks costing the naval transport 30 naval movement points, leaving it with  $(120-18-30=)$  72 naval movement points. The ground unit is not going to disembark this phase. Having used 6 MPs, the ground unit has only 4 MPs left for the time at sea. Consulting the Naval Transport Cost Table, the box on line 10 that is equal or less than 4 is box 3, which corresponds to 31 to 50 naval movement points, limiting the transport to 50 naval movement points. The transport can move or perform other naval tasks spending the lesser of 72 and 50 naval movement points, thus only 50. On top of that, the naval transport may use a further 60 naval movement points and end the phase low on fuel.

Ignore MP costs when ground units not permitted to move in the exploitation phase disembark during the exploitation phase.

### 29J8. Cargo and Weather.

Cargo may not embark or disembark (at a port or a beach) during typhoon sea conditions.

Cargo may not embark or disembark at a beach (only) during stormy sea conditions.

### 29J9. Disruption of Cargo.

Any unit with the amphibious or marine symbol as parts of its unit type is amphibious capable. In addition, any item of cargo that is embarking or disembarking by a landing vessel is amphibious capable.

When cargo with heavy equipment, but which is not amphibious capable, embarks or disembarks at a friendly-owned beach, it may be disrupted or eliminated. (Note that cargo without heavy equipment, or cargo with heavy equipment but that is also amphibious capable, is not affected.)

Roll one die for each such item of cargo which disembarks at the friendly owned beach and modify the die roll as follows:

- -3 For landing during rough seas.
- -3 If unit landing is not amphibious capable.
- -3 If unit landing has heavy equipment.
- -2 If unit landing is combat/motorized, artillery or cavalry. (This is in addition to the heavy equipment modifier.)
- -1 For landing in an enemy-occupied hex and/or in an enemy ZOC.
- -1 For landing in a non-clear terrain hex.
- -1 For each non-suppressed enemy coast defense level in the hex.



Disruption Table	
Modified Die Roll	Result
2 or more	No Effect
1 or 0	Disrupted
-1 or -2	Badly Disrupted
-3 or less	Eliminated

Find the result on the Disruption Table, and immediately implement it. Results are:

- No Effect: The item of cargo lands safely.
- Disrupted: The item of cargo is disrupted (if it is a unit) or immediately eliminated (if anything else).
- Badly Disrupted: The item of cargo is badly disrupted (if it is a unit) or immediately eliminated (if anything else)
- Eliminated: The item of cargo is immediately eliminated.

### 29J10. Landing Craft Damage.

Landing craft which disembark cargo at a beach risk being damaged due to wear and tear from surf and beach conditions.

When an LC disembarks cargo at a beach, the owning player checks for damage. Roll one die and applying the following modifiers:

- +3 During calm sea conditions.
- +1 During rough sea conditions.
- -1 if cargo disembarked into an enemy-occupied hex.

Consult the Success Table:

Success Table	
Modified die roll (1D6)	Result
1 or less	*F
2	*F
3	F
4	F
5	S
6 or more	S

Immediately implement the result

- Success means the LC disembarked its cargo without incurring damage.
- Failure means the LC is damaged and cannot be used for naval transport or amphibious landings until repaired. Flip the LC counter so the damaged side is face up.

Damaged LCs may be repaired. During a player's initial phase, roll a die for each damaged LC: it is repaired on a roll of 1 or 2. LCs may also be repaired through the use of naval repair points.

### 29J11. Transfer of Cargo.

Cargo may be transferred from one transport to another. At least one of the transferring transports must be a landing vessel. The two transports must both be at-sea or in-port in the same hex, and must have spent the same number of naval movement points in the phase. If the two transports have spent differing amounts of naval movement points, one must idly consume naval movement points in the hex until they have spent the same amount. Both transports must spend 60 additional naval movement points for the transfer. Once transferred, the cargo is embarked aboard the receiving transport. Both transports may subsequently continue naval movement spending any remaining naval movement points normally.

Example: A TR naval unit, having spent 16 naval movement points in the phase, is transferring cargo to an LC naval unit, which has spent 12 naval movement points in the phase. The LC must spend 4 naval movement points waiting for the TR before the cargo transfer can be started (such that both naval units have spent 16 naval movement points). Both the TR and LC spend an additional 60 naval movement points to transfer the cargo. The TR and LC may resume their movement following transfer each having spent 76 naval movement points.

#### 29J11a. Naval Transfer to Landing Craft.

A naval unit carrying an LC naval unit and other cargo may simultaneously disembark the LC and transfer its other cargo to the LC at total cost of 60 naval movement points (the same as the transfer cost).

### **29J12. Landing Vessels as Ferries.**

A landing vessel naval unit may operate as a ferry, allowing the owning player to treat one sea hexside as a major river hexside for supply, ground movement, and ground combat purposes.

To serve as a ferry, an undamaged landing vessel must start the initial phase adjacent to the hexside and may not move at all that turn. If there is more than one eligible sea hexside in the landing vessel's hex, the player indicates which hexside has the ferry.

As long as the landing vessel is present, friendly ground units treat the hexside as a major river hexside for supply, movement, and combat purposes during the player turn.

The landing vessel can operate as a ferry in either player turn. Note that during the enemy player turn, this will allow friendly units to retreat across its hexside if required to retreat. If the landing vessel is eliminated for any reason, the player immediately loses its ferrying services.

Special: A landing vessel cannot be used as a ferry across a hexside if either hex adjacent to the hexside is in a sea box containing an enemy combat or mixed naval group at-sea.

### **29K. Amphibious Landings**

Both sides may plan and execute amphibious landings.

The phasing player may make amphibious landings during his movement phases, using his transport naval units to land eligible cargo at enemy-owned beaches. In general, the rules of naval transport are used, with the following restrictions governing amphibious landings:

- Amphibious landings may not be made during stormy or typhoon sea conditions.
- Amphibious landings may occur only in the movement phase, not in the exploitation phase.
- Ground units and supply items are the only cargo that may make amphibious landings.
- A ground unit must start the movement phase in the port of embarkation and spend all its remaining MPs to make an amphibious landing.

#### **29K1. Disruption.**

When cargo makes amphibious landings, it may be disrupted or eliminated. Check for this using the procedure described in the disruption of cargo rule above, except that ALL cargo which makes an amphibious landing is checked, whether amphibious or not, and whether with heavy equipment or not.

#### **29K2. Operations Ashore.**

Any unit with the marine or amphibious symbol as part of its unit type is amphibious trained. In addition, all Axis units with the mountain or light infantry symbol as part of their unit type are amphibious trained.

A unit making an amphibious landing is affected in several ways. For the remainder of the player turn in which a unit makes an amphibious landing:

- It loses its ZOC except for the hex it occupies. Also note that if it became disrupted (per section A above), it would lose its ZOC even in the hex it occupied.
- An amphibious trained unit has its combat strength halved. Any other unit has its combat strength quartered. Note that this halving or quartering is in addition to any modification to the unit's combat strength due to disruption.

In addition to the above effects, a unit landing during rough seas has its attack strength halved.

A non-mountain unit landing in a hex containing coastal cliffs has its attack strength halved in addition to all other modifications.

Units may make an amphibious landing in an enemy occupied hex. In this case, overruns and combat in the hex are conducted the same as overruns and combat during an airborne landing in an enemy-occupied hex.

The units making an amphibious landing in a hex may draw attack supply from a resource point embarked on any friendly naval unit at-sea in the hex.

#### **29K3. Planning and Preparation.**

Amphibious landing operations must be planned in advance.

The same rules as airborne landing operations apply:

- During the player's initial phase at least one game turn prior to the operation, the player writes down the identity of the unit involved in the operation and the target hex of the operation. A unit may have only one operation planned for it at a time. Once planned, an operation may be canceled at the player's option in a subsequent friendly initial phase, and a new operation for the unit may be planned at that time. A player may also cancel an operation during the phase in which it is to occur.
- During an initial phase, an operation may not be planned for a unit that is in an enemy ZOC at that time. Once an operation is planned for a unit, it must be canceled if the unit is in an enemy ZOC, attacks, or is attacked at any time between the planning and the execution of the operation. If for any reason the unit is not able to participate in the operation during the phase in which it is to take place, the operation must be canceled.
- An operation may be planned in advance to occur for a unit on the turn it arrives as a reinforcement.

**29K4. Enemy Reaction.**

If a player makes any amphibious landings during his naval movement, the enemy player reacts to the landing at the end of the movement phase.

For each hex in which an amphibious landing was made, the reacting player rolls one die and consults the Success Table, with no modifiers:

Success Table	
Modified die roll (1D6)	Result
1 or less	*F
2	*F
3	F
4	F
5	S
6 or more	S

Results are:

- Failure: No reaction occurs.
- Success: One ground unit of the player may react the unit must be within 3 hexes of the landing hex: it cannot be in an enemy ZOCs. The reacting player immediately moves the reacting unit.

A reacting unit moves as follows:

- It may spend up to 1 MP (if non-c/m) or 3 MPs (if C/m) to move.
- A unit may always move a single hex (except into or across prohibited terrain), by spending all of its reaction MPs.
- It may enter a hex occupied by both friendly and enemy units. If it does so, it must stop its movement in that hex.
- If in a hex containing enemy units (such as due to an enemy airborne or amphibious landing), it may leave the hex. Alternately, it may overrun (if possible) the enemy units in the hex. Follow the rules of overrun. including spending MPs for the overrun.
- It may not end its movement in violation of the stacking limits.
- It may not break down or assemble during reaction movement.

Note: A unit may move in reaction only once each turn.

**29K5. Landing Craft Damage.**

The landing craft damage rule above applies to amphibious landings.

**29L. Naval Supply Lines**

For a port to function as a supply source, naval supply line missions must travel to it during the preceding player turn from a port that is connected by rail to a full supply source or a limited supply source with sufficient supply capacity. Transports carrying no other cargo must make this mission and must spend 30 naval movement points in both the source and destination ports. If the total (E) capacity of the transports that arrive in the turn equals or exceeds the current capacity of the port being supplied, that port may provide supply to up to the number of REs of ground or air units as five times the current capacity of the port. Such transports do not count against the port capacity for other purposes. If fewer transports arrive, the port may provide supply to up to the number of REs of ground or air units as five times the total E number that did arrive.

Example: a standard port with 3 port hit markers has a capacity reduced from 6 to 3. In the friendly player turn, transport vessels with a total capacity of 4, carrying no other cargo, arrive at the port from a port that is connected by rail to a full supply source. The next turn, the port is a supply source for up to 3 times 5, thus for 15 REs.

If a port was thus in-supply and for one turn no supply vessels arrive, the port becomes out of supply the following turn.

Provided the journey is suitably short, a naval transport unit may make multiple trips to contribute supply capacity on a naval supply line. Each arrival at the port on a trip, from a port that is connected by rail to a full supply source, counts. Naval movement points must, of course, be spent for outbound and return legs as sailed.

**29M. Loading, Carrying and Laying Mines.**

Naval units with code M may carry mine points in the same manner that transports may carry cargo. Note that these are the only naval units that may carry mine points. A naval unit with code M may carry one mine point; a naval unit with code M followed by a number may carry up to that number of mine points.

Naval units with code M expend 15 naval movement points to load each mine point, which must be present in the port of loading.

A naval unit carrying one or more mine points can lay one mine point in a sea hex, establishing either a nuisance minefield in the hex (which also affects all adjacent sea hexes) or a concentrated minefield only in the hex, by spending 30 naval movement points in the hex. Mark the presence of mines in a hex by placing mine markers there equal to the number of mine points present. Further mines may be laid in the same hex for 30 naval movement points each.

A naval group that has just laid a minefield may leave it without checking for mine damage. However, if it were to re-enter the minefield it would have to check as usual.

### **29N. Sweeping Mines.**

DM Mine Warfare Destroyer, MW Mine Warfare, and MS Minesweeper naval units may sweep mines during naval movement, by first entering the hex with the mine marker where it is checked for mine damage. Once in the mine hex, it may sweep the mines there. For every 60 naval movement points it spends, one enemy mine point is swept; remove one mine point from the minefield.

### **29O. In-Port Replenishment.**

Expending 30 naval movement points in a friendly in-supply functioning port ensures that a naval unit will not go low on fuel at the end of the player turn.

Note that these naval movement points may be spent in conjunction with loading or unloading cargo. Example: a transport with low fuel which spends 60 naval movement points at a friendly-owned in-supply functioning port to disembark cargo has also replenished.

When the naval unit replenishes, remove any U-1 (low fuel), U-2 (torpedo depletion), and U-3 (ammo depletion) supply status markers on it.

#### **29O1. Refueling at Oil Fields.**

Some port hexes also contain oil fields. Naval units may refuel at an oil field by spending 30 naval movement points in the hex (In the same manner as in-port replenishment) even if it is out of supply. When the naval unit refuels, remove any U-1 (low fuel) supply status markers on it. Refueling at an oil field ensures the naval unit will not go low on fuel at the end of the player turn. It does not affect being low on ammo or torpedo depletion.

### **29P. Sea Replenishment.**

AO Resupply Ships perform this mission in a hex where the AO ship naval group combines with a naval group. All naval units in the new group expend 30 naval movement points. 1 RE of fuel cargo or 1 resource point on the AO ship is consumed to replenish 1 battleship, or 2 cruisers, or 4 destroyers, or 4 flotillas of small craft, or 4 transports.

When the naval unit is sea replenished, remove all U-1 (low fuel), U-2 (torpedo depletion), and U-3 (ammo depletion) supply status markers on it.

Sea replenishment cannot be performed in the same hex as, nor in a hex next to, an enemy ground unit.

Sea Replenishment cannot be performed during stormy weather.

Exceptionally, this replenishment mission may be performed in any weather in an anchorage, or a friendly or neutral port.

In an anchorage, or a friendly port, a TO may replenish the fuel, but not the torpedoes nor ammunition of naval units, in the same way as sea replenishment.

SA Resupply Submarines may perform the sea replenishment mission, following the above rules, but only to replenish submarines. SA Resupply Submarines may only carry fuel, not resource points, so they cannot replenish submarines that are low on fuel. (Plentiful fuel is required for making the difficult rendezvous.) 1 RE of fuel replenishes 1 full submarine flotilla. ½ RE of fuel replenishes a half flotilla of submarines. SA Resupply Submarines may only stock back up on fuel at a friendly in-supply port.

## **Rule 30 Naval Combat.**

Naval combat occurs during naval movement and is initiated immediately when:

- A non-phasing naval group successfully rolls for sea patrol interception.
- A non-phasing naval group has sea patrol intercepted from a port (always successful).
- A phasing naval group successfully rolls for sea interception.
- A phasing naval group leaves port to become at sea in the combat zone of an enemy naval group not on sea patrol/raiding.
- A phasing naval group spends any naval movement points at-sea without leaving the hex in the combat zone of an enemy naval group not on sea patrol/raiding.

A cargo naval group ignores the presence of enemy cargo naval groups for naval combat purposes. A cargo naval group can move adjacent to or even enter the hex of an enemy cargo naval group, and doing this does not initiate naval combat.

A submarine naval group ignores the presence of enemy submarine naval groups for naval combat purposes.

A naval group at-sea ignores the presence of enemy naval groups in-port for the purposes of naval combat. The moving naval group may even enter the port hex. However, there is a mission to bombard ships in-port.

When naval combat is initiated, normal naval movement is temporarily suspended while the combat is resolved. Once combat is over, normal naval movement resumes.

Sometimes a naval group initiates naval combat with enemy naval in multiple hexes at the same time. These are all resolved as one big battle.

Combat between naval units is resolved in a series of rounds. Each naval unit may make a maximum of one gunfire and one torpedo attack each round. (A player may elect for naval units not to attack at all during a round). Often, combat is initiated when naval units are out of range, in which case a number of rounds with only the maneuver step take place until either the range is closed or leaving the combat occurs.

### **30A. Surface Naval Combat**

In surface naval combat, non-submarine (surface) naval units use their gunnery and torpedo strengths to attack identified and observed enemy surface naval units.

Each round of surface naval combat has the following steps:

#### **30A1. Range Determination Step.**

The range is determined by the position of the naval units on the map.

There are three ranges at which surface naval combat may be fought; from farthest to closest, they are: battleship, cruiser, torpedo. The range at which a round is fought determines which naval units may attack and the type of attack (gunfire and torpedo) they may make:

- Battleship range is 2 hexes at which battleships (only) may use their gunnery strengths HALVED to make gunfire attacks. Naval units cannot make torpedo attacks.
- Cruiser range is 1 hex at which cruisers and battleships (only) may use their FULL gunnery strengths to make gunfire attacks. Naval units cannot make torpedo attacks.
- Torpedo range is in the same hex, where all naval units may use their gunnery strengths to make gunfire attacks, and may use their torpedo strengths to make torpedo attacks. Note that gunfire and torpedo attacks occur simultaneously at this range.

#### **30A2. Torpedo Attack Step.**

Naval units use their torpedo strengths to make torpedo attacks on enemy naval units in this step. Note that naval units with gunnery and torpedo strengths may make attacks using both weapons in the same round.

To make torpedo attacks, the attacking naval units must be in the same hex as the target.

Each naval unit with a torpedo strength may fire some or all its torpedo strength at one naval unit. Alternatively, the torpedo strength may be divided into two (not necessarily equal) amounts (fractions not permitted) which are fired as two separate torpedo attacks each at one naval unit.

For each torpedo attack, the firer must first declare if the torpedoes are launched early, in which case a  $-2$  modifier applies, and the results of the torpedo attack are applied simultaneously with gunfire. The alternative declaration is that the torpedoes are launched after closing with the target, the  $-2$  modifier for early firing is not applied, but the attack only occurs if the firing naval unit has survived all gunfire and other early launched torpedo attacks. If a player rolls for an attack without declaring, the torpedoes are deemed to have been launched early.

Exception: Imperial Japanese Navy attacking may fire torpedoes (Long Lances) into the next hex, in which case the torpedo damage is applied simultaneously with gunfire and the  $-2$  modifier always applies.

For torpedo attack, roll 2 dice, and modify the result as follows:

- $-1$  During rough or stormy seas.
- $-2$  Torpedoes launched early.
- $-1D6/2$  Germans firing 1940 or earlier in weather zone A (defective magnetic torpedoes).
- $-1D6$  Americans firing 1942 or earlier (defective torpedoes).

The last two modifiers account for historically defective torpedoes. After rolling for the torpedo attack roll one additional die to determine the adjustment.  $1D6/2$  is one die roll divided by two with fractions rounded down.

For each target, cross reference the torpedo strength fired against the speed rating of the target on the Torpedo Attack Table:

Torpedo Attack Table						
Torpedo Strength	Target Speed					
	up to 3	up to 5	up to 6	up to 7	up to 8	more than 8
up to ¼	8/-/-	8/-/-	9/-/-	10/-/-	10/-/-	11/-/-
up to ½	7/-/-	7/-/-	8/-/-	9/-/-	9/-/-	10/-/-
up to 1	5/9/-	5/10/-	6/11/-	7/12/-	7/-/-	8/-/-
up to 2	4/8/10	4/9/11	6/10/12	6/11/-	6/12/-	7/12/-
up to 3	4/7/9	4/8/10	5/9/11	6/10/12	6/11/-	6/12/-
up to 4	4/6/8	4/7/9	4/8/10	5/9/11	5/10/12	6/11/-
up to 6	4/5/8	4/6/8	4/7/9	4/8/10	5/9/11	5/10/12
up to 8	3/5/7	4/5/8	4/6/8	4/7/9	4/8/10	5/9/11
more than 8	3/4/7	3/5/7	4/5/8	4/6/8	4/7/9	4/8/10

Compare the adjusted dice roll to numbers on Torpedo Attack Table

- If equal to or greater than first number, then 1 hit
- If equal to or greater than second number, then 1 more hit, so inflicting 2 hits
- If equal to or greater than third number, then 1 more hit, so inflicting 3 hits

Example, Karlsruhe is firing 2 torpedo strength at two NT units of speed 3, in calm seas in weather zone C. The torpedo strength can only be divided 1 on each as no fractions are allowed. Neither torpedo attack was launched early, as the transports were not firing back. On the first transport, the roll is 1 and 3, total 4, with no modifiers. Cross reference torpedo strength 1 with speed 3, yields 5/9/11. The modified roll of 4 is lower than 5 so the torpedo attack misses. On the second target the calculation is the same, with a roll of 4 and 6, total 10, which is greater than the second number, so two hits are inflicted on the transport, which is more than enough to sink it.

**30A3. Gunfire Attack Step.**

Naval units use their gunnery strengths to make gunfire attacks on enemy naval units in this step.

Each naval unit with a gunnery strength may pick one target capital naval unit, or a target of two destroyers, or two half flotillas of small craft or transports, provided those targets are in one hex. If there is only one single destroyer, transport, or half flotilla in a hex, that may be a target, but otherwise, two such targets must be picked.

For each attack, roll 2 dice, and modify the result as follows:

- +1 Firing naval unit is code R (fire control radar)
- +1 German firing naval unit without code R (superior optics)
- +1 Target (except coastal defense) has speed rating of 5 or less
- -1 Target (except coastal defense) has speed rating of 9 or more
- -1 Rough or Stormy Seas

Cross reference the firer's gunner strength with the target's protection rating.

Note one or both may be modified if hits have been equal or greater than half protection rating.

Naval Gunnery Table														
Gunnery Strength	Protection Rating													
	F	E	D	C	B	A	1	2	3	4	5	6	7	8
up to ¼	8/-/-	9/-/-	10/-/-	11/-/-	12/-/-	-	-	-	-	-	-	-	-	-
up to ½	7/11/14	8/11/-	9/11/-	9/11/-	10/12/-	11/-/-	12/-/-	-	-	-	-	-	-	-
up to ¾	7/10/13	7/11/14	8/11/-	9/11/-	9/11/-	10/12/-	11/-/-	12/-/-	-	-	-	-	-	-
up to 1	6/10/13	7/10/13	7/11/14	8/11/14	9/11/-	9/11/-	10/12/-	11/-/-	11/-/-	11/-/-	11/-/-	11/-/-	11/-/-	11/-/-
up to 2	6/10/12	6/10/13	7/10/13	7/11/14	8/10/14	8/11/-	9/11/-	10/12/-	10/-/-	10/-/-	10/-/-	10/-/-	10/-/-	10/-/-
up to 3	6/9/12	6/10/12	6/10/13	7/10/13	7/11/14	8/10/-	8/11/-	8/12/-	8/13/-	9/14/-	9/14/-	10/-/-	10/-/-	10/-/-
up to 5	5/9/12	6/9/12	6/10/12	6/10/13	7/10/13	8/10/14	8/10/-	8/11/-	8/12/-	9/12/-	9/12/-	9/13/-	10/-/-	10/-/-
up to 7	5/9/11	5/9/12	6/9/12	6/10/12	6/10/13	7/10/13	8/10/14	8/10/-	8/11/-	9/12/-	9/12/-	8/12/-	9/13/-	9/13/-
up to 9	5/8/11	5/9/11	5/9/12	6/9/12	6/10/12	6/10/13	7/10/13	8/10/14	8/11/-	9/11/-	9/12/-	9/12/-	8/12/-	9/12/-
up to 12	4/8/11	5/8/11	5/9/11	5/9/12	6/9/12	6/10/12	6/10/13	7/10/13	8/10/14	8/11/-	9/11/-	9/12/-	9/12/-	8/12/-
up to 16	4/8/10	4/8/11	5/8/11	5/9/11	5/9/12	6/9/12	6/10/12	6/10/13	7/10/13	8/10/-	8/11/-	9/11/-	9/12/-	9/12/-
up to 21	4/7/10	4/8/10	4/8/11	5/8/11	5/9/11	5/9/12	6/9/12	6/10/12	6/10/13	7/10/13	8/10/-	8/11/-	9/11/-	9/12/-
up to 27	3/7/10	4/7/10	4/8/10	4/8/11	5/8/11	5/9/11	5/9/12	6/9/12	6/10/12	6/10/13	8/10/14	8/10/-	8/11/-	9/11/-
up to 34	3/7/9	3/7/10	4/7/10	4/8/10	4/8/11	5/8/11	5/9/11	5/9/12	6/9/12	6/10/12	7/10/13	8/10/14	8/10/-	8/11/-
up to 42	3/6/9	3/7/9	3/7/10	4/7/10	4/8/10	4/8/11	5/8/11	5/9/11	5/9/12	6/9/12	6/10/13	8/10/13	8/10/14	8/10/-
up to 51	2/6/9	3/6/9	3/7/9	3/7/10	4/7/10	4/8/10	4/8/11	5/8/11	5/9/11	5/9/12	6/10/12	7/10/13	8/10/13	8/10/14
up to 61	2/6/8	2/6/9	3/6/9	3/7/9	3/7/10	4/7/10	4/8/10	4/8/11	5/8/11	5/9/11	6/9/12	6/10/13	7/10/12	8/10/13
up to 72	2/5/8	2/6/8	2/6/9	3/6/9	3/7/9	3/7/10	4/7/10	4/8/10	4/8/11	5/8/11	5/9/12	6/10/12	7/10/12	7/10/12
more than 72	2/5/8	2/5/8	2/6/8	2/6/9	3/6/9	3/7/9	3/7/10	4/7/10	4/8/10	4/8/11	5/9/11	6/9/12	7/9/12	7/10/12

Compare the adjusted dice roll to numbers on the Naval Gunnery Table:

- If equal to or greater than first number, then 1 hit
- If equal to or greater than second number, then 1 more hit, so inflicting 2 hits
- If equal to or greater than third number, then target is sunk

The – symbol means no hits for that result.

Example: Bismarck fires on HMS Hood at range of 1 hex, in calm seas, and rolls 5 and 6, with a total 11, which is modified +1 for Radar, which results in 12. Cross reference gunnery strength of 43 targeting a protection rating of 5, yields 6/10/12. The modified roll of 12 is larger than 6, which would inflict 1 hit, is larger than 10 which would inflict a second hit, and equal or larger than 12 which sinks the Hood. After the Hood has fired in the same round, move the HMS Hood counter to lost at-sea box.

If the modified roll equals or exceeds the next number after the first one that sinks the target, the firer may attack another target in the same or a later category in the categories sequence. This can occur many times in succession. (This rule applies to gunnery, but not to torpedoes).

Example: Bismarck fires on the cruiser HMS Emerald at range of 1 hex, in calm seas, and rolls 5 and 6, with a total roll of 11, which is modified +1 for radar, and results in 12. Cross reference Bismarck gunnery strength of 43 targeting Emerald protection rating of 2, yields 5/8/11. A modified roll of 8 is sufficient to sink the Emerald. The modified roll is equal or greater than the next number, 11, so Bismarck may fire upon another cruiser, or some other vessel or flotilla further down the list of categories, that is destroyer, small craft, or transport. The next target is a pair of destroyers of protection rating B and speed rating 8, the table yields 4/7/10. Bismarck rolls 10, modified +1 = 11, it will sink both destroyers having achieved 7 or more, and equals or exceeds the next number 10, so may pick yet another target, destroyer or less. The next shot on another pair of destroyers of protection rating B and speed rating 8, rolls 8, modified +1 to 9, which sinks both those destroyers, but does not permit firing on another target as 9 is less than 10.

#### **30A3a. Radar Damage**

If shooting with a naval unit that has radar, a roll of double 1 (an unmodified 2) disables that radar. The radar may be repaired by spending 90 naval movement points in a friendly in-supply functioning port. The radar may also be repaired at-sea, in calm or rough sea conditions, in the initial phase (friendly or enemy) by rolling 6 on one die roll. One repair attempt may be made for each naval unit each initial phase.

German ships with damaged radar still receive the +1 shooting modifier at identification range (*because of superior range finding optics*).

#### **30A4. Damage Step**

All hits are implemented in this step, after all gunnery and torpedo attacks in the current round have been resolved.

#### **30A5. End of Combat Step.**

If either one player has no forces remaining in surface naval combat (such as having all the naval units of his naval group sunk), the combat ends.

If the enemy has faster naval units that have longer range guns, it is honorable to skuttle your naval units rather than fight a hopeless battle over potentially many more rounds of combat and it is easier to pick up survivors from a skuttling ship than a burning hulk.

The naval units remaining in the combat (counting only units that were initially in the combat or that have maneuvered during the combat, but not counting those that have left the combat – see below) that can either observe an identified enemy, or are observed and previously identified by an enemy, be that observing or by radar, are the combatants.

If some combatants on both sides can observe each other (visibility or radar), go on to the maneuver step.

If only combatants on one side observe the other, that side may decide to continue the combat with a maneuver step (next), or decide to leave the combat (see below).

If neither side can observe the other, both must leave the combat (see below).

#### **30A6. Maneuver Step.**

All combatants, and all naval units within 5 hexes of any combatants, including submarines, may maneuver as follows:

First, determine the speed of each of the naval groups. The speed of a naval group is the speed factor of the slowest naval unit in the naval group. Naval groups may split so slower naval units do not hinder faster naval units. Naval groups may also form, per the usual rules of naval groups, to create slower naval groups.

Remember that capital ships with damage equal to or exceeding half their protection rating have their speed factor halved. Destroyers and small craft in storm conditions have their speed rating halved.

Each side determines its fastest naval groups. The side with the fastest naval group has the speed advantage. If the fastest opposing naval groups have equal speed, the speed advantage is tied.

The side with the speed advantage may maneuver all its naval groups that are faster than the fastest enemy naval group up to 3 naval movement points and those units will maneuver last in the maneuver step.

The side that does not have the speed advantage finds all its naval groups that are faster than the next fastest enemy naval group. All those naval groups may maneuver 2 naval movement points.

If both sides have naval groups of the same speed as the fastest naval group that does not have the speed advantage, all naval groups of that speed may maneuver 2 naval movement points.

All remaining naval groups may maneuver 1 hex (which may have a regular cost 1 or 2 naval movement points).

The sequence of movement is from the slowest groups to the fastest.

If the speed advantage is tied the fastest naval groups on both sides may maneuver up to 3 naval movement points, while all other naval units maneuver up to 1 hex.

If enemy naval groups have the same speed, dice to determine who maneuvers first, roll 2 dice each – The side with the higher total must maneuver first – Re-roll ties.

**Example** The Axis has naval groups present of speeds 9, 8, 6, 4½, 4 and the Allies has naval groups present of speeds 7, 6, 4. The Axis groups of speed 9 and 8 are faster than the fastest Allied naval group of speed 7, so the Axis groups of speed 9 and 8 will maneuver last and may maneuver up to 3 naval movement points. The fastest Allied groups of speed 7 exceed the next fastest Axis speed of 6, so they will be sequenced next before the fastest Axis units and may maneuver up to 2 naval movement points. All the other naval units may maneuver 1 hex. The groups of speed 4 maneuver first and must dice to determine the order in which they maneuver. The Allied groups of speed 4½ may next maneuver 1 hex.

**Example** The Axis has naval groups present of speeds 9,8,6,5,4, and the Allies has naval groups present of speeds 8,6,5. The Axis naval groups of speed 9 may maneuver 3 naval movement points and maneuver last. All the naval groups of speed 8 may maneuver 2 naval movement points earlier and must dice to determine the sequence of maneuver. All other naval groups may maneuver 1 hex, starting with the groups of speed 4. The naval groups of speed 5 (and then 6) will dice to determine the sequence of moving.

After all the naval groups within 5 hexes of the combatants have maneuvered or chosen not to maneuver, conduct the next round of combat at the new ranges.

#### **30A6a. Maneuver costs double plus penalty**

During naval combat maneuver, all units that maneuver must pay double the regular cost of the maneuvers they make in actual naval movement points.

**Example:** A naval unit in one round of naval combat, being one of the slowest in the combat, is permitted to maneuver just 1 hex. It maneuvers into a coastal hex, which would normally cost 2 naval movement points. Since the maneuver is in naval combat, it costs 4 naval movement points.

If, during a round of combat, any naval units choose to maneuver the full 3 naval movement points, they must expend a further 9 naval movement points penalty, making the fastest maneuver in combat cost a total of  $(3 \times 2) + 9 = 15$  naval movement points. A naval unit that could maneuver 3 naval movement points, but which opts to maneuver only 2 or 1 or 0 naval movement points, does not pay the penalty of 9 naval movement points.

Keep track of the naval movement points each unit uses during combat. The non-phasing naval units have their combat movement points counted as consumed against their movement allowance for the next friendly movement phase. Consuming naval movement points in combat may force a low fuel situation or eventually prevent naval units from maneuvering further.

#### **30A7. Phase Change.**

At end of a maneuver step, the phasing player may declare that the current movement or exploitation phase is ended. No further movement of ground, air or naval units are permitted after such a declaration and the naval combat is suspended.

At end of a maneuver step, the phasing player may request that the combat be suspended, to be resumed in the next movement or exploitation phase. The non-phasing player may agree to immediate suspension or suspension after 1, 2 or 3 more rounds of combat. The non-phasing player may not refuse suspension and the phasing player may not withdraw the request.

While the naval combat is suspended, no naval units (on either side) may move within 8 hexes of any of the combatants in the last maneuver step of the naval combat, until the naval combat is resumed in another movement or exploitation phase.

Resumption of the naval combat must happen in the following movement or exploitation phase. The phasing player of that phase decides when in the phase to resume naval combat.

#### **30B. Coastal Defenses.**

Some ground units may engage in surface naval combat with enemy non-submarine naval units: These units are known as coastal defenses (CDs). A CD unit has two sides, one showing its normal ground unit ratings, and the other its ratings as a notional naval unit. (As an identification aid each CD unit has 'CD'



featured prominently in the unit's ID on both sides of its counter.) When a CD unit engages naval units in surface naval combat, use the naval unit side of the counter.

A CD unit in a hex exerts a fire zone into the hex they occupy and every adjacent all-sea or coastal hex during non- typhoon sea conditions. Special: For CD purposes, two adjoining coastal hexes are not adjacent if an all-land hexside lies between them.

Surface naval combat between CD units and the naval units in an enemy non-submarine naval group is initiated when the naval group does one of the following:

- moves to or expends naval movement points in a hex in the fire zone of the CDs.
- starts a friendly movement or exploitation phase in a hex in the fire zone of the CDs.

Resolve surface naval combat involving CD units using the procedure of Surface Naval Combat with the following modifications.

- Naval units may not make torpedo attacks on CDs.
- Naval units making gunfire attacks on camouflaged CD units inflict 1/2 hit of damage per naval gunfire hit achieved.

CD units in naval combat are camouflaged until exposed. A CD unit is exposed after it attacks any enemy naval unit. Also, all CD units in combat are automatically exposed when the naval units in the combat first enter the hex of the CD.

Some CD units have torpedoes.

CD units may be temporarily disrupted due to bombing and surface naval combat. When a CD unit takes disruption hits equal to one half or more of its protection rating it has its gunnery strength halved. When a CD unit takes disruption hits equal to or greater than its protection rating it has its gunnery strength reduced to 0.

All disruption hits to CD units are temporary, and removed at the start of each friendly initial phase, provided the CD unit is in-supply.

### **30C. Submarine Naval Combat.**

When submarine naval combat is initiated, it always starts with the submarine force in the same hex as the surface force.

In submarine combat, surface naval units use their ASW strengths to attack submarine naval units, and submarine naval units use their torpedo (and optionally, their gunnery strengths) to attack enemy naval units.

Follow these steps to resolve the combat within a round.

#### **30C1. Preparation Step.**

Both sides simultaneously and in secret separate their forces as follows:

The surface side has

- Main body: All naval units without code A in the hex.
- Screen: naval units with code A that will screen the main body.
- Search: naval units with code A that will search for submarines in the hex beyond the screen.

In the event that there are no ships for the main body, all the ASW naval units in the hex must search.

Each operative air unit not on another mission, either on a friendly carrier in the main body, or within half its printed range at the moment of the combat, may fly on demand an ASW air mission to attack the enemy submarines. Air units on ASW air mission contribute ASW factors to both the searchers and the screen as follows:

<b>Air units on ASW air mission</b>	
Tactical Bombing Factors	ASW Factors
less than 1	0
1 and up to 2	1
up to 4	2
up to 8	3
up to 16	4
more than 16	5

Example: The surface side has four destroyers each with code A2 in the hex. The owner decides to put one destroyer (A2) to search and three destroyers (three A2 = A6) in the screen. Two air units fly an ASW air mission to the hex bringing 1 and 2 tactical bombing factors, so a total of 3, which contributes A2 to both the screen and the search. Thus, the total for the screen is (A6 naval + A2 air =) A8 and the search (A2 naval + A2 air =) A4.

The submarine side has

- Submarines attacking the screen and the search
- Submarines attempting to penetrate the screen to attack the main body
- Submarines in the hex not attacking this turn (conserving their torpedoes for later).

The submarine player decides if his units will attack as half or full flotillas. Each full flotilla may be divided into two half flotillas by flipping the counter and adding an identical one to the map. The reverse process is also permitted.

In some scenarios, single submarines may be present. One, two or three single submarines count as one half flotilla. Add up their torpedo factors and use the lowest protection rating (later letter in the alphabet).

**30C1a. ASW Combat Resolution.**

Each ASW attack will be resolved with a roll of two dice, modify the roll as follows:

- -1 during rough or stormy seas
- -1 if attacker is Japanese or a minor nation (e.g., Netherlands, Norway, Denmark...)
- +1 if the attacker is Allied from 1943 onwards

Consult the Anti-Submarine Warfare ASW Table.

Anti-Submarine Warfare ASW Table							
Modified Dice Roll	ASW Factors						
	1	up to 2	up to 4	up to 6	up to 10	up to 15	more than 15
12+	S2 T2	S2 T3	S3 T3	S4 T4	S5 T5	S6 T6	S7 T7
11	S2 T1	S2 T2	S2 T3	S3 T3	S4 T4	S5 T5	S6 T6
10	S1 T2	S2 T1	S2 T2	S2 T3	S3 T3	S4 T4	S5 T5
9	S1 T1	S1 T2	S2 T1	S2 T2	S2 T3	S3 T3	S4 T4
8	S1	S1 T1	S1 T2	S2 T1	S2 T2	S2 T3	S3 T3
7	T1	S1	S1 T1	S1 T2	S2 T1	S2 T2	S2 T3
6	-	T1	S1	S1 T1	S1 T2	S2 T1	S2 T2
5	-	-	T1	S1	S1 T1	S1 T2	S2 T1
4	-	-	-	T1	S1	S1 T1	S1 T2
3	-	-	-	-	T1	T1	S1 T2
2	-	-	-	-	-	-	T1
1 or less	-	-	-	-	-	-	-

The possible results are as follows:

-: No Effect. The attack does not damage the submarine. If the submarine was attempting to penetrate the ASW screen to attack the main body, the penetration attempt is successful.

S#: # Half Submarine Flotillas Sunk. The number following the S is the number of half submarine flotillas sunk. A full flotilla, with one sunk, receives 1 hit of damage (flipping it to its half flotilla side).

T#: # Submarine Half Flotillas Turned Back. The number following the T is the number of half submarine flotillas turned back. This has no effect on submarines attacking naval units in the ASW screen or search vessels. Attempts by submarines to penetrate the screen to attack the main body are affected: In the case of an odd number, a full submarine flotilla splits into two half flotillas, with one half flotilla successfully penetrating the screen and one being turned back.

**30C2. Search Firing Step.**

Search vessels fire ASW on the submarines attacking the screen and submarines not attacking. Implement results immediately.

**30C3. Submarines Attack Screen**

Remaining submarines, attacking the screen and the search, fire their torpedoes.

Resolve torpedo attacks by submarines on naval units in the ASW screen and search vessels using the torpedo attack procedure described in surface combat above. Implement results immediately.

**30C4. Screen Attack Submarines Step**

Screen vessels fire ASW on the submarines attempting to penetrate the screen. Implement results immediately.

**30C5. Submarines Attack Main Body Step.**

Each submarine which penetrated the ASW screen may torpedo any vessels in the main body.

Use the torpedo attack procedure described in the ASW step to resolve these attacks. Implement results immediately.

Optionally, submarines which penetrate the ASW screen may use their gunnery strengths to make gunfire attacks on naval units in the enemy main body and the screen. In that case, naval units in the main body and the screen (but not the search) may simultaneously make gunfire attacks on the submarines in return. Resolve these attacks using the gunfire attack procedure described in the surface combat rules and apply the result simultaneously.

### **30C6. End of Combat Step.**

If either player has no forces remaining in submarine naval combat (such as having all the naval units sunk), the combat ends.

### **30C7. Maneuver Step and Phase Change.**

The same rules as the surface maneuver step and phase change apply.

Air units on the air ASW mission, provided they do not exceed

Then the submarine combat reverts to step 1 for the next round of combat. Remember to record the naval movement points consumed.

### **30D. Simultaneous Surface and Submarine Combats**

If players have surface naval units fighting each other with submarines within 5 hexes, conduct rounds of surface combat and submarine combat alternately, but with the surface maneuver step delayed so it happens with the submarine maneuver step.

It is possible that the ASW naval units get sunk in a surface combat round before the start of the next submarine combat round.

Japanese submarines with long lance torpedoes may fire at naval units at 1 hex range from a hex that does not contain any ASW vessels. However, to do so, for any particular target hex, they must fire first at vessels in the target hex with ASW capability, before targeting other vessels. This firing reveals the location of the submarine before the maneuver step. The move of the submarine is written down in secret and revealed after nearby ASW vessels have moved, which may give the submarine a chance to escape.

If CDs are involved too, apply them in the surface combat.

### **30E. Leaving Naval Combat.**

The non-phasing naval units that leave the combat must immediately perform, subject to the rules of naval movement and not doubling the movement costs, one of the following moves:

- Move into a friendly or neutral port within 15 naval movement points, provided it does not move into a combat zone of an enemy naval unit, and take no further action during the player turn.
- Return to the patrol center to resume the sea patrol mission, provided it does not move into a combat zone of an enemy naval unit.
- Return to the patrol center to resume the raiding mission, provided it does not move into a combat zone of an enemy naval unit. In this case the movement must be evading, not going into any coastal hexes, and is not revealed to the enemy.
- If it was previously on the raiding mission, it may, provided it does not move into a combat zone of an enemy naval unit, return to the patrol center, and assume the sea patrol mission using regular movement costs, which may include coastal hexes. In this case the location of the patrol center is revealed to the enemy.
- Remain where it is, not perform another sea patrol this player turn, but may later, if eligible, maneuver in a combat. This might be the only option possible, if the presence of enemy naval combat zones prohibits the other options.

Until naval combat is completed, the phasing naval groups that have left the combat remain stationary. When the naval combat is completed, they resume (or begin) naval movement. If they wish to then resume combat, they will have to perform a further sea interception mission to locate an enemy.

Again, remember to record the naval movement points consumed while leaving the combat.

## **Rule 31 Special Naval Rules**

### **31A. Scuttling In-Port.**

When an enemy ground unit gains ownership of a hex containing naval units in-port, the naval units there must try to escape to sea (if possible) or be scuttled:

The owning player rolls one die for each capital ship and each half flotilla attempting to escape. Note that the two half flotillas making up a full flotilla are rolled separately. On a roll of 1 through 4, the capital ship or half flotilla escapes to sea (and is placed at-sea in the nearest coastal hex which maybe the same hex as the port). On a roll of 5 or 6, the capital ship or half flotilla fails to escape and is scuttled to prevent its capture by the enemy.

When a naval unit is scuttled, remove it from play.

### 31B. Carriers and Air Units.

Code C air units may start air missions from and return from air missions to code C naval units.

Code F air units may start air missions from but not return from air missions to code C naval units.

Code S air units may start air missions from and return from air missions to code S naval units.

No air units may start air missions from nor return from air missions to naval craft in storm conditions.

An undamaged carrier has an airbase capacity as shown by the naval unit code on its counter; each hit of damage on the carrier reduces its airbase capacity by 1. For example, the Axis light carrier Ayujo has naval unit code C2, signifying that it may base up to two code C or F air units when it is undamaged: If this carrier receives a hit of damage, its airbase capacity would be reduced to 1; and a second hit would reduce its airbase capacity to 0.

When a carrier's airbase capacity is reduced due to damage, immediately eliminate any air units there in excess of the carrier's capacity; randomly select which air units are eliminated.

### 31C. Naval Resource Point Costs (Optional Rule)

Each replenishment for a naval unit that is low on fuel costs 1 resource point. *[When Europa Economics Rules are written, this may change.]*

For replenishment in-port the resource point must be in the port.

Naval units that are going to perform sea replenishment for naval units low on fuel must load resource points before sailing, which are consumed as they replenish. Reminder, each resource point is 1 RE of cargo.

The Italians were notoriously short of fuel for their naval units, so every replenishment for them costs 1 resource point.

### 31D. Naval Reliability (Advanced Rule)

Every naval unit that starts a movement phase at-sea or leaves port for the first time in a player turn checks for reliability by rolling 2 dice. On a double 1 (total 2) the naval unit, if at sea takes one hit damage, or if leaving port must return in-port and remain there until the start of the next friendly player turn.

## Rule 32 Naval Reinforcements

During the course of the game, players receive naval reinforcements, may replace and repair naval units; and must transfer naval units. All these activities are performed during the player's initial phase. The various activities occur as detailed below.

### 32A. A. Reinforcements.

Players receive naval units and naval repair points (NRPs) as reinforcements as listed in the orders of battle. Reinforcements unable to enter play for any reason are eliminated instead.

#### 32A1. Naval Units.

A player places his naval unit reinforcements during his initial phase, in-port (unless otherwise specified) at the location specified by the order of battle.

#### 32A2. Naval Replacement Points (NRP).

A player receives NRPs during his initial phase, at the location specified by the order of battle.

Players use NRPs to replace sunken naval units and to repair damaged naval units. A player may accumulate unspent NRPs from turn to turn. Use NRPs counters until they are spent.

### 32B. Transfers.

The orders of battle occasionally require the players to transfer naval units to other (out of play) theaters of war.

Transfer (remove from the game) the specified naval unit if it has not been sunk.

## Rule 33 Naval Repair/Refit

Each Great, Major or Standard port has the ability to repair or refit naval units.

The capacity of each type of port in terms of the number of naval units that may be under repair or refit in that port.

- Great or Major = 3
- Standard = 2

The phasing player may use up to the capacity of the port to repair hits of damage from naval units, to refit naval units, to repair damaged landing craft or repair port coastal defenses.

Only Great or Major ports may repair or refit Battleship or Carrier naval units.

### 33A. Repair.

Players may spend NRPs to replace sunken naval units, to repair damaged naval units, and to receive mine points during their initial phase.

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In his initial phase the owning player decides which naval units will be under repair and places a repair marker on the unit. While under repair a naval unit may not initiate any mission and may not use any of its combat strengths. During the exploitation phase remove one hit from the naval unit. Naval units under repair may NOT attempt to escape if the port they are in becomes enemy owned, and they become the property of the enemy.

1 NRP converts into 5 mine points. (Mine points cannot be converted back to NRPs.) Place the mine points at any friendly-owned port in regular general supply. It costs one naval repair point to repair one hit of damage on a Capital Ship. Only one point may be repaired on a capital ship each turn.

1 NRP rebuilds one sunken single destroyer, one sunken transport, or one sunken half flotilla of small craft or submarines.

1 NRP repairs one half flotilla small craft naval unit to full-strength.

1 NRP repairs one single destroyer unit to a double destroyer unit.

To be repaired, the naval unit must be in-port at a friendly-owned port that is also a major city hex. It may not move or provide naval ground support in the turn it is repaired.

### **33B. Refit.**

The OB specifies when a particular type of naval unit must be refitted. In the following movement phase the owning player selects a unit of that type, and, if necessary, initiates a sail mission to a port that can carry out the refit, marking the unit with a refit marker. While under refit a naval unit may not initiate any mission and may not use any of its combat strengths. The refit is complete after 4 turns, note on a piece of paper when the unit will return. Naval units under refit may attempt to escape if the port they are in becomes enemy owned.