

General Unit Information

- The game picks one unit and provides it reinforcements (increased strength). Once it is fully reinforced (full strength) it then spends points to upgrade the unit. If there are not enough production points to upgrade the unit it will try to reinforce other units.
- Units reinforce 20% of their max a turn.
- Total combat value is approximately attack/def type * strength * experience * effectiveness * (other terrain/weather bonuses obviously).
- Not all losses are strength losses, some losses are converted to effectiveness losses.
- Changing a Unit's advancement.
 - Must be in supply.
 - Land units cost 1 PP per STR.
 - Air units cost 1 PP per STR and 2% Experience

How to tell if a unit is "good."

- Strength and Effectiveness are not good measures of how "good" a unit is.
- Strength measures how much damage a unit can take.
- Effectiveness only measures how the unit is performing according to its maximum.
- To find how "good" a unit it you have to look at its attack, defense, and other values.
- Total combat value is approximately attack/def type * strength * experience * effectiveness * (other terrain/weather bonuses obviously).

Reinforcement/Upgrades

- PPs spent on reinforcement upgrades is the lessor of stockpile and the amount set for Reinforce/Upgrades.
 - Step #1 Check if there are enough PP to reinforce unit #1.
 - Step #2 If yes, reinforce unit #1 and go to Step 3. If not go to step 4.
 - Step #3 Check and see if there is enough PPs to upgrade unit #1. If yes upgrade, if not go to step 4.
 - Step #4 Check if there is enough PPs to reinforce unit #2.
 - Step #5 Repeat

Reinforcement Cost Modifiers	
Unit Type	Reinforcement Cost a
Land	60%
Air	40% b
Naval	25% c

a Percentage is per strength point based on the original purchase production cost

b Air units do not require manpower to repair

c Naval units require a port size 5 or greater to repair

Reinforcement and Upgrade Order		
Condition	Type	Order a
Priority	Naval	1st
Priority	Land	2nd
Priority	Air	3rd
Normal	Naval	4th
Normal next to enemy	Land	5th
Normal not next to	Land	6th
Normal	Air	7th
Reinforcements off	Naval, Land,	Doesn't reinforce or

a All units will be repaired then checked for upgrades in the order of lowest strength first per category

Land Units

- Out of supply units have -10% effectiveness, lose 20% of strength.
- With 1 supply level -10% effectiveness.
- With 2 supply level 50% operation points.
- Putting a unit in Garrison saves Production, Logistics, and Supply. They attack at 50% and move a maximum of 1 hex. If you do not have enough production in your stockpile, you might not be able to get it out of garrison status.
- Any land unit will protect against saboteurs in their hex and the surrounding 6 hexes.
- Combat Odds (According to game creator)
 - 1:1 - 2:1 favors defender but in some strong hold positions just throwing men at the problem works.
 - 3:1 slightly favors attackers.
 - 4:1 more favors attackers.
 - 5:1+ really favors attackers.

Default Values for Land Units ^f								
Attribute	Headquarters	Infantry	Cavalry	Marine	Paratrooper	Mountain	Mechanized	Armor
Strength	10	10–36	20	10	20	20–30	30	30
Firearms	4	4	3	5	5	4	4	3
Guns	3	2	1	2	1	1	3	1
Artillery	2	3	2	3	2	3	2	4
Tanks	0	0	0	0	0	0	2	5
Anti-Air	2	1	0	1	1	1	2	2
Defense	5	5	4	6	5	5	6	7
Range	1	1	1	1	1	1	1	1
Operation Points	4	5	7	5	5	5	9	9
Move Eff. Cost	1%	1%	1%	1%	1%	1%	1%	1%
Combat Eff. Cost ^a	—	6%	6%	6%	6%	6%	6%	6%
Days	120	60	120	120	180	200	130	200
Production Cost	60	60–180	120	100	100	180	300	360
Logistics Cost	1	1	1	2	2	2	2	2
Oil Use ^d	0	0	0	0	0	0	2	2
Unit Supply Level	3	3	3	3	3	3	3	3
Landing Craft Cost ^e	1	1	1	1	1	1	2	2
Movement Cost ^b	1%	1%	1%	1%	1%	1%	1%	1%
Combat Cost ^c	6%	6%	6%	6%	6%	6%	6%	6%

^a Defending land units use 50% less effectiveness

^b The amount of effectiveness lost per operation point

^c The base costs per attack; defending units use 50% of the listed amount to defend

^d Units with 50% strength or less have a 50% chance of not using oil when moving or attacking

^e Landing craft cost is per point of strength the unit currently has

UK infantry corps large: +1 oil use

UK/USA mechanized and armor corps large: +1 oil use, +1 operation point

USA infantry corps large: +1 tanks, +1 oil use, +1 operation point

USA marine division: +5 strength, +1 firearms, +1 tanks

China army and mechanized -1 artillery

China armor -1 artillery, -1 tanks

USSR infantry army: +6 strength, -1 artillery

USSR mechanized: +1 artillery, and tanks

Japan army: -1 guns

Japan mechanized: -1 guns Japan armor: -1 tanks

Marines

- Marine units do not suffer damage when invading next to enemy units. Resist invasion landing damage.

Paratroopers

- Parachute Corp. Must start at airfield. Have 100% or more Effectiveness. Have Clear weather. Not next to enemy Unit.
- When landing they lose 50% of their operation points and 24% of their effectiveness. They lose an additional 8% effectiveness for each enemy land unit next to their landing spot.

HQ's

- HQ's improve combat ability based upon General at HQ.
- HQ's increase supply by +1 level (to max 8) within 5 hex radius.
- HQ's increase effectiveness recovery by +4% to units within 5 hex range.
- HQ's can be in a transport, off shore, and still use its abilities for land units.
- Generals can be killed.
- Combat—How well each general is at inflicting damage on the enemy and reducing damage to their forces
- Mobility—The chances of retreating
- Tenacity—Intensity of combat and the chance a defender surrenders in low attacks with a less than 34% retreat chance

Air Units

- Base Range (specific nationalities can alter this).
 - Fighters and Ground attack: 6
 - Tactical Air: 10
 - Strategic: 14
- Out of supply units have -10% effectiveness, lose 20% of strength.
- With 1 supply level -10% effectiveness
- With 2 supply level 50% operation points.
- Air units get 2 operation points on your turn and 2 operation points on opponents turn for use in interceptions. They use oil if they fly on your turn and if they fly on your opponent's turn.
- Air units must be in support mode and have naval targeting to perform naval interceptions.
- Only the first air strike on a land or air units may cause strength loss. Land units that are unknown never suffer a strength loss. Each air strike on a land unit can also interdict its movement, making it lose 33% of its operation points

Default Values for Air Units ^c				
Attribute	Air Superiority Group	Ground Attack Air Group	Tactical Air Group	Strategic Air Group
Strength	20	20	20	20
Air Combat	8 ^b	4	5	6
Tactical	2	8	5	3
Strategic	0	1	5	8
Naval Air	1	3	2	1
Anti-Sub	1	3	3	3
Anti-Air	2	2	2	2
Defense	7	4	6	6
Range	6	6 ^a	10	14
Air Move Eff. Cost	8%	8%	8%	8%
Combat Eff. Cost	6%	6%	6%	8%
Days	180	120	150	180
Production Cost	250	250	300	400
Logistics Cost	3	3	3	4
Oil Use	2	2	3	4
Unit Supply Level	3	3	3	3
Rail/Transport Cost	15%	15%	15%	15%
Combat Cost	6%	6%	6%	8%

^a UK, USA, and Japan ground attack air group: +2 range

^b An air superiority unit has 1/3rd their air combat value when flying as a bomber.

^c Air units only require manpower to build, not to reinforce.

USA strategic bomber: +2 base range

Fighters

- An Air superiority unit has 1/3rd their air combat strength when flying as a bomber.
- Air superiority units automatically intercept and escort within their range if in support mode, if they have 50% strength or more.

Air Transport

- Any unit that is out of supply may call an air transport to drop supplies to it within 6 hexes of any air group
- An unescorted air transport is always shot down if the defender has air superiority groups in range in support mode.
- An escorted air transport mission has a high chance of success depending on air-to-air combat results.

Naval Units

- Out of supply units can't attack and defend at 50% effectiveness.
- Each naval unit uses 1 oil except battle groups with Heavy Warships which uses 2.
- Surface fleets will not succeed in pursuing a carrier fleet.
- Naval units get 2 operation points on your turn and 2 operation points on your opponent's turn to use for interceptions.
- Naval Loops, such as West Coast to Australia, only take 1 turn.
- Before you move a fleet make sure you are in the correct mode Fleet or Raider. Fleet if you want combat, Raider if you want to avoid combat.
- Night Movement
 - Must start in port.
 - Must start with 2 operation points.
 - Move 6 or fewer hexes.
- Stacking Limits
 - No more than 20 units per fleet.
 - No more than 5 Submarines per fleet.
 - No more than 6 CVs per fleet.

Default Values for Naval Units							
Attribute	Submarine Group	Patrol Group	Destroyer Group	Cruiser Group	Battle Group	Carrier Group	Light CV
Strength	3	2	3	3	4	3	3
Air Combat	—	—	—	—	—	4	2
Tactical	—	—	—	—	—	3	1
Strategic	—	—	—	—	—	2	1
Naval Air	—	—	—	—	—	8	4
Surface	7	2	4	6	9	4	4
Anti-Sub	0	1	4	2	2	4	2
Anti-Air	0	0	3	3	5	4	1
Defense	6	2	4	5	8	5	4
Range	5	1	1	1	1	3	3
Move Eff. Cost	0%	0%	0%	0%	0%	0%	0%
Combat Eff. Cost	8%	8%	8%	8%	8%	8%	8%
Days	100	90	210	240	700	540	400
Production Cost	80	100	180	270	400	480	270
Logistics Cost	0	0	0	0	0	0	0
Oil Use	1	0	1	1	2 ^b	1	1
Supply Level	5 ^a	3	3	3	3	3	3
Movement Cost	0%	0%	0%	0%	0%	0%	0%
Combat Cost	8%	8%	8%	8%	8%	8%	8%

^a Submarine groups with long-range advancement will have an 8-unit supply level

^b Battleships with Warships technology use one less oil.

UK CV and CVL +1 defense

USA CVs +1 defense, +1 AA

Japan CV -1 defense

Japan CVL -1 defense

Japan CA +1 surface

Japan has two special battle groups with +1 strength (Yamato and Musashi)

Aircraft Carriers (CVs)

- Range of 3
- Max air strength is double CV strength.
- If more than half strength damage, cannot fly planes.
- CVs cannot attack if they have a transport in the fleet.

Invading

- Z key highlights invasion hexes.
- Beachhead Supply: Fleet acts as supply truck for every land unit within 1 hex. Uses all remaining operation points. Puts fleet into “fleet mode.”
 - Cannot do Beachhead Supply if it contains transports with land or air units.
- Invaders will take 1 strength for every 10 strength points of enemy land units around the hex they are invading.
 - If the weather is not clear this is tripled.

Blockading.

- Single island hex blockaded by 1 naval unit.
- Larger island ports blockaded by 3 naval units.
- Friendly naval units next to a port prevent a blockade.

Pursuit Combat

- Allows fleet with no operation points to still perform an attack.
 - Moving fleets must be in fleet mode.
 - Not have been intercepted.
 - Not end their move in port.
 - Not combine with another fleet.
- Any combat is at 50% combat value.

Surface Combat

- Surface combat fleet attacking a carrier fleet has a much smaller chance of being able to engage it.
- Surface combat uses the surface factors of a fleet. Each surface factor has a 25% chance to score a hit.
 - Each hit has 2 chances to score a critical hit which can cause 4x the initial damage.
 - A ship's defense check can halve the damage.
 - An experience check can reduce additional effectiveness loss from damage.
- If a defending fleet suffers more than 50% of their total maximum strength, not including transports, it will retreat to the lowest reconnaissance level sea hex within 3 hexes.
 - Fleets never retreat when attacked in port

Submarines

- Submarines have an interception/interdiction range of 5 hexes.
- Attacking a Submarine
 - Land Air units can always attack submarines regardless of what hex the submarines are in.
 - Escorts and "Sub Hunters." Sub Hunters: Fleets on a convoy route. 24 hex range. CVs add +2% bonus to escorts. Destroyers add +1% to escorts.
 - CVs and Surface units can only target a submarine if it is in a hex that is NOT all water, it must contain some land (coastal hex).
 - Submarines can be targeted if they are 1 hex away from a beach hex.

The Best use of Submarines (according to the Game developer)

- *Sub attacks on convoys should be done in a stack of 5.*
- *Move them into an area in raider mode in the ocean hexes you can't be attacked but within 1 operation point range of a potential target.*
 - *On the next turn have your battles.*
- *Use the sub to attack a suspected fleet counter that has a damaged CV. That now has a huge target profile.*
- *Or use them for convoy duty.*
- *Or use them as a threat at a port.*

Ports

- Ports size 5+ 100% protect a fleet from surface attack. Port size 1-4 get some port defense to help against surface attacks.
- Port Supply (Port Size * 20 = Amount of Strength points supplied). It cost more supply for a unit the further the port is away from a Main Supply source. Oil using units use 20% more supply.
- Port size 5+ can supply any number of naval units.
- Port size 1-4 can supply number of units equal to port size

Port Attributes			
Port Size	Naval Groups Supplied	Defensive Gun Value	Repair Ships
1	1	None	No
2	2	5	No
3	3	5	No
4	4	5	No
5	Unlimited	May not be attacked	Yes
6	Unlimited	May not be attacked	Yes
7	Unlimited	May not be attacked	Yes
8	Unlimited	May not be attacked	Yes
9	Unlimited	May not be attacked	Yes

Port Supply Effects		
Port Distance	Supply Stockpile Cost per Strength	Supply Effect with Map Supply Level 1+
0-5	1 for 1	Base + HQ bonus + map supply level x 2
6-10	4 for 3	Base + HQ bonus + map supply level x 2
11-16	2 for 1	Base + HQ bonus + map supply level x 2
17+	Can't receive supply stockpile	Base / 2 or 3%, can use supply truck Receives no reinforcements
Out of port supply stockpile	—	Base / 2 or 3%, can use supply truck Receives no reinforcements

Port distance is half of what it is in WarPlan due to each hex being four times the size of a European hex.

Air and Naval Interdiction/Interception

Air

- Air superiority units automatically intercept and escort within their range if in support mode, if they have 50% strength or more.
- Air units within 10 hexes, or less depending on their range, will intercept enemy fleets
 - if in support
 - if in naval mode
- Air units can attack enemy convoys within their range on the enemies turn.
 - Must be 50% strength and 50% effectiveness.
 - Must have naval mission selected.
 - Escorts have a small chance to damage the air raiders.

Naval

- Fleets in fleet mode will intercept enemy naval units within 5 hex range.
 - Largest Fleet will be chosen to intercept.
 - Fleets with 50% or less of their max strength will not intercept enemy fleets.
- CVs can interdict/intercept naval units, but CVs do not intercept air units.

Supply Interdiction

- Air units will conduct supply interdiction within a range of 4 hexes.
 - They must be in naval mode.
 - Must be in support.
- Naval can conduct supply interdiction within 2 hexes
 - Cannot have a transport in the fleet.
 - CVs Attack supply convoys like Air units, but of course do not need to be in naval mode.
- Units must have one operation point left from your turn to perform supply interdiction.
- The further a unit is away from a port the less chance it has of interdicting supply.
- Friendly air and naval forces automatically escort within the same ranges

Production

- Transports take 1 per strength point. Are not used up.
- Landing Craft take 1 per strength point and are expended on use.
- Supply Oilers supply an entire single fleet but can be intercepted by enemy submarines within 5 hexes. Increase entire fleet supply by +1
- Supply Trucks take 1 per 10 strength points and are expended on use. Increase unit supply by +1 effectiveness by +4%. If you used on an HQ it supplies all land and air units within 1 hex of HQ.
- Air Transport; 6 hex range, increases supply by +2, effectiveness by +4%
- No more than 25% of a country's total production and 25% of its stored oil can be traded away.

Support Units Naval						
Attribute	Transport	Landing Craft	Supply Oiler	Shipyard	Merchant Marine	Escorts
Production Cost	100	25	30	20	100	40
Manpower	10	5	1	1	10	1
Logistics Cost	0	0	1	0	0	1
Shipyard Cost	10	5	1	0	10	1
Build Days	180	90	60	400	180	210
Purchase Quantity	10	10	1	1	10	1

Support Units Land					
Attribute	Supply Truck ^c	Air Transport	Coastal Defense	Airfield ^d	Anti-Air Guns
Production Cost	30	120	20	30	15
Manpower	0	10	1	1	1
Logistics Cost	0	10	0	0	0
Build Days	90	150	120	45	90
Purchase Quantity	10	1	1	1	1

^a Minor countries will use their air transports for their land units.

^b Minor countries will use their oilers for their fleets unless they are stacked with a major power. In this case, they will use the major power's oiler.

^c Cost to use is doubled for armor, mechanized, and air units.

^d Requires unit with engineer specialty to be deployed in any location in port supply.

Diplomacy

- China is a Major power however, other nation's units can not enter its hexes.

Misc. Tables

Map Tile and Reconnaissance ^a				
Tile	Land Move	Naval Move	Air Move	Reconnaissance
Land	Yes	No	Yes	Yes
Coastal	Yes	Yes	Yes	Yes
Beach	Invasion/Disembark	Yes	No	No
Canal	No	Yes	No	No
Small Island	Invasion/Disembark ^b	Yes	Yes	Yes

^a Any hex with a port may only be entered by the enemy with a land move.

^b Marines can move from non-connecting land hexes to another that are next to each other including small islands.

Convoy Route Icons	
Import Designation	Effect
Allied	An allied minor country is sending 50% of its production and all of its unused oil.
Agreement	A country is sending resources due to a trade agreement setup or part of the scenario
Owned	Owned and controlled hexes in port supply
Conquest	Conquered resources yield only 1/3 their value while conquered oil yields the full value
Supply	This convoy is supplying a port
Import	Resources are coming into the country
Export	Resources and supplies are leaving the country to the destination
Route	Convoy route hexes for transporting resources appear on hexes that are considered water. Hovering over the icon on the map will show the name of the convoy route

Terrain Attributes ^a				
Terrain Type	Rugged	Land/Air Combat Modifier ^d	Airfield	Operation Point Cost
Depression, Alpine, Ice Sheet	—	—	No	Impassible
Plains	No	None	Yes	2
Woods	No	-5% (1.05x)	Yes	2
Forest < 50% cover	Yes	-5%	Yes	2
Forest	Yes	-10% (1.1x)	No	2
Hills	Yes	-20% (1.25x)	No	3
Mountains	Yes	-60% (2x)	No	4
Marsh	Yes	-40% (1.66x)	No	3
Swamp ^b	Yes	-40% (1.66x)	No	3
Desert	No	-10% (1.1x)	No	3
Desert (with hills)	Yes	-10% (1.1x)	No	3
Tundra	Yes	-10% (1.1x)	No	2
Jungle ^e	Yes	-25% (1.33x)	No	3
Bocage	Yes	-20% (1.25x)	No	2
Polder	Yes	None	No	2
River ^c	No	-50% (2x)	No effect	0

^a The same terrain may have different attributes depending on where they are on the map

^b Swamps are treated as forests in snow or blizzard.

^c Rivers only affect land combat if those units are attacking a hex across it. Engineer specialization reduces the penalty to -25%. In blizzard weather conditions rivers provide no defensive bonus.

^d Modifier also shown as reduced attacker combat value and defender's effective combat value due to attack reduction

^e Japan has a special ability to fight in the jungle. They ignore 80% of the jungle penalty when attacking.

Resource Attributes						
Resource Type	Naval	Land Combat Modifier	Airfield	Supply Source	Production	Oil
Port size 5-9	Repair + Protection	None	Yes	Port	None	None
Port size 2-4	Protection	None	Yes	Port	None	None
Port size 1 ^d	None	None	Yes	Port	None	None
Fortifications	None	-35% to -66%, Rugged	Some	None	None	None
Urban Large	None	-25% to -66%, Rugged	Yes	Main ^c	1-25 + Morale	None
Urban Small	None	-10%, Rugged	Yes	None	None	None
Oil Field	None	None	No	None	None	5-40
Synthetic Oil Plant	None	None	No	None	None	5
Biofuel	None	None	No	None	None	4
Airfield	None	None	Yes	None	None	None
Strategic Resource	None	None	No	None	+1%	None
Coastal Defense ^a	None	-20% Rugged	No	None	None	None
Supply Source	None	None	No	Any	None	None
Supply Depot ^b	None	None	No	Any	None	None
Minefield	Move if control	None	No	None	None	None
Loop	Movement	Movement	No	None	None	None
Iron Ore	None	None	No	None	5-40	None

^a The modifier only applies if any unit is attacking from a coastal or beach hex.

^b Extends the range of a supply chain if it is in supply itself from main or port supply or another supply depot. The supply depot chain can be extended 3 times.

^c Urban resources of 10 production or higher are main supply sources. Some other hexes might be also. Showing the supply map will show all supply sources.

^d Port with a size of 1 have a special symbol on the map of the number 1 and an airfield.

Urban—Urban hexes are considered rugged as a terrain type.

Strategic Resource—Each strategic resource a player controls increases production by +1%

Minefield—A naval unit may move through a minefield only if it controls the hex it is in. Minefields appear only on beach hexes

Weather Attributes				
Weather	Movement Effect	Land/Air Combat Modifier	Reconnaissance Level Modifier	Invasion
Clear	None	None	None	Yes
Clear (Cold) ^c	None	None	None	No
Rain	+1	-50% / 50%	-1	Yes
Rain (Cold) ^c	+1	-50% / 50%	-1	No
Heavy Rain	+2	-50% / Can't Attack	-2 only surface combat	No
Snow ^a	+1	-35% / 50%	-1	No
Blizzard ^a	+2 ^b	-50% / Can't Attack	-3 only surface combat	No
Frozen Port ^a	+2 ^b	-50% / Can't Attack	No surface combat	No

^a USSR and Finland are winterized countries that fight better when there is snow or blizzard compared to non-winterized countries. A winterized country has no snow or blizzard effectiveness penalties.

^b Fleets in water hexes that are under blizzard conditions are considered frozen and can't move.

^c Cold is defined as any month in which snow or blizzard is possible. Cold turns do not allow invasions to occur in any weather.

Unit Supply Level Effects		
Unit Supply Level	Effect on Land and Air	Effect on Naval
Zero	A unit takes an additional 10% effectiveness loss. Land units lose 20% of their strength	Can't attack, defends at 50% effectiveness
1	A unit takes an additional 10% effectiveness loss	Normal operations
2	50% their operation points.	Normal operations
3	Normal operations	Normal operations
4	Using supply trucks when in supply	Normal operations ^a
5	—	Normal operations—Submarine groups
6	—	Normal operations—Submarine groups ^a
7	—	Normal operations—Submarine groups ^b
8	—	Normal operations—Submarine groups ^b
9	—	Normal operations—Submarine groups ^b

^a Fleet in port using oilers

^b Submarine groups with long-range advancement

Oil Effects On Unit Movement and Combat			
Unit Type	Movement Oil Use	Movement	Combat
Land non-motorized	0	No effect	No effect
Land partially motorized	1	No effect	No effect
Land fully motorized	1	50% operation points ^b 3% effectiveness loss per operation point Loses 20% of their strength	Can't attack, can defend
Air	1	Can't move	Can't attack or defend ^a
Naval	0 ^c	Can't move out of port	Can't attack, can defend

^a An air unit defending over friendly territory has a 50% chance of using no oil to defend.

^b A fully motorized is a land unit that has more tank than anti-gun factors. They can't lose more than half their strength from this action.

^c Only uses oil to stay at sea

Supply and Effectiveness Recovery Table		
Map Supply Effect	Unit Supply Level	Effectiveness Recover
Base Recovery	Maximum to 3	+6%
HQ Bonus	—	+4% to units within 5 hexes
Main Supply, map supply level 1 or higher	Maximum to 3	Base + (2 x map supply level) + HQ bonus
Port Supply, map supply level 1 or higher	Maximum to 3	Base + (2 x map supply level) + HQ bonus ^b
HQ command range friendly hexes	Maximum to 3	+1 map supply level even if zero ^d
Port, no stockpile remaining, any level	Maximum to 3	Base / 2
No supply source	-1 per turn	—
Using supply truck	+1	+4%
Using beachhead supply ^c	+1	Base bonus
Weather is snow	—	-10% effectiveness recovery
Weather is blizzard	—	-20% effectiveness recovery
Impassable, blocked, blizzard blocked	0	None

^a HQ command range is 5 hexes

^b Port supply effectiveness recovery is based on the port supply stockpile available

^c A fleet may not supply an invasion if it is carrying land or air units

^d within HQ's movement range

Retreat Chance ^b	
Effect	Modifiers
Combat Odds Multiple ^a	x15%
Each Attacker Tank Factor ^a	+3%
Infiltrator Specialty ^a	+5%
Each Defender Tank Value	-6%
Each Defender Gun	-6%
Defender Experience	-(25% x defender experience%)
Each Value Difference in Mobility of Generals	-2% / +2%

^a All attacker values are halved when attacking into rugged terrain

^b All values are based on the unit's effective combat fighting power not absolute values

Tenacity Resist Surrender ^{a b}	
General Value	Chance of Surrender
0-5	100%
6	90%
7	80%
8	50%
9	10%
10	5%

^a When retreat chance is less 34% and a defender is surrounded

^b Each tenacity value gives a 10% chance a unit will retreat instead of shatter when facing 7:1+ odds

Target Profile Values			
Naval Groups	Air Attack	Surface Attack	Submarine Attack
Carrier group	6	1	6 or 9 if damaged
Battle group	4	2	4
Cruiser group	2	3	2
Patrol group	1	3	1
Submarine group	1	1	1
Transported Unit ^a	4	1	4

^a Land and air units being transported take triple damage from attacks

Reconnaissance Table	
Condition	Reconnaissance Level Modifier
Clear	None
Rain	-1
Heavy Rain	-2
Snow	-1
Blizzard	-3
Night Move	Spotting chance halved
ID Level of the enemy fleet	+0 to +3
Raider mode	-1

Naval Combat Permission Table

Attacker Fleet	Defender Fleet	Defender Location	Attack Possible
Carrier	Carrier	Any	Yes Clear, Cold, Rain, Snow
Carrier	Surface	Any	Yes Clear, Cold, Rain, Snow
Carrier	Sub	Sub on or next to non-ocean hex	Yes Clear, Cold, Rain, Snow
Carrier	Surface	Night Mission at sea	No
Surface	Carrier	At sea	Lower chance to spot
Surface	Carrier	In Port	Yes ^a
Surface	Surface	At sea	Yes
Surface	Surface/Sub	In Port	Yes ^a
Surface	Submarine	Sub on or next to non-ocean hex	Yes
Surface	Submarine	Sub on or next to non-ocean hex	No
Submarine	Carrier	Any	Yes
Submarine	Surface	Any	Yes
Submarine	Submarine	In Port	Yes ^a

^a Only in ports size 1 to 4. Ports size 5 and higher may not be attacked

Note: No fleet can attack out of a port. It must move to a non-port hex to attack an enemy.

The hex just outside Tokyo will be a high reconnaissance level on the Axis turn. Axis fleets will have an

Interception Modifiers		
Modifier Description	Spot Number Modifier	Spot Matrix Modifier
Base Spot Number	10	
Fleet and air unit distance to enemy	-1 per hex distance	
Enemy naval fleet in raider mode	-1 ^a	
Enemy naval fleet ID level	+0 to +3	
Enemy naval fleet next to Friendly hexes	Halves distance per hex	
Every 3 air strength factors		+1%
Each enemy or friendly naval group		+1%
Enemy naval group night mission		50% of final result
Fleet is transporting land or air unit	+2	

^a Does not apply when the fleet is in port.

Search and Spotting Matrix											
Reconnaissance Level	Very Low ^c		Low		Medium			High		Very High	
Spot Number	0	1	2	3	4	5	6	7	8	9	10+
Spot Chance ^{a b}	1%	2%	3%	5%	7%	10%	20%	38%	65%	90%	100%

^a Each previous attempt to find an enemy fleet has a 40% chance to get an increase in the enemy's fleet ID level to help with future searches.

^b On the enemy's turn when intercepting the spot number is based distance to the enemy fleet. On the moving player's turn the spot number is based on the hex's reconnaissance value.

^c Fleets in a hex with *reconnaissance very low* will be invisible on the enemy turn.

Interception and Pursuit Table				
Moving Fleet Mode	Enemy Fleet Mode	Enemy Air Intercept	Enemy Naval Intercept	Pursuit Combat if Intercept Fails
Raider	Raider	Yes full combat	No	No
Raider	Fleet	Yes full combat	Yes full combat	No
Fleet	Raider	Yes full combat	No	Yes half combat
Fleet	Fleet	Yes full combat	Yes full combat	Yes half combat

Merchant Marine and Escorts			
Escorts in Zone	Protects Merchants Fully	Escorts in Zone	Protects Merchants Fully
1	5	6	30
2	10	7	35
3	15	8	40
4	20	9	45
5	25	10+	Any amount

Combat Effectiveness Loss						
Unit Type	Attacking	Defending	Damage Conversion Loss	Convert Damage	Additional	Secondary Loss
Land	6%	3%	3%	Yes 50%	No	None
Air	6% ^a	6%	2%	Yes 33%	No	None
Naval	8%	8%	2%	No	Yes ^b	Up to 4x damage
1 st naval critical chance 30%, 2 nd naval critical chance 10%						

^a Strategic bombers lose 8% effectiveness.

^b If random roll 0–100% > Experience % the unit takes addition effectiveness loss.

Trade Creation	
Country	Trade
United Kingdom	Full
Japan	Full
United States of America	Full
Soviet Union	Minors Only
China	Minors Only
All other nations	Automatic to controller