

Naval Interception Table - 22.23	
Dice	Activity Being Intercepted
1	Raiders moving to and returning from an SW box; intercepting naval forces (counter-interceptions from port).
2	Base changes, patrols, fast carrier missions, NRs of naval units, displaced naval units, naval units returning to base.
4	Sea supply, sea transports, seaborne invasions, shore bombardment, sea escort.
8	Patrols which attempt to remain in their patrol hex for the combat phase.
Modifiers	
Extrinsic factors:	
+#	Each air squadron which spots the naval activity (22.231A). Maximum +3.
+#	Each submarine on patrol within three hexes of the interception hex (22.231B). Maximum +3.
+1	Codebreaking (22.231C). Maximum +1.
If the intercepting force:	
-1	Contains slow ships and does not contain a fully operational fast carrier (22.232A).
-2	Consists of submarines (22.232B).
-2	Is based in a non-operational port (22.232C) (EXCEPTION: Submarines).
If the intercepted force:	
-1	Consists of fewer than 10 naval factors (22.232D).
+1	Is conducting a seaborne invasion or shore bombardment in its invasion hex (22.231D).
+2	Is counter-intercepted in an interception hex (22.231E).
+3	Is intercepting a transport activity from a U.S. box (22.231F).
Explanation: The number of dice rolled for naval interception is determined by the applicable situation. In the Pacific theater, the result is halved (round up).	
Patrols: Naval units on offensive patrol, including patrolling submarines, do not roll dice to counter-intercept. Instead they may move up to three hexes towards an interception hex to support a friendly naval force which has been intercepted by enemy naval forces (22.162, 22.232B).	

Naval Repair and Construction Costs - 27.721				
Status:	Damaged		New Construction	
Unit	Turns	SB	Turns	SB
Transports	immediate	no cost	immediate	1
Subs, ASW	not applicable		immediate	1
DDs, CVEs	not applicable		1	1
CAs	1	no cost	2	2
2-factor ships	2	1	4	2
3-factor ships	2	1	8	3
4-factor ships	2	1	12	4
5-factor ships	2	1	16	5

Named ships which are sunk in port may be repaired by first expending one shipbuilding point and three BRPs to raise them to damaged status, after which they may be transferred to a shipyard for repairs in the normal manner. Cruisers, destroyers and CVEs which are sunk in port are permanently eliminated.

With the exception of transports, which are repaired at no cost, one-factor naval units are never damaged.

The construction of three-factor and larger ships may be accelerated (27.7272B); the construction and repair of naval units may be deferred (27.7272C).

Only the U.S. may build CVEs.

Search Table - 22.45	
Number of search die rolls	
+1	For each friendly combat group consisting of at least ten undamaged naval factors (22.451A). (Maximum: +6).
+1	For each air squadron (22.4422). (Maximum: +3).
+1	For each previous round of naval combat. (No maximum).
+/-1	Codebreaking advantage (48.51A, 48.62).
Search results	
No search result	The enemy combat group remains hidden and may not be attacked.
One search result	The enemy combat group is found and is eligible to be attacked. Whether the combat group consists of less than ten naval factors must be revealed.
Two search results	The number of carriers, including CVEs, but not the type of carriers, in the enemy combat group is revealed.
Three or more search results	The exact composition of the enemy combat group is revealed.

Surprise Table - 22.463	
Surprise Level	Result
1	Surprise achieved. The defender does not receive a +1 DRM in air combat between attacking air units and air units flying combat air patrol.
2	Anti-aircraft defenses less effective. The defender's air defense level is reduced by one.
3	Damage control problems. The attacker receives a +1 DRM on his air attack dice rolls against enemy naval units.
4	Only two-thirds (round up) of the defending air engages the attacking naval air before they attack their targets.
5	Only one-third (round up) of the defending air engages the attacking naval air before they attack their targets.
6	None of the defending air engages the attacking naval air before they attack their targets.
7+	Enemy defenses in disarray. No air defense dice rolls are made. All air attacks which damage a named ship trigger a critical hit die roll against the target (20.524).
Determining surprise: Roll one die and modify as follows:	
+1	Two search results against the defending combat group.
+2	Three search results against the defending combat group.
-1	Each defender radar result.
-1	Each previous air strike against the defending combat group in that naval combat round.
Naval combat: Surprise effects are cumulative - each result includes all lesser effects.	

Raider Table - 21.5342	
<i>One die is rolled for each raider group to determine how many defending naval units are able to engage that raider group. The die roll is modified as follows:</i>	
General modifiers:	
-3	automatic
+1	for each additional raider group operating in the SW box (+1 for the second group, +2 for the third group, etc.)
+1	if the raider group contains three ships
+1	for each defender air range research result
Additional Atlantic modifiers:	
+1	the U.S. is at war with Germany
+1	for every 6 CVEs in the Atlantic SW box (round down): 0-5: 0; 6-11: +1; 12-17: +2; 18-23: +3; 24+: +4
Additional Indian Ocean modifier:	
+1	Japanese raiders based in Singapore.
+1	for every 3 CVEs in the Indian Ocean SW box (round down): 0-2: 0; 3-5: +1; 6-8: +2; 9-11: +3; 12+: +4. Each operational search AAS and NAS in the India box is equivalent to one CVE.
Additional Pacific modifier:	
+1	for every 3 CVEs in the Pacific SW box (round down): 0-2: 0; 3-5: +1; 6-8: +2; 9-11: +3; 12+: +4. Each operational search AAS and NAS in the Australia box is equivalent to one CVE with respect to Japanese raiders entering the Pacific SW box off the southern edge of the Pacific mapboard (only).
Additional modifier for German and Italian raiders:	
+/-1	Ultra codebreaking advantage
Additional modifier for Japanese raiders:	
+/-1	Magic codebreaking advantage
Modified results of "1" or greater permit defending ships to engage the raider group in question.	
<i>The first defending ship to engage is always a cruiser. The type of additional defending ships which engage each raiding group is determined by rolling one die. If no ship of the required type is available, substitutions are not permitted:</i>	
1	Cruiser
2	Cruiser or 2-factor battlecruiser
3	3-factor battleship or battlecruiser
4	4-factor battleship
5	5-factor battleship or a fast carrier
6	Defender's choice of any eligible ship

Air Range Effects Table				
Air range results	Europe		Pacific	
	Bombers	Inter.	Bombers	Inter.
0	4	4	3	3
1	8	4	6	3
2	16	8	12	6
3	24	12	18	9
<p>"Air range results" refer to the number of "10+" air range research results achieved. Each major power coalition may increase its air range no more than three times per game.</p> <p>The maximum ranges in hexes for strategic bombers and escorting interceptors for each theater are given for each level of air range achieved. Strategic bombers and escorting interceptors begin the game with a range of four hexes in Europe and three hexes in the Pacific.</p> <p>For every eight (Europe) or four (Pacific) hexes of excess bombing range, friendly bomber SW combat dice rolls receive a favorable +/-1 DRM. This modifier is limited by the number of strategic bomber research results achieved by the bombing alliance faction (the initial Western Allies strategic bombing result counts towards this limit).</p>				

Submarine Attack Table - 22.94											
DR	2	3	4	5	6	7	8	9	10	11	12+
Sub	*	0	0	1	1	2	2	3	3	4	5
Modifiers											
+/-#	Naval Nationality DRM (22.552A, 22.9411)										
+/-#	<i>Relative torpedo and ASW research levels (22.9412)</i>										
+/-#	<i>Every three land-based air squadrons used for search in the submarine attack hex, fully operational fast carriers and CVEs in the attacked naval force (round down) (22.9413)</i>										
-#	<i>Every three destroyer factors in the attacked naval force, including destroyers which are carrying units or BRPs (round down) (22.9414)</i>										
-#	<i>Every three ASW factors in the relevant SW box in excess of the corresponding number of enemy submarines (round down) (22.9415)</i>										
-1	For each previous submarine attack made against the defending naval force in that naval combat round (22.9416)										
+1	If the attacked naval unit is damaged or involved in carrying out a naval activity which reduces its effectiveness (22.9417)										
+/-1	Submarine or ASW codebreaking advantage (22.9418)										
One dice roll is made for each attack. On a “*” result, the attacking submarine factor is eliminated.											
<i>The maximum effect from each modifier in italics is +/-2.</i>											
The maximum overall modifier for a submarine attack cannot exceed +/-4.											
Advanced submarines always attack at +1.											
One die is rolled to determine the target of each submarine attack (22.93E).											

22.93E: The precise target of each submarine is determined as follows:

- The defender reveals the contents of his attacked combat group and arranges his naval units in the following order: his fast carriers, largest to smallest; his capital ships, largest to smallest (slower ships first for ships of the same size); and lastly his light ships (as a group). Damaged ships are ranked before undamaged ships of the same type and speed; undamaged ships of the same type and speed with accumulated hits are ranked according to the number hits.
- The attacker then rolls one die to determine what his submarine attacks: on a "1" the submarine attacks the first defending ship (the largest fast carrier, if the defending naval force contains any fast carriers); on a "2" the submarine attacks the second defending ship, and so on.
- A "6" targeting roll always attacks the light ships in the combat group. If a targeting die roll is greater than the number of heavy ships in the attacked combat group, that submarine attacks the light ships in the combat group.
- If there are no light ships in the combat group being attacked, the lowest ranked heavy ship is treated as light ships for targeting purposes.
- Submarines may not select specific targets, even light ships.

Carrier Effects Table				
Number of CVEs	Atlantic		Indian Ocean and Pacific	
	Submarine warfare	Raiders	Submarine warfare	Raiders
0-2	0	0	0	0
3-5	0	0	-1	+1
6-8	-1	+1	-2	+2
9-11	-1	+1	-3	+3
12-14	-2	+2	-4	+4
15-17	-2	+2	-4	+4
18-20	-3	+3	-4	+4
21-23	-3	+3	-4	+4
24+	-4	+4	-4	+4
Negative submarine warfare modifiers favor the defender; positive raider modifiers favor the defender.				