

Attrition Table - 14.41							
	1-10	11-20	21-30	31-40	41-50	51-60	61+
0	-	-	1C	2C	2C/1H	3C/2H	5C/2H
1	-	1C	2C	1C/1H	3C/1H	4C/2H	5C/3H
2	-	1C	2C	2C/1H	3C/2H	5C/2H	6C/3H
3	-	2C	1C/1H	3C/1H	4C/2H	5C/3H	7C/3H
4	-	2C	2C/1H	3C/2H	5C/2H	6C/3H	7C/4H
5	1C	1C/1H	3C/1H	4C/2H	5C/3H	7C/3H	8C/4H
6	1C	2C/1H	3C/2H	5C/2H	6C/3H	7C/4H	9C/4H
7	2C	3C/1H	4C/2H	5C/3H	7C/3H	8C/4H	9C/5H
8	2C	3C/2H	5C/2H	6C/3H	7C/4H	9C/4H	10C/5H
9	1C/1H	4C/2H	5C/3H	7C/3H	8C/4H	9C/5H	11C/5H
10	2C/1H	5C/2H	6C/3H	7C/4H	9C/4H	10C/5H	11C/6H
11+	3C/1H	5C/3H	7C/3H	8C/4H	9C/5H	11C/5H	12C/6H
Modifiers							
+1	For every ten attritioning factors over 61						
+/-#	Difference in CTLs						
+/-#	Difference in winter preparation levels (turns in which winter effects apply only)						
Explanations							
The attritioning player receives a favorable modifier if the number of attritioning factors exceeds 70 (71-80: +1; 81-90: +2; 91-100: +3; 101-110: +4; 111-120: +5; 121-130: +6; etc.)							
When determining the difference in CTLs, the CTL used for each side is that of the greatest number of factors involved in the attrition: use the lower level if tied.							
Asia: For attritions conducted on the Pacific mapboard, the number of hexes captured is reduced by half (round down).							

14.73 PRIORITY OF HEXES FOR RETREATING UNITS: If forced to do so, the defender may overstack, enter an enemy ZoC, or enter an enemy-controlled hex, in that order. The defender must select the least of the following evils:

- A. Overstack (rather than enter an enemy ZoC);
- B. Enter an enemy ZoC (rather than enter an enemy-controlled hex);
- C. Enter an enemy-controlled hex (rather than be eliminated).

Combat Results Table - 15.6								
	1:4	1:3	1:2	1:1	2:1	3:1	4:1	5:1
1	A	A	A	A	a	Ex	Ex-1	Ex-2
2	A	A	A	a	Ex	Ex-1	Ex-2	d
3	A	A	a	Ex	Ex-1	Ex-2	d	D
4	A	A	Ex	Ex-1	Ex-2	d	D	D
5	A	Ex	Ex	Ex-2	d	D	D	D
6	Ex	Ex	Ex	d	D	D	D	D
Modifier								
+1	For each previous round of combat							

15.61 COMBAT RESULTS:

A: The attacker loses a number of factors equal to the modified value of the defender's units, taking into account the defender's DM.

a: The attacker loses a number of factors equal to half the modified value of the defender's units, taking into account the defender's DM.

Ex: The side with the fewer combat factors, taking into account the defender's DM, loses its entire force. The larger side removes at least an equal number of factors, taking into account the defender's DM. The strength of defensive air support is unaffected by the DM of the defender's ground units when computing the attacker's exchange losses.

Ex-1: The defender loses his entire force. The attacker loses as many factors as the defender, applying to the defender's ground units a DM one

Air Combat Table - 19.2												
AF AS	Dice Roll											
	2	3	4	5	6	7	8	9	10	11	12+	
1	0	0	0/1	0/1	1/0	1/0	1/1	1/1	1/2	1/2	1/3	1/3
2	0/1	0/1	1/0	1/0	1/1	1/1	1/2	1/2	1/3	1/3	2/2	2/2
3	1/0	1/0	1/1	1/1	1/2	1/2	1/3	1/3	2/2	2/3	2/4	2/4
4	1/1	1/1	1/2	1/2	1/3	1/3	2/2	2/3	2/4	3/3	3/4	3/4
5	1/2	1/2	1/3	1/3	2/2	2/3	2/4	3/3	3/4	3/5	4/4	4/4
6	1/2	1/3	1/3	2/2	2/3	2/4	3/3	3/4	3/5	4/4	4/5	4/5
7	1/3	1/3	2/2	2/3	2/4	3/3	3/4	3/5	4/4	4/5	4/6	4/6
8	1/3	2/2	2/3	2/4	3/3	3/4	3/5	4/4	4/5	4/6	4/6	5/5
9	2/2	2/3	2/4	3/3	3/4	3/5	4/4	4/5	4/6	5/5	5/6	5/6
10	2/3	2/4	3/3	3/4	3/5	4/4	4/5	4/6	5/5	5/6	5/7	5/7
11	2/4	3/3	3/4	3/5	4/4	4/5	4/6	5/5	5/6	5/7	6/6	6/6
12	3/3	3/4	3/5	4/4	4/5	4/6	5/5	5/6	5/7	6/6	6/7	6/7
13	3/4	3/5	4/4	4/5	4/6	5/5	5/6	5/7	6/6	6/7	6/8	6/8
14	3/5	4/4	4/5	4/6	5/5	5/6	5/7	6/6	6/7	6/8	7/7	7/7
15	4/4	4/5	4/6	5/5	5/6	5/7	6/6	6/7	6/8	7/7	7/8	7/8
16	4/5	4/6	5/5	5/6	5/7	6/6	6/7	6/8	7/7	7/8	7/9	7/9
17	4/6	5/5	5/6	5/7	6/6	6/7	6/8	7/7	7/8	7/9	8/8	8/8
18	5/5	5/6	5/7	6/6	6/7	6/8	7/7	7/8	7/9	8/8	8/9	8/9
19	5/6	5/7	6/6	6/7	6/8	7/7	7/8	7/9	8/8	8/9	8/10	8/10
20	5/7	6/6	6/7	6/8	7/7	7/8	7/9	8/8	8/9	8/10	9/9	9/9
Modifiers - Air Combat												
+/-#	Air Nationality DRM											
+/-1	for each jet factor or three jet squadrons engaged											
+/-1	combat involving CAP											
+/-1	each radar research result achieved by the defender (air combat arising from strategic bombing only)											
If more than 20 air factors/squadrons engage in combat, the result is determined by consulting the "20" row and whatever other row is required to equal the total number engaged. The dice roll is not modified by the number of air factors/squadrons over 20.												
Results: The number before the slash is the number of enemy air factors/squadrons which are eliminated. The number after the slash is the number of enemy air factors/squadrons which are forced to abort (EXCEPTIONS: Air units flying combat air patrol/air cover or defending against strategic bombing do not abort and ignore the number after the slash - 23.416B, 26.451).												

Air Nationality Chart - 19.31A, 23.441A	
DRM	Nationality
2	Germany, Japan, United States, Britain, Finland, Sweden, Australia
1	Italy, Russia, France
0	All minor countries except Finland, Sweden and Australia
Modifiers	
+1	Elite Japanese naval air
+1	Interceptors
-1	British naval air
-1	Air units subject to a winter effect of 8 or more
-1	Air units in partial supply or subject to air oil effects

level lower than the defender's actual DM. If this reduces the defender's DM to zero or less, the attacker's losses are limited to the strength of the defender's defensive air support.

Ex-2: The same as an "Ex-1", except the defender's DM is reduced by two before determining the attacker's losses.

d: The defender loses half the number of defending factors, ignoring DMs.

D: All defending units are eliminated.

Air Defense Table - 23.42											
Air DF	Dice Roll										
	2	3	4	5	6	7	8	9	10	11	12+
1	0	0	0	0	0	0/1	0/1	1/0	1/0	1/1	1/1
2	0	0	0/1	0/1	1/0	1/0	1/1	1/1	1/2	1/2	2/1
3	0/1	0/1	1/0	1/0	1/1	1/1	1/2	1/2	2/1	2/1	2/2
4	1/0	1/0	1/1	1/1	1/2	1/2	2/1	2/1	2/2	2/2	2/3
5	1/0	1/1	1/1	1/2	1/2	2/1	2/1	2/2	2/2	2/3	2/3
6	1/1	1/1	1/2	1/2	2/1	2/1	2/2	2/2	2/3	2/3	3/2
7	1/1	1/2	1/2	2/1	2/1	2/2	2/2	2/3	2/3	3/2	3/2
8	1/2	1/2	2/1	2/1	2/2	2/2	2/3	2/3	3/2	3/2	3/3
9	1/2	2/1	2/1	2/2	2/2	2/3	2/3	3/2	3/2	3/3	3/3
10	2/1	2/1	2/2	2/2	2/3	2/3	3/2	3/2	3/3	3/3	3/4

Air Defense Level

+1 for every ten naval factors, including damaged naval factors (round fractions up). Ships sunk in port, submarines and transports are not counted. Each CVE is worth three naval factors.

+1 each air defense research result

+1 each flak factor, airbase counter, objective or anchor symbol

+2 each city or port

+1 each fortification level (+1 for each fortification; +2 for a fortress; beach defenses have no effect on air defense levels)

+1 for each five-factor battleship in the attacked naval force

+1 for each CVB in the attacked naval force

-1 if the attacker achieves a surprise level of 2 or greater

If the air defense level is more than 10, the result is determined by consulting the "10" row and whatever other row is required to equal the total air defense level.

Results: The number before the slash is the number of attacking air squadrons or factors which are eliminated. The number after the slash is the number of attacking air squadrons or factors which abort their mission and return to base (EXCEPTION: Kamikazes do not abort and ignore the number after the slash - 23.423). Air units which abort may take part in future air sorties during the current air attack.

Naval Nationality Chart - 22.552A, 23.441B	
DRM	Nationality
3	Japan
2	Germany, Britain, United States, Sweden, Australia
1	Italy, France
0	Russia, Greece, Rumania, Spain, Turkey, Dutch East Indies

Modifiers

+1	Five-factor battleships
+1	German submarines
-2	Japanese and American CVLs; all CVs and CVEs
-1	German, Italian and British CVLs; all CVBs
-1	Naval units in partial supply or subject to naval oil effects.

Explanation: When fleets with different DRMs engage in fleet combat, the two DRMs are compared. The higher ranking side adds the difference to its fleet combat dice roll, and the lower ranked side subtracts the difference from its fleet combat dice roll. Air attack dice rolls against naval units are reduced by the DRM of the attacked naval units.

Naval Attack Table - 20.51, 22.55, 23.44											
AS	FF	Dice Roll									
		2	3	4	5	6	7	8	9	10	11
	1	0	0	0	0	0	0	1	1	1	1
	2	0	0	0	0	0	1	1	1	1	2
1	3	0	0	0	0	1	1	1	1	2	2
	4	0	0	0	1	1	1	1	2	2	3
2	5-6	0	0	1	1	1	1	2	2	3	3
3	7-9	1	1	1	1	2	2	2	3	3	4
4	10-12	1	1	2	2	2	3	3	3	4	5
5	13-15	2	2	2	3	3	3	4	4	5	6
6	16-18	2	2	3	3	3	4	4	5	5	6
7	19-21	2	3	3	3	4	4	5	5	6	7
8	22-24	3	3	3	4	4	5	5	6	6	7
9	25-27	3	3	4	4	5	5	6	6	7	8
10	28-30	3	4	4	5	5	6	6	7	7	8
11	31-33	4	4	5	5	6	6	7	7	8	9
12	34-36	4	5	5	6	6	7	7	8	8	9
13	37-39	5	5	6	6	7	7	8	8	9	10
14	40-42	5	6	6	7	7	8	8	9	9	10
15	43-45	6	6	7	7	8	8	9	9	10	11
16	46-48	6	7	7	8	8	9	9	10	10	11
17	49-51	7	7	8	8	9	9	10	10	11	12
18	52-54	7	8	8	9	9	10	10	11	11	12
19	55-57	8	8	9	9	10	10	11	11	12	13
20	58-60	8	9	9	10	10	11	11	12	12	13

Modifiers - Air Attacks on Naval Units

+# attacker's Air Nationality DRM

-# defender's Naval Nationality DRM

+1 naval air units attacking ships at sea

+1 if the attacker achieves a surprise level of 3 or greater

Modifiers - Fleet Attacks on Naval Units

+/# Naval Nationality DRMs (22.552A)

+/-1 If one of the combat groups involved is carrying out a naval activity which reduces its effectiveness (22.552B)

If more than 20 air squadrons engage in combat, the result is determined by consulting the "20" row and whatever other row is required to equal the total number of air squadrons engaged. If more than 60 fleet factors engage in combat, the result is determined by consulting the "58-60" row and whatever other row is required to equal the total number of fleet factors engaged.

Results

Named ships and cruisers: A named ship or cruiser is damaged if it incurs naval attack effects one less than its size in factors and is sunk if it incurs naval attack effects equal to or greater than its size in factors.

Cruiser groups: If a group of light ships consisting only of cruisers incurs an odd number of hits, the odd hit damages one cruiser.

One-factor naval units: If a group of ships consists only of destroyers, CVEs, transports or a combination of the three, each hit sinks a destroyer, CVE, or transport factor.

Mixed light forces: Naval attack effects incurred by a light force consisting of both cruisers and one-factor naval units are distributed evenly between the cruisers and one-factor naval units, subject to the proviso that the number of one-factor ship factors sunk may not exceed the number of cruiser factors sunk until all the cruisers in the force are sunk (20.551).