

## ***A & A GAME ENGINEERING PRODUCT SUPPORT***

Product Support sheets come in the following types:

- Clarifications – these are more general clarifications about game play in response to questions from players.
- Corrections and Amendments – these include corrections to errors in game data, typing errors, and mistakes in game play that have come to light. These may come in two alternatives:
  - applicable to the most recent edition.
  - applicable to previous editions. These items will all have been incorporated into the latest edition on sale.
- New Rules – These rules will have been developed in response to requests from players. They may also have been developed from House Rules (see below).
- House Rules and player suggestions. House rules that are tested and work well may be incorporated into the basic rules if the author(s) approve.

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# ***STATIONS MANNED AND READY II***

## **ERRATA TO EDITION 1.0B**

DATE: 17 NOVEMBER 2015

UPDATED 16 DECEMBER 2015

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### ***Preface to Errata sheet number 2 to Stations Manned and Ready II.***

Many of these changes have come to light during the preparation of a revised edition (1.1) to the rules, which will be released in 2016. Others have been added thanks to input from users of the rules, who have spotted some things we had overlooked.

There are some sections of text that have been rewritten so that the treatment of Merchants and similar is clearer, as well as how to treat tests when raked.

There are some modifications to the Smoke rules.

Some minor text changes have also been made to adjust the page layout if necessary. These are not listed below as they have no effect on the rules themselves.

Where possible this document provides replacement pages which can simply be substituted in your PDF versions of the rules.

We have added appropriate remarks to explain any significant changes we have made.

Replacement pages are included for:

Pages 9 to 12

Pages 15 to 26 (Correction to replacement page 18—see below)

Pages 33 to 36

Pages 39 to 42

Pages 49 to 56

Note:

While working on the edit for edition 1.1 I noticed that the 5th paragraph under “Using warships to carry cargo” had got deleted, and the previous 3rd paragraph had been left in place (leaving a confusing set of victory conditions).

The page has been re-edited appropriately.

### ***A taster of what is coming***

In edition 1.1 we will be introducing the use of Contact Markers, which can be used if players wish to have more hidden movement and the uncertainty of where the enemy might be.

In games with convoys there will be an optional rule to allow ships to carry more valuable and vulnerable cargoes (such as fuel or ammunition). These will be subject to additional Critical Damage effects.

The rules for using small ships (Type “X”) have been revised and allow more combat interaction between them and larger vessels. Some of the restrictions on what guns can fire at which targets have been altered.

The method of torpedo firing has been rewritten so that it reflects reality a bit better, so you will have to line up and declare your torpedo attacks in the movement phase, which are then resolved in the Shooting phase.

The use of Ship-borne aircraft has been expanded and there will be more extensive rules for their use.

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### 3—COMMAND AND CREW

#### Page 9

On page 9 the last sentence under ‘Command and Crew when using Aircraft’ has been revised to clarify how to generate values. In the last paragraph under ‘National Characteristics’ a Typo has been corrected.

There are some revisions in the tables showing the Nationality Codes. The first regarding the Netherlands is intended to clarify the time frames for the various sets of data.

#### ***Ships***

The Netherlands entries should be revised to read:

Netherlands	To 1930	C	C
(Europe)	1931 to 1942	C	C
(Far East)	1931 to 1942	D	C
(All)	1943 to 1945	B	C

The final row in the ships table should be split into two. The first shows:

Other Nations	Warships	C	D
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Followed by

All Nations	Armed Merchants	C	C
	Merchants	E*	E*

#### ***Aircraft***

The header should now read ‘Aircraft and Land Installations’.

In the first row of the table the text of the left hand cells should be combined as follows:

“All Nations and Periods except those shown below”

The table should be expanded with an additional final row:

“All Air Bases, Forts or Gun Batteries, regardless of Nation” with values C and C

#### Page 10

#### ***Table of Command Costs***

On page 10 an additional sentence has been added with what is in effect a new rule, that the Command costs for vessels classified as Type “X” are calculated in the same way as aircraft.

#### ***3.1 Commanders***

There is a text modification in the 2nd sentence describing typical off-table forces.

#### ***Example***

There are some corrections in the example box, at the end of paragraphs 5 and 6 which indicate multiple dice scores where there are only two, single, dice scores in use. There is also a clarification that the carrier is in one of the squadrons of ships.

#### ***Optional Rule A***

The Command Value should refer to Table C not D.

#### Page 11

#### ***3.3 – Tactical Doctrine for Aircraft***

At the start of the 4th bullet we have added that this is a recommendation, and added some words explaining why. The text order has also been adjusted. We have also added an absolute minimum for the number of bomber aircraft in a stand.

#### Page 12

### 4 – TESTS

There were three items that got missed out on this page, which is a summary of the tests used in the game.

#### ***Bad Weather***

Insert a new 4th bullet:

- Ship Morale Tests

#### ***4.1 – Crew Tests***

Add a new final bullet

- Ship Morale Tests

#### ***4.4 – Other Tests***

We had missed out a description of the Fire Test, which should have appeared here.

#### ***“Fire Test***

This is similar to a Critical Damage Test, rolling a d20 against a target value as defined in the rule concerned. If the score is equal to or less than the value a fire is started.”

#### Page 15

#### ***5.4 – Tactical Visibility***

This table has some meteorological errors (spotted by an eagle-eyed reader) particularly regarding the southern hemisphere. the modifiers should be altered as follows:

<b><i>Tactical Visibility Conditions Table (d10)</i></b>					
<b><i>Die Score</i></b>	<b><i>Tactical Visibility</i></b>		<b><i>Areas of bad weather Roll 1d6</i></b>		
	<b><i>Day</i></b>	<b><i>Night</i></b>	<b><i>Score 1 – 3</i></b>	<b><i>Score 4 – 5</i></b>	<b><i>Score 6</i></b>
1 or less	2 RB	1 RB	3	4	5
2-3	3 RB	1 RB	2	3	4
4-7	4 RB	2 RB	1	2	3
8-9	5 RB	2 RB	0	1	2
10 +	6 RB	3 RB	0	0	1
<b><i>Modifiers to d10</i></b>					
Arctic (December to February)					- 3
Arctic (March to May, September to November)					- 2
Arctic (June to August)					- 1
North Sea / North Atlantic (December to February)					- 2
South Atlantic (June to August)					- 1
North Sea / North and South Atlantic (March to May, September to November)					- 1
Indian Ocean / South China Sea (January to December)					+ 1
South Pacific (June to August)					+ 2
South Pacific (March to May, September to November)					+ 2
South Pacific (December to February)					+ 3
Aleutians, Mediterranean, North Sea / North Atlantic (June to August), South Atlantic (December to February), Sea of Japan, North Pacific					+ 0

In the example the text should be altered to read “North Atlantic in January”

**Page 15 (continued)****5.4 – Tactical Visibility****Effects of Bad Weather – Movement**

In the 1st paragraph change the text to read “...than its MVR within the area.”

In the example box delete “= Minimum Speed”.

Change the 1st sentence of the 2nd paragraph (below the example box) to read:

“A ship that starts its movement in an area of Bad Weather can only move *Slowly* or be *Stopped* and must be marked accordingly.”

Delete the final sentence.

**5.5 – Deployment of Forces**

Change the final sentence of paragraph 3 to read:

“Each side must deploy at least one Squadron of Ships or Aircraft.”

**Page 16****5.6 – Reserve Forces****Test for Entry**

Delete the last row in the table (referring to aircraft entering). This text is just confusing. Aircraft use no modifiers other than the Command Value.

In paragraph 2 (below the table) change the 2nd sentence to read:

“As a rule, ships entering the table should come on using their *Normal* speed. If a player wishes, a ship may be moved at its *Slow* speed, for instance if it wishes to carry out Damage Control, or stop. Such ships must be marked accordingly.”

**5.7 – Multi-table Battles**

Insert a new section before Friendly and Enemy base Edges

**“Create a map**

Create a map which shows the relative location of each playing area, ideally showing how the tables are linked. Leaving one table on its south edge does not necessarily mean that the ship will enter the north edge of an adjacent table. In addition, bear in mind that the table layout in the venue might not always match the map. For the purpose of the rules ‘tables’ and ‘map areas’ are synonymous.”

**Moving between tables**

Add to the header:

“/Map areas”

Change the end of the 1st sentence to read:

“...in the entry box of the “destination” table following the links shown on the overall map.”

Delete the rest of the paragraph.

Change the last sentence of paragraph 2 to read:

“...to the entry box of another game table following the links on the map.”

Delete the end of last sentence of the 4th paragraph (referring to aircraft) so it reads:

“Aircraft squadrons can be moved to any destination table.”

**Page 17****5.10 Convoy Actions**

In addition to these revisions shown here, there will be some additional optional rules regarding “vulnerable and valuable cargo” in Edition 1.1. These have been left out here so that the current revised pages can be fitted seamlessly into the existing page layout.

Add a new sentence at the end of the 1st paragraph:

“Merchants ships in a convoy must also be placed in Squadrons, and given Command and Crew Quality.”

Change the beginning of the 2nd sentence of paragraph 2 to read:

“The pool of Cargo Points is distributed...”

Add a new final sentence to paragraph 2:

“Some vessels may be assigned no Cargo Points if the player wishes. In all cases a record must be kept of where the cargo is being carried (the Ship Record Sheet would be a good place to do this).”

In the example box change the end of the 1st sentence to read:

“... more than half on a ship (which in this case is 1½ which rounds to 2).”

Replace the 4th and 5th paragraphs with the following text:

“A record is kept of the number of combined Ship and Cargo Points that were available at the start. The Convoy wins if it delivers more than half this number to the destination. If exactly half the value is delivered the game is considered a draw. As a convoy ship is either sunk or reaches its destination, its total value in ship, cargo (and optional bonus points) must be declared. At some point it will become apparent that the convoy player has won or lost, at which point the game ends and the gloating starts.”

**Page 18****Using warships to convey cargo**

Replace paragraphs 3 and 4 with the following:

“A record is kept of the number of Cargo Points that were available at the start. The Convoy wins if it delivers more than half this number to the destination. If exactly half the value is delivered the game is considered a draw.”

In the current 6th paragraph, change the end of the 2nd sentence to read:

“..., then the cargo is hit with no effect on the weapons. ...”

There is a new section by way of clarification, added at the end of rule 5.10:

**“Effect of Morale on Convoys, Escorts and Attackers**

The normal morale rules apply to the warships involved in the action, so that a convoy will also win if the attackers are driven off or sunk. If escorts withdraw or are sunk, the normal rules still apply when the number of surviving squadrons (including those composed of merchants) falls to 50% of the original.”

### **Page 18 (continued)**

#### **5.11 – Repair Rules for small campaigns**

Change the start of the 5th bullet to read:

- Each week, the squadron rolls 1d10 per Repair/Replacement...

Some changes are required in the table, as follows:

The header should have the following remark added:

“(Shaded items cannot be repaired during the course of a game.)”

The 3rd row should read “Ship’s Spotting Distance”

7th row, the cost should read “5/15”.

8th row, the cost should read “10/30”.

The bottom row text should read:

“\* These values can be increased by 1 or 2 steps per week. The costs shown in the table are those for increasing by 1 or 2 steps.”

### **Page 19**

#### **Optional Rule Box**

The second rule is Rule C not D.

### **Page 20**

#### **Tactical Visibility Change Table**

The effects on Bad Weather in the last three rows are inverted.

#### **Visibility Change**

In the 2nd paragraph, final sentence, delete “the”.

#### **Example Box**

In the last paragraph change the “draw result” to read ’10’.

### **Page 21**

#### **6.4 – Ship Movement Phase**

The second bullet should be changed to read:

“...to it may choose to stop making smoke at the start of its Movement Activation. Otherwise the smoke moves with the ship and can be placed in accordance with the smoke rules after the ship has moved.”

The 3rd and 4th bullets are replaced with the following:

- Ships should move at their *Normal* speed, unless their maximum speed has been reduced to below this by damage. If this is the case, they are either at *Slow* speed or are *Stopped*; in either case they are marked accordingly.

If a player wishes, he may voluntarily move at *Slow* speed, for instance to carry out Damage Control or prepare to stop.

A ship might be also be *Stopped*.

### **Page 22**

## **7 – MOVEMENT**

There are a number of changes by way of clarification in the movement rules. Many of these cover the situation where ships are moving “slowly” which was not defined satisfactorily. Speed is now better defined, and text of the rules for movement has been rewritten. The text attached to this erratum only takes account of changes valid in Edition 1.0B. In the next edition (1.1) there are a number of new sections that will appear here.

### **Page 30**

#### **Fundamentals about Combat**

There are a few clarifications in the table:

Change the text in the 1st paragraph in the right hand box of the first row to read:

“...within the firing ship’s SD or the Tactical Visibility Range (TVR), whichever is lower.”

Change the text in the 1st paragraph in the right hand box of the third row to read:

“...within the firing ship’s SD or the TVR, whichever is lower.”

#### **Removing wrecks**

By way of clarification, wrecks can be removed by gunfire and being hit by a torpedo.

### **Page 32**

#### **9.3 – Radar**

The table concerning Acquiring targets using radar has an incorrect modifier about using radar with the gun battery to acquire the target.

Delete the final row in the table.

### **Page 33**

#### **9.4 – Ships shooting with Guns**

##### **Spotting distance**

The 2nd sentence should be amended to read “...the gunnery details on the Ship Record Sheets only show...”

##### **Number of targets; Splitting fire**

The first sentence should be amended to read “...in a battery that can engage a target are fired...”

##### **Resolving Hits with Guns**

The first bullet text should be revised to read:

“Each ship in the squadron currently carrying out its Action Phase attacks its target(s), which were declared when the Squadron activated, before moving to...”

A new paragraph (by way of clarification) is inserted after the first bullet:

“A ship could be wrecked by the hits of one battery. Subsequent hits from other gun batteries on the current ship could destroy the wreck (as could hits from other ships that had declared the original ship as their target).”

**Page 33 (continued)**

The start of the 5th bullet should be revised to read:

“...Select the battery, total the number of guns that can be fired at the target, then roll ...”

Then insert a new paragraph after the 5th bullet:

“If your ship has a “Mixed Gun Battery” you may not wish to fire all the turrets/guns at the target, because you could suffer a penalty due to some guns having a worse performance. Refer to the Special Rules for details.”

**Page 34****“On Target” rolls**

The header in the top table should read:

“Gunnery ‘On Target’ To Hit Table”

... and the second table header should read:

“Gunnery ‘On Target’ Modifiers”

In the modifiers table change the steering modifier text to read:

“Target damaged steering (SV = 0)”

In the speed modifier, change the text to read:

“Target moving at *Slow* speed”

The final row is changed to read:

“Target is *Stopped* or a Land Target”

**Hits on Merchants and AMCs**

The paragraph should be altered to read:

“Merchant vessels and Armed Merchant Cruisers (AMCs) roll an additional test against the CV to see if they suffer more critical damage, over and above the normal number of rolls.”

**Raking Fire**

The 1st sentence of the 1st paragraph should be altered to read:

“If a ship is hit by is hit by Raking Fire, it must roll an additional test against the CV to see if they suffer more critical damage, over and above the normal number of rolls.”

**Example Box**

The final paragraph refers to “firing marker”. This should read “splash marker”.

**Page 35****9.5 Ships attacking with Torpedoes**

A the start of the torpedo section, the following paragraph can be inserted, by way of an introduction on the use of torpedoes in these rules:

“We have deliberately made torpedoes more dangerous than they actually were in real life, to make players aware that the threat of torpedoes was actually more important in making tactical decisions. The IP damage and chance of causing critical damage from a torpedo hit does reflect their effectiveness correctly, and probably will not sink a large ship (though an unfortunate Critical Damage effect might – and has happened to one of the authors).”

The final sentence in the first paragraph should be deleted.

**Weapon ranges, Speed Settings and effectiveness**

Change the header to read

“Torpedo ranges and Effectiveness”

After the 3rd sentence in the first paragraph, insert:

“The speed setting that is chosen by the player is applied to all attacks, even against targets located at shorter ranges where a better

“to hit” modifier might apply. The speed setting also determines the range over which the torpedo will travel during its attack.”

**Example Box**

Add new text at the start of the example box, to read:

“If a torpedo has settings of +1, +1, +1 then it has the potential to attack any targets at up to 3 Range Bands, and its range cannot be limited to a lower number.

If a torpedo has settings of +2, +0, –1, the player can limit its range to 1, 2 or 3 RB by selecting the appropriate modifier. The modifier is used for all the attacks, even if a shorter range has a better modifier.”

The end of the existing first sentence should be altered to read:

“... could be attacked, using a +1 modifier.”

The final sentence should be expanded to read:

“...within 3 RB, and any targets that are attacked will use a +0 modifier, including those in the first 2 range bands.”

**Arcs of Fire**

The 1st two sentences of the 2nd paragraph should be combined and altered to read:

“In the case of small highly manoeuvrable craft such as MTBs and S-Boats which fire ahead, but have an MVR of 1, stands containing such vessels are allowed to swivel at the end of their movement to point at a target or target area.”

**Area of Fire**

The first sentence of the 2nd paragraph is altered to read

“... vessel’s base nearest to the target, and the rest...”

**Page 36****Resolving the number of hits with Torpedoes**

The first bullet is changed to read:

- Each ship in the squadron currently carrying out its Action Phase attacks its target(s), which were declared when the Squadron activated, before moving to the next ship in the squadron.

Add a new paragraph into Bullet 10:

“If necessary carry out a wreck test immediately. Bear in mind that a ship could be wrecked by one torpedo hit in a salvo, then that wreck could be destroyed by the next torpedo hit in the same salvo. If this happens any additional torpedoes that had scored a hit against the current target are considered as spent and are not treated as having “missed”.”

Bullet 11 change the text to read:

“... that hits test for a critical hit...”

the 2nd paragraph of bullet 11 should read:

“If the target vessel suffers from Poor Underwater Protection, it must re-roll a failed test against the CV to see if it suffers Underwater Critical Damage.”

The 3rd paragraph of bullet 11 should read:

“Merchant vessels and AMCs roll TWO tests for each torpedo hit, and re-roll any “failed” tests as all merchant types have Poor Underwater Protection.”

Delete the clarification box. below bullet 11.

**Page 36 (continued)**

**Torpedo To Hit table**

In the modifiers section, delete the row referring to the number of torpedoes, and the row referring to fixed tubes.

The target steering row should read

“Target has damaged steering (SV = 0)”

In the row referring to target speed change the text to read:

“Target moving at *Slow* speed”

The final row is changed to read:

“Target is *Stopped* or a Land Target”

**Example box**

Delete the 2nd sentence of paragraph 2.

**Page 37**

**9.6 – Shooting at ships using CRF and MRF**

Change the 3rd sentence in the first paragraph to read:

“The calibre of these guns can from 20mm upwards, and under 100mm (3.9” – which is the lower limit for weapons classed as guns on the Ship Record Sheets).”

**Resolving Surface shooting with CRF and MRF**

Change the text of the first bullet to read:

- Each ship in the squadron currently carrying out its Action Phase attacks its target(s), which were declared when the Squadron activated, before moving to the next ship in the squadron.

Bullet 9 should add a final sentence, by way of clarification:

“The score of 8 reflects firing under local control at short range.”

**CRF/MRF “On Target” table**

Change the target size modifier to read

“+3 to –4”

Change the steering modifier to read:

“Target has damaged steering (SV = 0)”

Change the Speed modifier to read:

“Target moving at *Slow* speed”

The final row is changed to read:

“Target is *Stopped* or a Land Target”

**Page 38**

**9.7 Ships shooting at Aircraft**

**Resolving anti aircraft shooting with CRF, MRF, LRF**

Change the first bullet to read:

“Each ship in the squadron currently carrying out its Action Phase attacks its target(s), which were declared when the Squadron activated, before moving to the next ship in the squadron.”

**Page 39**

**Combat effects**

Change the 2nd paragraph to read:

“If a stand loses enough aircraft to cause it to take a morale test (at the end of the turn), which it then fails, it is removed immediately and is eliminated.”

**9.8 – Smoke**

We have had a ponder about the creation of smoke screens, and their use in the game. Originally this was linked to the date 1905 (because there are remarks about their use at the battle of Tsushima). Coal burners will naturally make a lot more smoke, and this will have an adverse effect on visibility in general, regardless of making smoke screens. We considered linking the creation of smoke to the use of oil as a fuel, taking account of the fact that usually a smoke screen is created either by the injection of chemicals into the hot exhaust fumes coming from the funnel or the activation of chemical smoke pots on the ship itself. This does however work against some vessels that clearly did make smoke, but were coal burners.

We have revised our view concerning which ships can make smoke, numerous accounts being available about larger vessels doing this. Ships that can create smoke screens will show this ability on their Record Sheets, along with modifiers where appropriate. To allow some more flexibility in the rules, the date restriction has been removed, but there is a negative modifier if the action is set before 1905. Therefore, firstly, add the following new section after the 3rd paragraph in the rule section.

**“Other types of ships making Smoke:**

The use of smoke screens is limited normally to destroyer types. However, the facility can be offered to other ships, if the players agree beforehand which ships they will permit to attempt to make smoke. Some larger vessels carried smoke generating equipment which did not rely on using the ship’s funnel, such supplies would be limited though. The Crew Test applies as shown, the optional modifiers shown in the table must be applied, and, in addition, if the test is failed the ship may not attempt to make a smoke screen again in this game.”

The table requires some revision (in the same way as the initial weather table had to be updated), and the optional modifiers for ship types have been added:

<b>Smoke test modifiers (d10)</b>	
<b>If the ship is in an area of Bad Weather, re-roll if successful</b>	
Crew Quality	+ 2 to – 2
Action taking place before 1905	– 1
# Fires on testing ship:	
1 – 2	– 1
3 – 6	– 2
7 – 12	– 3
13 – 20	– 4
21 or over	– 5
<b>Optional Modifiers for ship types</b>	
Smaller ships (non-destroyer types)	– 1
Cruiser types	– 2
Larger vessels	– 3
<b>Geographic modifiers</b>	
Arctic (December to February)	– 3
Arctic (March to May, September to November)	– 2
Arctic (June to August)	– 1
North Sea / North Atlantic (December to February)	– 2
South Atlantic (June to August)	
North Sea / North and South Atlantic (March to May, September to November)	– 1
Indian Ocean / South China Sea (January to December)	+ 1
South Pacific (June to August)	
South Pacific (March to May, September to November)	+ 2
South Pacific (December to February)	+ 3
Aleutians, Mediterranean, North Sea / North Atlantic (June to August), South Atlantic (December to February), Sea of Japan, North Pacific	+ 0

**Page 39 (continued)****Example Box**

The text in the first sentence should be changed to read "... Artic in June."

The second short paragraph under the example box is moved to just above the new section regarding "Other types of ship making smoke" (introduced above).

**Removing Smoke**

The first paragraph is replaced with the following:

"Smoke does not dissipate automatically when the ship moves. It can be maintained and when the ship has moved to its new location, the smoke is placed where the player wishes, in accordance with the rules above.

The player can choose to stop making smoke when a ship is activated in its Movement Phase, before it is moved.

Smoke will dissipate automatically if the ship moves into an area of Bad Weather or if it has lost its smoke generating capabilities."

**Page 40****9.9 – Aircraft attacking ships with bombs etc.**

Add a new section before the header "Level Bombing attacks":

**"Permitted targets**

Aircraft can attack any ships other than those of Type "X" with bombs, torpedoes and rockets. Targets of Type "X" may be attacked by Rockets. (They can also be strafed or attacked with anti-shiping guns – see the following rule section.)"

Under "Level Bombing" delete the last sentence.

Under "Salvo Rockets" replace the text with the following:

"There are special effects if a ship is hit by a Salvo Rocket attack. These are noted under 'Resolving Attacks'. In addition there are special rules when these are used to attack targets of Type "X", which are also shown below."

Under "Resolving attacks" make the following changes:

In the second bullet the start should read:

"The attacking aircraft stand ..."

In the fifth bullet change the text to read:

"... in a squadron of aircraft attacks..."

The seventh bullet is changed to read:

- Select an attacking stand or clump and ascertain how many attacks are available. A stand has a number of attacks based on its surviving aircraft. A clump of stands ascertains the number of attacks for each component stand that can trace an unbroken line to the target, and totals these.

A new bullet is inserted after the seventh:

- If the target of a Salvo Rocket attack is a clump of stands of Type "X", the attacks must be distributed evenly across the stands (1 must be applied to each stand before a 2nd).

**Air Attacks table**

Change the steering modifier to read:

"Target has damaged steering (SV = 0)"

Change the Speed modifier to read:

"Target moving at *Slow* speed"

The final row is changed to read:

"Target is *Stopped* or a Land Target"

**Page 41**

The first two bullets on the page are combined and expanded to read:

- When attacking a target other than Type "X", roll all the dice for the attacking aircraft stand or clump, applying the appropriate modifiers to each of the dice. If the stand or clump declared multiple attacks, the attack dice are rolled for each attack. A final score of 11 or greater on d20 is required to hit.

For each hit place 1 splash marker on the target and apply the IP damage to the target. If necessary carry out a Wreck Test on the target.

A ship could be wrecked by the first hit in an attack from a stand, then that wreck could be destroyed by a subsequent hit from the same stand. If this happens any additional attacks that had scored a hit against the current target are considered as spent.

The 4th bullet on the page is altered at the start to read:

"For hits on targets other than Type "X" check for any ..."

The 2nd paragraph of the bullet is changed to read:

"Merchants and AMCs roll an additional test against the CV to see if they suffer more critical damage, over and above the normal number of rolls."

**Page 42****9.11 – Aircraft attacking ships with standoff weapons**

Right hand column, bullet 8, 3rd paragraph, change to read:

"Merchants and AMCs roll an additional test against the CV to see if they suffer more critical damage, over and above the normal number of rolls."

**Page 43****9.12 – Kamikaze attacks**

Right hand column, third bullet, change to read:

- "Merchants and AMCs roll an additional test against the CV to see if they suffer more critical damage, over and above the normal number of rolls."

**Page 44****9.13 – Aircraft fighting aircraft**

In the air combat table in the right hand column there is an error in the rows concerning the '# of aircraft attacking' and 'Difference between ACF and hit points'. The entry should read

"7 to 12".

## Page 45

### 10 – ACTION PHASE

Penultimate bullet should read:

- “Fire Tests (10.9)”

#### 10.2 – Testing for Critical Damage to Ships

##### Hits on Merchants and AMCs

As elsewhere the text of this paragraph is revised to read:

“Merchants and AMCs roll an additional test against the CV to see if they suffer more critical damage, over and above the normal number of rolls. In the case of torpedo hits, they roll two tests for each hit.”

##### Raking Fire

The text is revised to read as follows:

“If a ship is hit by raking fire, roll an additional test against the CV to see if they suffer more critical damage, over and above the normal number of rolls. In the case of Merchants and AMCs, they roll two additional tests for each hit.”

##### Optional Rule I – Unstable Explosives

The text in the final sentence of the first paragraph should be amended to read:

“... if the shooting ship in question...”

## Page 46

#### 10.4 – Armour Protection

##### Armoured Flight Deck

The 3rd paragraph in this section should be altered to read:

“If a Carrier does not have this trait on the ship data sheet, then the carrier has no protection against the three results on the Carrier Critical Damage Table where the Armoured Flight Deck armour would apply.”

#### 10.5 – “Spending” the CV

Near the end of the first paragraph it should read:

“..., as shown. (See the example below.) Unless...”

## Page 47

#### 10.7 – Loss of Weapons

At the end of the 3rd bullet add the sentence:

“In some circumstances it may be necessary to randomise which weapons are lost.”

## Page 48

##### OTHER guns:

Change the 1st paragraph to read:

“... loss of CRF, MRF or ASW.”

Delete the second sentence.

#### 10.10 – Collateral Damage

In the first paragraph replace everything apart from the FIRST sentence with:

“Each ship must carry out a Fire Test and also test to see if it suffers other Critical Damage. For both the Fire and the Critical Damage tests, Magazine explosions use the CV of the magazine that exploded as the target value, while Carrier Fuel explosions use the carrier’s original Handling value (H) as the target value.”

In the second paragraph replace everything except the LAST sentence with:

“The tests are rolled separately. If the Critical Damage test was successful, the effect is applied using the CV of the Magazine or the carrier’s original H as appropriate. The testing vessel rolls on the Structural Critical Damage Table, unless it is a carrier in which case the Carrier Critical Damage Table is used.”

## Page 49

### Structural Critical Damage Table

#### Result ‘7 – 9’

Under the entry referring to smoke, add the following sentence:

“Remove any smoke screen attached to this ship immediately.”

#### Result ‘10’

Change the second line text to read:

“When Steering Value (SV) has been reduced to 0, ...”

#### Result ‘12’

Change the effects of the 2nd and 3rd hits to read:

“2nd hit: Lose all spotter planes and launch capability at a cost of [4]; immediately roll a Fire Test – Re-roll on... etc.”

“3rd hit: Lose all Gunnery Radar at a cost of [5]; MAIN, OTHER and AA Fire with LRF all lose the +1 to hit modifier – Re-roll on ... etc”

Delete the two asterisk (\* and \*\*) notes.

Insert the following text:

“The effects are shown in the order in which they get applied. If a ship is not equipped with any of the items, drop down the table until a valid result is possible. When no valid result is available treat as an effect that “cannot be applied” as described in the rules.”

#### Result ‘14 – 20’

Change the text referring to CRF etc. to read:

“Any ASW⇒MRF⇒CRF factors will suffer incidental damage.(⇒ denotes order in which these are lost)”

**Page 50****Carrier/Air Base Critical Damage Table****Result '7 – 9'**

Add the following text:

“Lose (optional) smoke making ability from the first hit. Remove any smoke screen attached to this ship immediately.”

**Result '10'**

Change the second line text to read:

“When Steering Value (SV) has been reduced to 0, ...”

**Result '12'**

Change the effects of the 2nd hit to read:

“2nd hit: Lose all Gunnery Radar at a cost of [5]; MAIN, OTHER and AA Fire with LRF all lose the +1 to hit modifier – Re-roll on ... etc”

Delete the asterisk (\*) note.

Insert the following text:

“The effects are shown in the order in which they get applied. If a ship is not equipped with any of the items, drop down the table until a valid result is possible. When no valid result is available treat as an effect that “cannot be applied” as described in the rules.”

**Result '14'**

Change the text referring to CRF etc. to read:

“Any MRF⇒CRF factors will suffer incidental damage.(⇒ denotes order in which these are lost)”

Delete reference to torpedoes.

**Page 51****Underwater Critical Damage Table****Result 'Bow 15'**

Change the second line text to read:

“When Steering Value (SV) has been reduced to 0, ...”

**Result 'Bow 16'**

There is an “operator error” here. It should read “As 15 / 12–14 / 11 –15...” (in other words “the row above”).

**Result '20'**

Change the text referring to CRF etc. to read:

“Any ASW⇒MRF⇒CRF factors will suffer incidental damage.(⇒ denotes order in which these are lost)”

**Page 52****11 – ACTION PHASE – SPECIAL RULES**

In the list of rules at the start of the section, change the text to read:

“Shipborne Aircraft (11.1)”

**11.1 – Spotting Aircraft**

Change the header to read “Ship-borne Aircraft”

The whole of this section is being expanded in the next edition. Some of the changes are presented here, these being more of a clarification.

After the 2nd paragraph insert the following two points:

“Ship-borne aircraft must be launched during the course of the game. They cannot be deployed on-table at the start.

Ship-borne aircraft move like other aircraft in the movement phase. In the Action Phase they are activated at the same time as their “parent” squadron.”

Change the 1st sentence of the current 3rd paragraph to read:

“If the squadron of ships is equipped with one or more aircraft, each ship may attempt to launch one aircraft per turn, when it is activated during an Action Phase. This requires ...”

Insert the following before the final sentence of the paragraph:

“Launching larger numbers of aircraft might take several turns. Aircraft launched in subsequent turns to replace losses are automatically added to the stand.”

Insert before the current 4th paragraph:

“Aircraft that are successfully launched from a squadron of ships are all placed in ONE stand, which is regarded as a new Squadron (of aircraft). This stand is placed in contact with one of the ships in the squadron. It remains in contact until it reaches the desired strength. If this means that the launch will be spread over several turns, the aircraft stand is moved with the squadron of ships when it moves. The stand does not have to stay in contact with the same ship but must be in contact with one of the ships of the squadron.”

The current 4th paragraph is changed to read:

“When the owning player is satisfied that he has enough aircraft in the stand it can be moved immediately, up to its move distance, as if it had been launched from an aircraft carrier. Note however that the morale of the stand is based on the number of aircraft in the stand when it moves out of contact with the ship squadron. If it is attacked while in contact with its “parent” ships any losses are ignored for the purpose of morale, as the morale threshold is only set when the stand leaves the ships. While such aircraft do have ACF values, it is not recommended that they join combat with more capable aircraft.”

Insert the following paragraph after the current 4th paragraph:

“Aircraft can be “topped up” as required during subsequent Action Phases by launching further aircraft. These “top up” aircraft do not increase the morale threshold, but they do replace any losses incurred before the stand needs to test for morale.”

**Page 52 (continued)**

**Spotting aircraft and Command**

The current section is replaced by the following:

**Command and Crew Quality of Ship-borne aircraft**

“A stand of Ship-borne aircraft is treated as an independent squadron, and always has a Command Value of +0. (This is to avoid having to change the current Initiative modifiers each time a stand of spotter aircraft is launched.) They have the Crew Quality of the ships in the squadron, but if there are varied levels of Crew Quality, they take the lowest current value among the ships that launched aircraft. This means that you can hold back aircraft from a ship where the Crew Quality is lower than that on the other ships.”

**Spotting Fall of Shot for gunnery**

Insert a new bullet at the start of the section:

- “Aircraft cannot carry out gunfire spotting if there is an enemy fighter stand in contact with the spotter stand, unless the enemy fighter is itself contacted by a friendly fighter stand.”

Change the current first bullet to read:

- “Aircraft cannot spot for gunnery at night.”

The final bullet is changed to read:

- “The stand of aircraft spotting for gunnery can make a number of Crew Tests based on the number of aircraft in the stand. Each successful Crew Test allows 1 ship in the parent squadron to attack 1 target ship in visibility range of the spotter (and gun range of the ship). A ship can use all its gun batteries against this target if they bear, and have the range. Several ships could attack a single target vessel. It is not possible, however, for one ship to attack more than one target (with different gun batteries) when using gunnery spotters.”

The Gunnery ‘On Target’ Table is removed (it is the same as the normal gunnery table). The modifiers table is changed as follows:

<b>Using Ship-borne spotting aircraft</b>	
Number of aircraft	# of tests
1 – 2	1
3 – 6	2
7 – 12	3
<b>Gunnery ‘To Hit’ Modifiers when using spotting aircraft</b>	
Crew Quality	+ 2 to – 2
# of guns shooting at target	
1 – 2 [1 roll for Critical Damage]	– 1
3 – 6 [2 rolls for Critical Damage]	+ 0
7 – 12 [3 rolls for Critical Damage]	+ 1
13 – 20 [4 rolls for Critical Damage]	+ 2
21 and over [5 rolls for Critical Damage]	+ 3
Shooting ship can also see target	+ 1
Target size modifier	+ 3 to – 4
Per Splash Marker on shooting and target vessels	– 1
Per Flak Marker on spotting aircraft	
Gunnery Modifier	+ ? to – ?
Target damaged steering (SV = 0)	+ 1
Target moving <i>Slowly</i>	+ 1
Target <i>Stopped</i> or is a Land Target	Re-roll misses

In addition, there will be new rules concerning Anti-aircraft fire (they can be shot at by AA), how to recover these aircraft, and the effects of morale.

**11.2 – Transferring Commanders**

The text should read:

“... must have moved *Slowly*, and the bows...”

**11.3 – Mixed Gun batteries**

These rules will be rewritten for clarity in the next edition. In brief, there will be restrictions on what factors get applied (assuming a choice):

- The worst IP is used
- The best CV is used
- The worst penetration is used.

**Page 53**

**11.5 – Double-Deck turrets**

These rules will be rewritten for clarity in the next edition.

**Page 54**

**11.7 – Japanese WW2 Torpedoes**

**Reloading**

The 3rd sentence of paragraph 2 should be replaced with the following:

“To do so requires that the ship has moved *Slowly* during the Movement Phase of this turn, and passes a Crew Test in the current Action Phase. A d10 is rolled, modified as below, requiring 6 or better to succeed.”

**Jettisoning Torpedoes**

The end of the first paragraph should read:

“..., when he is activating the squadron concerned.”

**11.8 – Japanese Special AA Weapons**

This section will be rewritten to be clearer how both weapon types operate.

**Page 56**

**12.2 – Purchasing Aircraft and payload**

Add a new sentence at the start of the 4th paragraph:

“The maximum number of aircraft permitted in a squadron is 27.”

**Page 57**

**12.5 – Operating Carriers and Air Bases**

**Aircraft Handling**

There is an unnecessary ‘\*’ in the first bullet point.

**Effects of Damage on Handling**

This should be changed to read:

**“Effects of Steering Damage on Handling”**

Next, delete the first paragraph of the section. Next change the remaining text to read:

“If the Carrier’s Steering is Damaged (Steering Value =0), then it cannot launch or recover aircraft.”

**Page 57 (continued)****12.6 – Landing Aircraft**

Alter the end of the 3rd paragraph to read:

“... (or more if the carrier is moving *Slowly*).”

**Enemy Contact**

Change the end of the paragraph to read:

“... Intercept Attack when it tries to land (based on...)”

**Page 58****12.9 – Taking Off**

Change the 2nd sentence of the first paragraph to read:

“... or its steering is damaged (SV = 0).”

In the 2nd paragraph insert after the 3rd sentence:

“... in the table. If a carrier is moving *Slowly* then the cost in H is increased as shown in the table. It is permissible...”

**Page 60****13.1 – Ship Morale Tests**

Insert before the 3rd paragraph starting “If the test...”

“If the ship is in an area of Bad Weather it must re-roll a successful Morale Test.”

**13.2 – Aircraft Stand Morale Tests**

Insert before the 3rd paragraph starting “If the test...”

“If the stand is in an area of Bad Weather it must re-roll a successful Morale Test.”

**Page 61****13.3 – Squadron Morale Tests**

Insert before the 4th paragraph starting “If the test...”

“If the Squadron flagship is in an area of Bad Weather the squadron must re-roll a successful Morale Test.”

Optional Rule K – Inflexible Command Structure

The last paragraph should read:

“... instead of 1. Japanese forces re-roll any failed Ship, Stand or Squadron Morale Tests (this includes tests for Air Bases). If the...”

**Page 62****14 – AIR BASES, FORTS AND GUN BATTERIES**

Add at the end of the paragraph:

“It is assumed that an air base is capable of handling any type of aircraft, appropriate to its locations. This means that an island air base is likely to have to accommodate flying boats and float planes as well and land-based aircraft.”

**14.1 – Constructing Air Bases**

Add to the 2nd Bullet:

“Each point of H costs 10 points.”

Add to the 4th Bullet:

“Each point of RRR costs 10 points.”

The box that splits up the text of the 5th bullet refers to the 4th.

Add to the 5th Bullet:

“Each point of S costs 10 points.”

In the 6th Bullet the box shows the figure 22, this should be 25 (the value of H).

**Defensive Weapons**

Add at the end of the 1st paragraph:

“The costs of weapons are calculated as follows:

Each CRF factor costs 2 points

Each MRF factor costs 5 points

Each LRF factor costs 10 or 20\* points

\*Note that in the case of LRF Allied weapons can be given VT fuses from 1943 onwards, which cost 20 points.”

**Points Values**

The text of this should be changed to read:

“The points value is calculated using the costs for each of the following elements (shown above): S, H, RRR, LRF, MRF, CRF, plus any additional guns. These values are calculated taking account of their standard Crew Quality rating of C.”

**14.2 – Constructing Forts and Gun Batteries**

Change the text of the 6th bullet to read:

“The points value is calculated using the costs for each of the following elements: S, LRF, MRF, CRF, plus any additional guns. These values are calculated taking account of their standard Crew Quality of C.”

**Page 67****Using Mines and Submarines in a game**

Add a new 3rd Bullet:

- Mines automatically generate one or more free minesweepers for the opponent.

Add a new 5th Bullet:

- Vessels with ASW weapons show these on their Data Sheets and the costs are included. Maritime Patrol Aircraft which have an ASW capability are shown with an additional entry in the Aircraft Data Booklets taking account of the extra cost.

**Effect on Forces “bought” for your game**

Delete this section.

**Page 69****Ship Movement Phase****Ramming Submarines**

Change the 2nd paragraph after the bullets in the left hand column to read:

“... re-roll a failed test against the CV to see if they suffer Underwater Critical Damage.”

Change the 3rd paragraph after the bullets to read:

“Merchant vessels and Armed Merchant Cruisers (AMCs) roll an additional test against the CV to see if they suffer more critical damage, and re-roll either of these tests if they fail, because they have PUP.”

**Page 69 (continued)**

**Action Phase**

**Mine attacks**

Change the last sentence of the 2nd paragraph to read:

“Splash markers are ignored when making mine attacks, but do create a Splash marker if they hit.”

In the Mine Attacks table, make the following alterations:

Change the text in the steering row to read:

“Target has damaged steering (SV =0)”

Change the next row to read:

“Target is moving *Slowly*”

After the paragraph above the bullets, add the following:

“If a stand of Type “**X**” vessels is hit by a minefield, one vessel is eliminated for each hit.”

Change the first bullet to read:

- “If the target vessel suffers from Poor Underwater Protection (PUP) re-roll a failed test against the CV to see if it suffers Underwater Critical Damage.”

Change the 2nd bullet to read:

- “Merchant vessels and Armed Merchant Cruisers (AMCs) roll an additional test against the CV to see if they suffer more critical damage, and re-roll either of these tests if they fail, because they have PUP.”

**Page 70**

**Reloading Torpedoes**

Change the first sentence to read:

“Internal torpedoes can be reloaded by a submarine that is on table; external torpedo tubes cannot be reloaded during a game.”

**Ship ASW factors**

Here there are two options:

1) This part of the rules can be changed as follows if you wish to use the original ship data record sheets, which do not incorporate ASW weapons.

Change the start of the first sentence to read:

“Ships with an ASW capability have attack factors (d20)...”

Change the 2nd sentence to read:

“Note that some values are further modified by date.”

Or 2) If you want to make use of the new data sheets, then the Ship ASW Factors paragraph is replaced with the following, and the table is deleted:

“Ships with an ASW attack capability have their weapons shown on the data sheets. ASW weapons are factors (using d20 to hit their target), in the main as Depth Charges. Some Allied ships carry Ahead-Throwing weapons, such as the Hedgehog, Mousetrap and Squid. For the purpose of the rules these three weapon types are used in the same way. The record sheet shows the weapon type ‘DC’ or ‘ATW’, the arc into which they can be used, and a number of boxes, each representing one factor. Factors can be lost due to incidental damage. There is no ammunition constraint for ASW weapons.”

**Aircraft ASW factors**

Replace the first sentence with the following:

“Maritime Patrol Aircraft can be purchased with or without an ASW capability, as shown in the Aircraft data Booklets. The aircraft data lists...”

**ASW Attacks with ships**

Again here are two options.

1) If you want to use the current rules and ship data cards, change the start of the paragraph to read:

“... cannot move further than 15cm. If the ship is moving slowly (at its MVR or less) then it gains an attack bonus. The attack factors...”

Or 2) If you want to use the new data cards and revised rules, replace the paragraph of the rules as follows:

“ASW attacks by ships take place in an area of effect with ranges measured from either bow corner of the attacking ship’s base. Depth Charge attacks (DC) take place into arc ‘Z’ of the attacking ship with a range of 10cm. Attacks with Ahead-Throwing Weapons (ATW) take place into Arc ‘A’ of the attacking ship, with a range of 5cm.

The attacking ship cannot move further than 15cm. If the ship is moving slowly (at its MVR or less) then it gains an attack bonus. The attack factors may be distributed as the attacking player wishes to targets in the appropriate arcs. They cannot be applied to a submarine that has gone “Deep”.”

**Allied use of FIDO**

There is a “cut and paste” error here. Delete:

“to base and refuelled and re-armed”

The appropriate text (added at the end of the section) would be:

“If the stand returns to base the attack can be restored to the stand if it is refuelled and re-armed.”

**Resolving ASW attacks**

There are some changes here.

In the attack modifiers:

The third row should NOT be shaded.

Replace the 4th row (Hydrophones) with:

“Attacked by Ahead Throwing Weapon from 1944”

with a modifier of +1.

Insert a new 5th row:

“Attacking Ship moving *Slowly*”

with a modifier of +1

In the Submarine ASW saving throws, delete the last two rows and replace them with:

“Attacked by any Ahead Throwing Weapon”

with a modifier of – 1.

**Critical Hits on ASW vessels**

Change the text to read:

“ASW factors are lost as part of Incidental Weapon loss. Please refer to the rules section concerned with ‘Loss of Weapon’.”

## ***CARRIER AIRCRAFT AND AIR BASE HANDLING SHEETS***

These appear in the rules and Templates. The left hand and right hand boxes and should be amended as follows:

At the top right of the sheet it shows '(H)' by the RRR Limit. Change this to read "(RRR)".

On the Carrier Aircraft Handling sheets the following additional alterations are required.

In the upper halves of the boxes, delete reference to "Ship has damaged steering"

In the lower halves change the text referring to steering to read:

"Ship has damaged steering (SV = 0)"

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*The following pages contain replacement pages for your copy of Edition 1.0B of the rules.*

*So you can print these double-sided, where relevant the pages on “the back” of changed pages have been included.*

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### 3 — COMMAND AND CREW

The game mechanism requires each squadron to have a commander. From around 1920 onwards the added factor of air power is introduced. Command and Crew for air formations is handled in the same fashion as ships.

In a small battle you could choose to place a commander on each vessel (turning each into a squadron of 1), though this will have implications for the points values of the forces, as you will see. The system requires the players to randomly generate command values.

Similarly, ship and aircraft crews are also rated using the same random generation system. Normally we would say that you should apply the same crew quality to a whole squadron, if only for ease of play. In a small game, you could determine the crew for each ship.

#### Command and Crew when using Aircraft

If you are using aircraft carriers or air bases, the whole establishment of aircrew and commanders on a carrier or base has the same ratings applied to its air squadrons. The Carrier (or Air base) has its own Command and Crew Quality, determined separately from the values for the Aircraft Squadrons which operate from them.

#### Placing Commanders and Crew

Commanders and crew that have been created are attached to squadrons after all ratings have been generated. The best rating ought to be applied to the best squadron. Formations that were known historically to have been ineptly commanded or fought badly ought to be given the worst.

Therefore, work out how many commanders and crews you need, generate the requisite number of values, then allocate them to squadrons, ships and aircraft.

#### National Characteristics

Having initially wished to avoid making valuations about national characteristics, we discussed the matter further and decided that it was appropriate to do so, as long as it provided a balanced method of generating the values.

There are two tables showing an evaluation of national characteristics into bands A to E for given periods of time, one for ships and the other for aircraft. While these are based on contemporary observations and battle reports, they are subjective, and are not intended to denigrate any nation or impugn the bravery and commitment of their armed forces. They are a reflection of how we feel that periods of inertia or intense combat will affect the traits for Command and Crew.

Air Commanders and Crew benefit in real life from being selected from the best recruits. For this reason you will see that we have set a default Command and Crew value in the Air table. This is applied to all nations, with the exceptions shown

If you disagree with our evaluation, which we understand that you might, then you should randomise Command and Crew using Band C. Alternatively, you could just allocate a Command and Crew value of +0, effectively ignoring Command and Crew Quality. You might wish to do that in the first few games while you are getting to know the underlying system. In this case you must use the points value identified as the Base Value on the Ship Data Sheets .

Nationality	Period	Command	Crew
<b>Ships</b>			
Austria-Hungary	—	D	D
China	—	D	E
France (Vichy) (FNFL)	To 1940 1940 – 1942 1940 – 1945	C B D	D E C
Germany	To 1917 1918 – 1921 1922 – 1942 1943 – 1945	A E C D	B E A D
Great Britain	To 1916 1917 – 1920 1921 – 1942 1943 – 1945	C B C A	D C C B
Italy	To 1920 1921 – 1945	C C	C D
Japan	To 1942 1943 1944 1945	A B D E	A C D E
Netherlands (Europe) (Far East) (All)	To 1930 1931 – 1942 1931 – 1942 1943 – 1945	C C D B	C C C C
Russia	To 1905 1906 – 1917 1918 – 1945	E C C	C E C
Spain (Civil War)	— Both Sides	C D	D D
United States	To 1930 1931 – 1942 1943 1944 1945	B E C A A	B D C A B
Denmark, Finland, Greece, Norway, Poland, Portugal, Sweden	—	C	C
Other Nations	Warships	C	D
All Nations	Armed Merchants Merchants	C E*	C E*

\* In this case you might use a flat value of – 2 instead for both.

Nationality	Period	Command	Crew
<b>Aircraft and Land Installations</b>			
All Nations and Periods except those shown below		C	D
Germany	1937 – 1942 1943 – 1945	A D	A D
Great Britain	1921 – 1942 1943 – 1945	C A	C B
Italy	1937 – 1945	D	D
Japan	1936 – 1942 1943 1944 – 1945 Kamikaze	A B C C	A B D C
United States	1931 – 1943 1944 – 1945	B A	B A
All Air Bases, Forts or Gun Batteries, regardless of Nationality		C	C

**An explanation of the banding**

- A Superior levels of Command or Crew with better training, well-led crew and well-motivated forces. The points values of ships and aircraft which are crewed using this band include an increase of 10% over the base value.
- B Above average levels of Command and Crew, with some experience in combat. The points values of ships and aircraft which are crewed using this band include an increase of 5% over the base value.
- C A broad range of average values reflecting widely differing levels of experience or sources of manpower.
- D Below average levels of Command and Crew, reflecting combat losses in Command and Crew, or political interference with training, thereby reducing the effectiveness of units. The points values of ships and aircraft which are crewed using this band include a reduction of 5% below the base value.
- E Inferior levels of Command or Crew with little or no training, badly-led crew and poorly-motivated forces. The points values of ships and aircraft which are crewed using this band include a reduction of 10% below the base value.

The table below is used for the generation of both Command and Crew. Select the band to be used, roll a d10, and read the resulting Command or Crew modifier, and Command radius or distance from the bottom row. The costs of ship and air Commanders are shown in each Band. Command costs for vessels classified as Type “X” are calculated in the same way as aircraft, not ships.

<b>Band (Command Cost)</b>	<b>Scores (d10)</b>				
A (Ship 2500; air 600)	—	—	1, 2	3 – 8	9, 10
B (Ship 2000; air 500 )	—	1	2 – 5	6 – 9	10
C (Ship 1600; air 400)	1	2, 3	4 – 7	8, 9	10
D (Ship 1200; air 300)	1	2 – 5	6 – 9	10	—
E (Ship 900; air 200)	1, 2	3 – 8	9, 10	—	—
Resulting Modifier	- 2	- 1	+ 0	+ 1	+ 2
Command radius (ship)	20 cm	30 cm	40 cm	50 cm	60 cm
Command distance (air)	10 cm	15 cm	20 cm	25 cm	30 cm

**3.1 – Commanders**

Each squadron must have a Commander, who is ranked for tactical skill and initiative, providing a Command Modifier used during various tests in the game. It is also used when testing to bring “off table” forces, such as reserves, into the action. The location of a ship Squadron Commander must be noted on the appropriate record sheet and also be indicated on the models, perhaps with a small flag. It is not necessary to indicate the location of an aircraft Squadron Commander, as the command distance is handled differently.

**Command Costs**

The cost of a commander is determined by his national characteristics and the date of the action. The costs are shown in the table above. The final result may not always be what you wanted; you may be lucky and get a better commander, or unlucky and get a worse one... The cost remains the same.

**Command Radius for ships**

A commander of a squadron of ships has a command radius from his vessel, which is determined by his value. It is desirable that all ships in a squadron should be within the command radius of the vessel where their commander is located. This is measured between the nearest front corners of the bases.

These rules do not go into the intricacies of how command is exercised in the squadron. Morse, flags, signal lamps, radios etc are looked after by the Commander’s team on his ship, and their efficiency is factored into the radius and the command cost. If a

*A player plans to field a British force in 1943 with four squadrons of ships and two of aircraft. The aircraft are based on a carrier, which is in one of the squadrons of ships. In both cases the Command is generated using Band A and Crew Band B. Each commander for a ship squadron will cost him 2500 points (x4) , and for aircraft 600 points (x2).*

*He rolls 4 d10 for the ships’ commanders, which come up 3, 6, 9 and 9, while 1 d10 for the aircraft comes up 5. He then rolls for the ships’ crew with the results 2, 3, 5 and 10, while the single roll for the aircraft crew comes up 4.*

*For the purpose of the example we are rolling ships’ Crew Quality by squadron. It is equally possible if you wish to generate the Crew Quality by ship, which means more dice rolls, but otherwise the system is the same.*

*For aircraft, our system is based on the view that the Crew and Command will generally be the same on the base where they are located, so we only roll one Command and one Crew value for each carrier or base, and apply these to both squadrons based on the carrier.*

*The results are read in the bottom row of the table, which shows the Crew or Command modifier and Command radius for the score read from the appropriate row above. Looking at the results in the table, the Commanders (using Band A) give two ship commanders of + 1 (the 3 and the 6) and two of + 2 (the two 9’s). The aircraft commanders are + 1 (the 5).*

*He then looks at the Crew (using Band B) and has three squadrons of ships with Crew Quality + 0 (the 2, 3 and the 5) and one of + 2 (the 10). The aircraft crews are + 0 (the 4).*

*Having generated these values, the player can assign commanders and crews to the ship squadrons as he feels fit, perhaps so that certain powerful ships get an extra edge. This applies equally if you have generated Crew Quality to each individual ship, the player can place them where he wishes.*

*For the purpose of later examples, his Italian opponent rolls for 5 ship squadrons (and no aircraft) with Command (Band C) and Crew (Band D) giving one Commander of - 1 and four of + 0, while all the Crew Quality come out at +0.*

vessel is not within the command radius of the squadron flagship, it is deemed to be “Out of Command.”

**Actions prior to 1910**

For actions prior to 1910 (or even 1922 if both players agree), the command radius cannot exceed the prevailing visibility distance. This reflects the effect of having little or no wireless telegraphy. The ships in a squadron must be able to see their squadron flagship (cf. – rules on visibility elsewhere).

**Going Out of Command**

A ship may have to be dropped out of formation during movement. This may be due to damage that causes it to reduce speed below that of its squadron, which the player does not wish to be slowed down. At some point the vessel will cease to be in the command radius of the Squadron Commander, at which point it goes “Out of Command” and suffers some limits in the actions it can undertake

**Optional Rule A – Headstrong Commander**

**(Beattie at Jutland)**

This admiral is headstrong and often fails to follow the plans of his superiors. If you choose to field a headstrong Commander as one of your commanders, you must roll his Command Value on Table C in the Set Up rules at the start of every turn before you roll for initiative. This will result in his Command Value being anything between - 2 and + 2. When the Command Value is determined it is applicable for the single game turn.

in the Action Phase.

### **Command Distance for aircraft**

A squadron of aircraft has a more flexible command structure, and each element in a squadron must be within command distance of another element in the squadron. Command distances are measured between the nearest corners of aircraft stands.

It may happen that a squadron gets split into two or more groups of elements if linking elements in the chain have been destroyed. Only one group may be “In Command” though it is up to the player to choose which, the others being “Out of Command”. This selection can vary from turn to turn.

Lines of command for aircraft cannot be traced through areas of bad weather.

### **“In Command” and “Out of Command”**

Most actions, especially those involving combat, require a ship or air element to be “In Command”. There are a few actions that are also possible if “Out of Command”. Actions and their command requirements are indicated in the rules concerned.

### **Command Casualties**

When a commander of a squadron of ships is lost due to the ship sinking, or his being killed outright by a critical hit, he is immediately replaced. The replacement will automatically be 1 level worse than his predecessor, and the value can fall below – 2. He has a command radius appropriate to the new value. If the rating falls to – 3 or worse, the command radius remains at the minimum of 20 cm.

If a squadron flagship is lost, then the player must immediately nominate a vessel in the squadron to be the location of the new flagship. The ship can be anywhere on the table, not necessarily “In Command.”

### **3.2 – Crew**

In real life the captain of every vessel is responsible for the efficient running of his vessel. In game terms this is dealt with by giving each crew a rating, referred to as Crew Quality, reflecting their training and ability to work together, not just on their own ship, but also with other vessels in their squadron. The modifier is applied in combat and to nearly all the tests in the game.

Aircrew are generated in the same way as ships’ crews, as described earlier.

### **3.3 – Tactical Doctrine for Aircraft**

As mentioned earlier, aircraft are represented by stands of aircraft which comprise a number of planes. As far as possible these should reflect proper formation sizes. For the purposes of the game there are three distinct groups of aircraft types. For both practical reasons and for game balance aircraft have to be deployed as follows:

- Fighters (and Fighter Bombers) operate using stands with a minimum number of aircraft as shown in the table.
- Shipboard aircraft used for Gunnery Spotting always operate with one aircraft per stand.
- Maritime patrol and ASW aircraft are always deployed as single aircraft in a stand, though you can group several stands in one squadron if you wish.
- We recommend that aircraft attacking with bombs, torpedoes, guns and rockets operate in multiples of 9 or more per stand. This is because stands with lower numbers are quite ‘flimsy’ in battle, and also because they can be too powerful in some circumstances.

As a rule of thumb, bomber aircraft operate in multiples of 3 in all cases except for Italy, where multiples of 5 are the norm. These are also the minimum numbers of bomber aircraft that can be put in a stand if historical precedent indicates smaller numbers of aircraft. The absolute minimum number of bomber aircraft that can be put in a stand is 3.

When recreating specific battles you may need to split formations into stands with different numbers of aircraft. Groups of odd numbers of the same aircraft should be combined with others to make up 9’s if possible.

- Bomber and Fighter-bomber aircraft making stand-off attacks can operate in stands with a minimum of 3 aircraft.
- Kamikaze aircraft operate in stands with a minimum of 3 aircraft.
- Level Bombers come in three different types, based on their attack height: Low, Medium, and High level. These have different chances of hitting, worsening as height increases, offset by being less vulnerable to anti aircraft fire.

<b>Aircraft Tactical Doctrine for Fighter-type aircraft</b>		
<b>Nationality</b>	<b>Date</b>	<b>Number</b>
China	1940/1941	2
Finland	1940 1944	2 4
France	1940	5
Germany	up to 1938 1939 onwards	3 4
Great Britain (European Theatre)	up to 1940 1941 1942 onwards	3 3 or 4 4
Great Britain (N. Africa)	up to 1942 1943 onwards	3 4
Great Britain (Far East)	up to 1943 1944 onwards	3 4
Italy	–	3
Japan	–	3
USA	1940 1942 (Navy) 1943/44 (Other)	3 4 4
Russia	up to 1943 from 1944	4 2
Others	–	3

## 4 — TESTS

During the game, squadrons, ships and aircraft will have to undertake a variety of Tests. All of these tests use as their basic modifier either the Command or Crew values. They are all carried out using a d10, and a **final score of 6 or greater is required to pass.**

### **Bad Weather**

The following tests taken by a ship or aircraft stand in an area of Bad Weather are re-rolled if successful.

- Crew Tests
- Damage Control
- Wreck Tests
- Ship Morale Tests
- Squadron morale test if the Squadron flagship is in the area.

### **“The Pyramid”**

A generic term which we came to use during development to define numerical groupings is based on the following structure:

Value:	1 – 2	+ or – 1
being	3 – 6	+ or – 2
checked	7 – 12	+ or – 3
	13 – 20	+ or – 4
	21 or over	+ or – 5

You will observe that the law of diminishing returns applies to this table, just like real life. This works both to your advantage and disadvantage within these rules.

### **4.1 – Crew Tests**

This is the most common test, using the following modifiers:

- Add or deduct the Crew Quality modifier (+ 2 to – 2). Note that the Crew Quality value can fall below – 2.
- Deduct a modifier of – 1 or more depending on the number of fires present (cf. “The Pyramid” above).

#### **Where used**

- Lateral adjustment of ship during movement when Steering is damaged.
- Change of Heading when Steering is damaged.
- To avoid collisions (at – 1 if steering is damaged).
- To avoid grounding (target score adds ship size; re-roll failure if moving slow).
- Laying Smoke (modified by the visibility change modifier of + 2 to – 2).
- Engaging targets at night under various circumstances (see radar and night time rules).
- To enable a ship to carry out any tasks in the Action Phase following a power failure.
- Testing for Flash-less Propellant. (There is a modifier for date and nationality.)
- Japanese ship attempting to reload torpedoes where possible.
- Japanese ship trying to avoid “Long Lance” explosion.
- Catastrophic Flooding in Underwater Critical Damage Table (modified by – 1 if ship has Poor Underwater Protection).
- Fuel and Ammo hit on Carrier Critical Damage Table.
- Attacking targets with kamikaze stands.
- Replace aircraft losses from a stand at an Air Base or on a Carrier.

- Launch an aircraft stand from an Air Base or Carrier.
- Ship Morale Tests

### **4.2 – Command Tests**

- Add or deduct the Command Quality modifier (+ 2 to – 2). Note that the command value can fall below – 2.

#### **Where used**

- Testing for reinforcements, with additional modifier for ships only if entering on the friendly (+ 1) or enemy (– 1) base edge.
- Attacking targets with kamikaze stands.
- Squadron Morale Tests.

### **4.3 – Morale Tests**

#### **Ship Morale Test**

This is a Crew Test (see above). If the Commander of the Squadron is on board then his Command Quality modifier is used instead of the Crew Quality.

#### **Aircraft Stand Morale Test**

This is a modified Crew Test which does not take account of fires.

#### **Squadron Morale Test**

This is a Command Test (see above).

### **4.4 – Other Tests**

#### **Critical Damage Tests**

These are rolled using 1d20, the target score being the Critical Value defined by the rule in question. If this number, or lower, is rolled on the die, Critical Damage has occurred and a further roll of d20 is required on the appropriate Critical Damage Table.

#### **Damage Control**

This is a Crew Test (see above) with additional modifiers for being stopped (+1).

#### **Wreck Test**

This is a Crew Test (see above) with additional modifiers for having 1 or more Damage Control Teams (+ 1 or more – cf. “The Pyramid” above), having Poor Carrier Safety (– 1), having Poor Underwater Protection (– 1).

#### **Magazine Test**

This is a Crew Test (see above) with the Magazine Safety Factor modifier applied (+ 1 to – 1).

#### **Fire Test**

This is similar to a Critical Damage Test, rolling a d20 against a target value as defined in the rule concerned. If the score is equal to or less than the value a fire is started.

## 5.4 – Tactical Visibility

One of the players rolls a d10 on the Tactical Visibility Conditions table, using the regional modifiers shown if appropriate. Tactical Visibility (TV) represents the maximum distance at which targets can be engaged in battle during the game. Note that the size of an individual ship may further restrict its engagement ranges – this distance being the Spotting Distance from a ship (SD).

<b>Tactical Visibility Conditions Table (d10)</b>					
<b>Die Score</b>	<b>Tactical Visibility</b>		<b>Areas of bad weather Roll 1d6</b>		
	<b>Day</b>	<b>Night</b>	<b>Score 1 – 3</b>	<b>Score 4 – 5</b>	<b>Score 6</b>
1 or less	2 RB	1 RB	3	4	5
2-3	3 RB	1 RB	2	3	4
4-7	4 RB	2 RB	1	2	3
8-9	5 RB	2 RB	0	1	2
10 +	6 RB	3 RB	0	0	1
<b>Modifiers to d10</b>					
Arctic (December to February )			– 3		
Arctic (March to May, September to November)			– 2		
Arctic (June to August)			– 1		
North Sea / North Atlantic (December to February) South Atlantic (June to August)			– 2		
North Sea / North and South Atlantic (March to May, September to November)			– 1		
Indian Ocean / South China Sea (January to December) South Pacific (June to August)			+ 1		
South Pacific (March to May, September to November)			+ 2		
South Pacific (December to February)			+3		
Aleutians, Mediterranean, North Sea / North Atlantic (June to August), South Atlantic (December to February), Sea of Japan, North Pacific			+ 0		

*The Italian player, having chosen night, rolls d10 for Tactical Visibility, with 2 coming up on the dice. There are no regional modifiers so the result means that the TV is 1 Range Band. He then rolls d6 for the number of areas of Bad Weather, a 1 is rolled, meaning 2 such areas are provided.*

*If we take a different example, the North Atlantic in January, the modifier is – 2. Our d10 roll of 2 above would become 0, meaning that the TV by day would be 2 Range Bands and 1 by night. The subsequent d6 roll of 1 for Bad Weather would give us 3 such areas.*

### Changes to tactical visibility

Tactical Visibility can change during the game if the unmodified dice rolled for initiative by the players come up with the same score.

### Areas of Bad Weather

Operations can be hampered by localised weather conditions, which may be banks of sea mist or fog, rain squalls, rough seas etc. These are treated in the rules as areas of Bad Weather, represented by irregular shapes about 15 to 20 cm across, placed on the playing area when laying out the Game Environment. Players may of course agree not to include such areas. Such areas extend into the air, so they also have an effect on air units. The initial number of areas of Bad Weather are placed randomly before the game starts using the method for determining terrain placement above. There is no limit (in theory) to the number of areas that are placed in a square. Bad Weather cannot be placed on land, or stacked. If such placement would be required, re-roll a new square if the current square is full, or a new location in a square if there is space.

### Being in an area of Bad Weather

If either front corner of a ship base enters an area of Bad Weather during the Movement Phase or starts its Movement Phase in such an area the movement restrictions which follow apply.

Similarly, if either front corner is in such an area during the Action Phase, the ship is treated as being in the area, and the combat restrictions apply.

### Effects of Bad Weather – Movement

A ship that moves into an area of Bad Weather cannot expend more movement than its MVR within the area.

*A ship with 30 speed and a Manoeuvre Rating (MVR) of 5, starting its move 20 away from an area of Bad Weather that it enters will move 20 outside the area and 5 within it. The other 5 are lost.*

A ship that starts its movement in an area of Bad Weather can only move slowly or be stopped and must be marked accordingly. It is however permitted to make a turn then move, as long as its maximum speed has not fallen below the MVR. If that is the case the rules for turning in that situation still apply (see Movement).

An aircraft stand can move into an area of Bad Weather with no movement penalty, but it cannot leave the area in the same turn.

### Effects of Bad Weather – Combat

An area of Bad Weather blocks Line of Sight unless the shooting ship has radar (q.v.). If a ship is located in an area of Bad Weather it cannot shoot its guns unless it is equipped with radar, and cannot shoot torpedoes.

If a ship target is located in an area of Bad Weather, it cannot be shot at by guns (unless supported by radar). It may be hit by torpedoes, but cannot be selected as a target as part of the torpedo attack routine.

### Effects of Bad Weather – Radar

If the shooting ship is equipped with radar, it can shoot into, out of, through or within an area of bad weather. The ship must first pass a Crew Test to acquire the target with radar in order to be able to fire a gun battery when the LOS is blocked by bad weather.

### Effects of Bad Weather – Game “Tests”

There are many game tests. In all such tests, if the vessel is in an area of Bad Weather, any successes are re-rolled.

## 5.5 – Deployment of Forces

The winner of the Strategic Initiative decides which of the table edges will be his “base edge” for the purposes of deployment. It may be that some scenarios will cause one side or the other to use a specific edge. The choice may be influenced by the presence or absence of terrain features. The opponent has the opposite edge, and the two sides are treated as “neutral”.

Each side may keep up to 50% of its squadrons off-table as reinforcements. The % amount should be agreed between the players beforehand.

The player who lost Strategic Initiative must deploy all his forces (excl. reserves) first. The other player then deploys his forces. Each side must deploy at least one Squadron of Ships or Aircraft.

Squadrons must be deployed so that each ship or aircraft stand is placed no further from the base edge than its movement distance. The ships can be moving in any direction. All squadrons’ ships or aircraft must be in Command.

### 5.6 – Reserve Forces

Players attempt to bring their off tables forces into action during the Movement Phase. This is carried out as an activation of the squadron concerned. Ships can be brought on across your own friendly base edge without restrictions though an entry roll is still required. If you wish to enter across any other table edge the restrictions described below apply, reflecting the fact that you cannot creep up on someone that easily at sea.

**In the turn that they appear on the table, ships may only carry out those actions in the Action Phase that are permitted to ships that are “Out of Command.”**

#### Restrictions on ship entry due to proximity of an enemy

Unless entering over your own base edge, there are two situations that can apply, depending on whether ships on the table have radar:

- 1 You cannot attempt to bring a Squadron of ships onto the playing area if the point of entry is within the Spotting Distance (SD) of an enemy vessel. The distance is based on the enemy ship’s SD shown on its data sheet, which may be reduced by a lower Tactical Visibility range and is measured from the bow of the ship to the entry point.
- 2 A similar prohibition applies if the enemy is equipped with radar, and the point of entry is within gun range of the ship unless...
  - the line of sight is blocked by land or ship models (but not their bases), or
  - the point of entry is within 1RB of a land mass.

In both cases the enemy vessel must be “In Command” and there must be a clear Line of Sight (LOS) for this to be effective.

A clever player may be able to make use of that in some circumstances. Note also that the effect of radar can be significant at night or in low visibility conditions.

#### Restrictions on aircraft entry

There are no restrictions preventing aircraft squadrons from testing for entry. However, in the turn that the aircraft come on table they may not move into contact with an enemy ship or aircraft, nor can they instigate any form of attack.

#### Test for entry

Regardless of the point of entry, all Squadrons are subject to the following test. This is a Command Test, requiring a 6+ to succeed, rolled using a d10. The following modifiers are applied:

<b>Off table Forces entry modifiers (d10)</b>	
Squadron Command Value	+ 2 to – 2
Ships entering over their friendly base edge	+ 1
Ships entering over the enemy base edge	– 1

If successful the testing Squadron is brought on table, the lead ship must enter at the nominated point and is manoeuvred to the end of its movement. As a rule, ships entering the table should come on using their *Normal* speed. If a player wishes, a ship may be moved at its *Slow* speed, for instance if it wishes to carry out Damage Control, or stop. Such ships must be marked accordingly. The ships or aircraft stands following are aligned in formation with the first ship or aircraft stand.

If a squadron cannot deploy all its ships or stands for reasons of space, then some may have to enter next turn (though they do not have to roll). Bear in mind that the number of on-table elements is used to determine the morale of a formation, so a partially deployed squadron of small or weak ships may be at risk.

If the entry test is unsuccessful, the squadron is delayed further and may be tested on a subsequent turn.

### 5.7 – Multi-table Battles (Naval mini-campaigns)

It is possible to have battles ranging over several tables, typically this may be a game of “Hunting the Bismarck”. These may or may not be running with their time “synchronised”.

#### Create a map

Create a map which shows the relative location of each playing area, ideally showing how the tables are linked. Leaving one table on its south edge does not necessarily mean that the ship will enter the north edge of an adjacent table. In addition, bear in mind that the table layout in the venue might not always match the map. For the purpose of the rules ‘tables’ and ‘map areas’ are synonymous.

#### Friendly and Enemy Base Edges

At the start of the game where several tables are in use, certain tables will have friendly base edges (which are automatically enemy base edges to your opponent). These are edges which would represent the edge of the area nearest to a naval base, etc. Most of the rest of the tables will be representing open sea, so all edges in this case are treated as “neutral”. The best way is to have a look at a map and decide among the players how this will be operated. It is recommended that you label the edges that will attract a modifier for table entry.

#### Initiative in Multi table games

In multi-table games, one single initiative roll is carried out using the total values of all squadrons and air bases on all tables.

The effects of drawn initiative are applied to all tables, but determined separately. If one table becomes day, they all do.

The player moving first is determined separately for each table by the player that won the initiative, who also decides which table will be activated first. Of course the side winning initiative each turn always carries out the first combat activation on each table.

All the activities that take place in a game turn are played to completion on one table before moving to the next.

If you have the luxury of many players, then the resolution of each table can be done simultaneously, though it is recommended that the turns are synchronised.

#### Moving between tables/Map areas

Squadrons may move off one table during their movement phase, and they are then placed in the entry box of the “destination” table following the links shown on the overall map.

In the next movement phase on the destination table, when their activation occurs on that table, the squadron rolls to enter as if they are reinforcements. If the roll is successful, the squadron can either enter the table, or they can be moved to the entry box of another game table following the links on the map.

Initially all table edges on the new table are “neutral” unless otherwise determined at the start of the campaign. The first player to successfully roll to enter the table may define any one of the four edges as his “friendly” edge, which automatically makes the opposite edge the “enemy” edge. All subsequent entry rolls are modified appropriately.

Aircraft squadrons can be moved to any destination table.

#### “Table Morale”

If one side’s squadrons on any table are reduced to 50% or below, the survivors must retreat from the table. Squadrons are placed on the entry box of one or more adjacent tables of their owner’s choice. They do not all have to move to the same table. Aircraft can be moved to any table.

#### Winning and Losing

In multi table games the conditions for losing are a bit different: If one side has no forces on any gaming table or “entry box” they lose.

## 5.8– Carrier Battles

These simple rules have been formulated so that players can fight long range carrier battles, such as Midway, within reasonable bounds. Each side deploys its forces in carrier groups on one or more tables, one group per table. All ships must be “In Command”. An air base is treated as a separate group. For game purposes they do not normally move unless damaged (see below). The winner of Strategic Advantage can have air strikes already en route (which may be subject to restrictions in some scenarios) and therefore in “entry boxes” on enemy tables. The other player starts the game with his air assets on his carriers or air bases. The requirement that both sides deploy at least one squadron on a table does not apply.

### Initiative

Initiative is resolved as shown under Multi-table battles above.

### Special Ship Movement Rules

Ship Formations are not moved on the table and each table has a declared nominal speed which should be greater than the largest MVR in the fleet, and also be equal to or lower than the speed of the slowest ship. It might be that some ships will end up moving slow, which will have a negative effect on aircraft operations when launching and recovering aircraft.

If a ship suffers speed damage and its current maximum falls below the nominal speed being used on the table, it must be moved backwards by the difference in speed, unless all the other ships reduce their speed to match. This could mean that a ship gets “reversed” off the table or other ships become rated as “slow”. A ship leaving the table will not be able to re-enter the table later because it cannot repair its speed damage while off table.

If a ship is moved backwards, other vessels are moved to one side to allow this. All vessels must maintain a spacing of at least 1cm after such a manoeuvre. A Crew Test may be needed to enable a damaged ship to carry out the lateral movement.

If a ship has to move slowly to carry out damage control, then the ship is moved backwards by the difference between its slow speed and the nominal speed.

If a ship has stopped for any reason, it is moved backwards by the nominal speed distance.

### No enemy on the table

If there are no enemy forces on the table, ships may be repositioned in any direction in the Ship Movement Phase. The repositioning is in a straight line which may not be traced through a friendly vessel or its base at the moment it is moved. Ships with a speed of 0 cannot be repositioned. Otherwise ships must move either at their slow speed and be marked as such for this turn, or at a speed greater than slow and up to the ship’s maximum speed.

Bear in mind that the enemy may bring aircraft onto the table in the Air Movement Phase, and they will catch the ships with the speed status resulting from the repositioning.

### Off Table forces

Friendly reinforcements roll to enter in the normal fashion. Ships entering are deployed following a successful entry roll and move normally at a speed that is the difference between the nominal speed on the table and their maximum. They are not manoeuvred, just repositioned as described above.

### Winning and Losing

If one side loses its carriers or air bases, it loses the game. If both sides suffer losses then a relative level of victory can be assessed for the purpose of the memoir writers. The game will also end if neither side is capable of launching an effective air strike.

## 5.9 – Breakthrough Actions

Many naval actions are based on the requirement of one force to escape or break through a defensive line while the other aims to prevent this. These are regarded as breakthrough actions.

The player with the fleet trying to break through is assigned 2 points for each of his ships. Half of the total number of these points is defined as Ship Points and the other half as the Victory Point pool. This pool is distributed among the fleet by being allocated to specific vessels, with no vessel being assigned more than half of the points in the Victory Point Pool.

The fleet attempting to break through must exit his forces over the designated escape edge of the table. This will usually be the opposite side of the table from that where he deploys, though players can agree otherwise. Scenarios may also vary this.

In order to avoid defeat, the player attempting to break through must succeed in exiting the table with points adding up to at least half the total combined Ship and Victory points. It does not matter how the Victory points are allocated to vessels.

He loses if fewer than half the combined Ship and Victory points are delivered to the destination. (Exactly half means there is a draw.) Loss of more than half the points also signals the end of the game.

Note that in the case of a breakthrough action, where one side is required to get its forces off the table, such vessels are not regarded as lost for the purposes of squadron morale when they leave the table with morale intact in order to fulfil their mission.

## 5.10 – Convoy Actions

Convoys change the flavour of the game slightly. The players’ objectives shift from prioritising the destruction of the enemy warships to the elimination or protection of the convoy and its cargo. At the set up both sides are recommended to buy forces of equal value, including the merchants (which are relatively cheap). Merchants ships in a convoy must also be placed in Squadrons, and given Command and Crew Quality.

The player with the convoy is assigned 2 points for each of his merchant ships. Half of the total number of these points is defined as Ship Points and the other half as the Cargo Point pool. The pool of Cargo Points is distributed among the merchants by being allocated to specific vessels, with no vessel being assigned more than half of the points in the Cargo Point Pool.

*If you have three ships each must carry 1 point because you cannot put more than half on a ship (which in this case is 1½ which rounds to 2). If you have 4 ships then one or two could carry 2 points.*

In these games the convoy player has two opposite table edges as his base edge. the intercepting player has one of the other edges as his home edge. It does not matter if you play by moving the convoy across the narrower width of a table or the longer distance lengthwise. For a more challenging game use slow merchant ships travelling lengthwise. If using faster warships to carry the goods, then you should run the convoy along the length of the table.

A record is kept of the number of combined Ship and Cargo Points that were available at the start. The Convoy wins if it delivers more than half this number to the destination. If exactly half the value is delivered the game is considered a draw. As a convoy ship is either sunk or reaches its destination, its total value in ship, cargo (and optional bonus points) must be declared. At some point it will become apparent that the convoy player has won or lost, at which point the game ends and the gloating starts.

**Note that cargo may be destroyed due to Critical Damage effects.**

Note that in the case of a convoy action, where one side is required to get some of its forces off the table, such vessels are not regarded as lost for the purposes of squadron morale when they leave the table with morale intact in order to fulfil their mission.

**Using warships to carry cargo**

Many of the battles in the “Slot” round Guadalcanal involved destroyers ferrying troops and supplies to the beleaguered garrison, so it is appropriate to create a method of replicating this on the table.

Firstly, you cannot put cargo on submarines or aircraft. The convoying player buys his fleet and for the purpose of the rules, each vessel provides a Cargo Point. These can be distributed among the vessels involved as if they were merchants, with the same limit as to how much cargo can be placed on a single ship.

A record is kept of the number of Cargo Points that were available at the start. The Convoy wins if it delivers more than half this number to the destination. If exactly half the value is delivered the game is considered a draw.

A warship carrying cargo is required to pass a Crew Test in order to be able to undertake any tasks in each Action Phase. Note that this is a severe restriction so you have to consider carefully which vessels you use to carry the cargo.

If a warship that is carrying cargo is hit in the weapons area, the player hit must take a Crew Test. If you fail the Crew Test, and the weapon hit overcomes the appropriate level of armour on Belt or Deck (if appropriate), then the cargo is hit with no effect on the weapons. If you pass the Crew Test, the hit is resolved as a normal weapons hit.

**Delivering Cargo**

Cargo is normally delivered at the destination when you exit the table. If you are using warships you can change the flavour a bit more by requiring the warship to remain on the table at the destination edge, and undertaking a successful Crew Test in the Action Phase. Modify the test by +1 if slow and +2 if stationary.

When a warship is no longer carrying cargo the restrictions in the Action Phase no longer apply and the ship could be returned to the fight to assist other ships in their cargo run.

**Effect of Morale on Convoys, Escorts and Attackers**

The normal morale rules apply to the warships involved in the action, so that a convoy will also win if the attackers are driven off or sunk. If escorts withdraw or are sunk, the normal rules still apply when the number of surviving squadrons (including those composed of merchants) falls to 50% of the original.

**5.11 – Repair Rules for small campaigns**

In games where players are representing campaigns during which a period of inactivity may occur, it is feasible for some repairs to be effected. The routine below represents action taken to carry out immediate repairs by taking equipment from store, or using expertise on board to repair damage. Repair is carried out in cycles of approximately a week.

The following simple system is offered.

- All wrecks are eliminated, they cannot be repaired.
- Fires on burning ships are brought under control. Power failures are automatically repaired.
- Aircraft stands that have not been eliminated by damage or lost morale are returned to full strength.
- Each squadron totals the original number of Damage Control Teams available from all the surviving ships. This is the number of Repair/Replacement dice.

- Each week, the squadron rolls 1d10 per Repair/Replacement dice calculated from the previous stage. The score on each is modified by the current Command Value of the Squadron C.O., and by –1 if the squadron was on the “losing” side in the previous game. No die can go below 0. Total the result, which is your pool of Repair/Replacement points that are available for the week.
- After the first week, the final result (the pool of Repair/Replacement points) is doubled.
- Repair/Replacement points are spent to replace and repair damaged items at the costs shown in the following table. Nothing can be repaired above its original value.

<b>Repair Costs</b> <i>(Shaded items cannot be repaired during the course of a game.)</i>	
<b>Item</b>	<b>Cost per point repaired</b>
Structure (S)	1
Ship Gunnery Modifier	5
Ship’s Spotting Distance	4
Damage Control Team	5
Fire Control	1
Flotation (F)	2
Crew Quality*	5/15
Command Value*	10/30
Speed	1
Steering	2
Searchlights	3
Search radar	5
DPAA radar	2
MAIN battery radar	4
OTHER battery radar	3 (per battery with +1)
CRF factor	1
MRF factor	2
LRF factor	See repairing weapons
Catapult	4
Carrier Handling and RRR limit	2 per H or RRR
Aircraft stand	1 per aircraft, plus
Original number in stand:	
1 – 2	1
3 – 6	2
7 – 12	3
13 – 20	4
21 and over	5
* These values can be increased by 1 or 2 steps per week. The costs shown in the table are those for increasing by 1 or 2 steps.	

- Functioning weapons which were dependent on ammunition (i.e. torpedoes) are reloaded at a cost of 1 per torpedo reloaded or 3 per Japanese 4.7” AA rocket salvo (see special rules).
- Aircraft stands are replaced at the costs shown which combine a base cost for the number of aircraft originally in the stand plus 1 per aircraft. The type and payload of aircraft cannot be changed. If the players wished to alter the aircraft types or the constitution of stands, then they could agree to purchasing a certain points value of aircraft which replace those in existing formations. The existing commanders and crew are then assigned as described in the Set Up rules.
- Squadrons may now be reorganised if players so wish.
- At this point, either of the players may wish to declare that he is resuming hostilities. If this is the case no further repairs are permitted.

### **Promoting Commanders and Crew gaining experience**

- In either the first or subsequent repair weeks, if the Crew Quality and/or Command Values on a ship have been returned to their original values, they may each be improved by a maximum of 1, at a cost of 15 for Crew Quality and 30 for Command Value. They cannot be improved again until they have been in combat. **These values cannot be increased above +2.**

### **Repairing Weapons**

Normally weapons in the MAIN, OTHER and TORPEDO sections on the Ship Data Sheets cannot be repaired. After the second week of repair, weapon mounts can be replaced. It is assumed that ships have returned to dock and come back to the theatre of operations.

The cost of replacement of a gun mount is worked out as follows:

- Add the IP and CV plus 1 for an open mount, 2 for a shielded mount, 3 for a casemate mount, and 4 for a turreted mount. Add an additional 1 if the mount also provides a Long Range Factor.
- Now multiply this by the number of guns in the mount, and that gives you the cost in points.
- One Long Range Factor is replaced for each contributing mount repaired. The LRF cannot exceed its original value.

The cost of replacement of a torpedo mount is as follows:

- Add the IP and CV and then add the number of tubes.
- In the case of a Japanese reload mount add the number of tubes again to represent the reload system.

### **Optional Rule B – Complicated Plans**

*(This rule is appropriate to World War Two – imagine the Japanese plan that led to the Battle of Midway)*

Forces must have a minimum of two naval squadrons, and at least half the squadrons of ships MUST be kept off as reserves at the start of the game. This does not apply to aircraft (though players may do so if they wish). When attempting to bring on a formation from reserves, after the player has decided where the formation will enter (in accordance with the rules for bringing on reinforcements), he rolls for success using the appropriate rules and modifiers, with an additional +1 per squadron that had not yet been deployed on the table at the start of the turn.

### **Optional Rule C – Fuel Shortages**

*(The Regia Marina was not able to make many sorties due to fuel shortages during the Second World War)*

At least half the forces must be kept off table as reserves. However, the player adds 1 to his initiative roll for each squadron of ships currently in reserve.

**Note that B and C may be combined, in which case there must be at least 4 squadrons and three quarters of the squadrons must be placed in reserve.**

### **Optional Rule D – Optional Aircraft Deployment**

It is difficult for aircraft to find a naval target in the middle of a vast ocean. We suggest that if players agree, a form of randomised deployment is used. A player with aircraft due to make a strike is bound by the requirement to deploy at least one squadron on table at the start. If he is only using aircraft, like one of our examples, then one squadron is deployed at the start.

25% of his aircraft squadrons (rounded to the nearest whole number) must be deployed off table as reserves. Any other squadrons each roll a command test, if this is failed, then the squadron must be placed in reserve. If this passed, the owning player may decide whether to deploy it or place it in reserve.

### **Optional Rule E – (Un)Friendly Fire (Erratic but Determined Air Force)**

Air attacks on friendly ships were not unusual, which led to special recognition measures on upper surfaces in some navies, such as red and white stripes on Italian ships, and the Rising Sun on the tops of turrets in the Japanese navy. If you give your air force this trait, they get a bonus of +1 to bring on reinforcements, however if you fail the test, the nearest friendly squadron within prevailing Tactical Visibility (ignoring targets of Type “X”) may suffer from an air attack by “(un)friendlylies”. The speed of the aircraft and distance from the entry point are ignored. If a ship is within TV then it may be attacked.

If an aircraft squadron fails to enter it must identify a suitable target squadron as described above. Each of its stands that is carrying an attack of any kind that can have an effect on ships randomly selects a target in that squadron of ships.

It must then roll d20 testing using the CV for each type of attack that the stand is carrying. If stands are carrying different attacks, i.e. some have bombs and some have torpedoes, each different type of potential attack is tested. If a stand is carrying more than one torpedo or stand-off weapon, a CV test is carried out for each.

If the CV test is successful, roll on the appropriate Critical Damage Table and apply the effects. No IP damage is caused.

Having applied the effects, the aircraft squadron remains off table, and can roll again later to come on. It does not expend any of its potential attacks when carrying out friendly fire.

*For example, you have a mixed Italian squadron with 3 stands of Stuka dive bombers with a bomb attack (CV 8), and 3 stands of SM-79s with two torpedoes (CV 6) each and some escort fighters. Each stand of Stukas selects a target at random and tests using the CV of the bombs once. If successful the effect is determined on the Structural Critical Damage table. Each stand of SM-79s selects a target and rolls twice for its torpedoes using their CV. If successful apply the results for each hit using the Underwater Critical Damage table. The fighters are ignored.*

*You have an American squadron with some stands of Helldivers with 1600lb (CV 10) and some with 500lb (CV 6) bombs, stands of Avengers with torpedoes (CV 8), escorted by Corsair fighter-bombers carrying rockets (CV 7) and bombs (CV 8). You test for each stand of Helldivers with Bombs, each stand of Avengers with torpedoes. Each tests against its randomised target once and applies Critical damage if successful. In the case of the Corsairs, each target suffers two tests, once each for the bombs and rockets.*

## 6 — ORDER OF PLAY

At the start of the game we recommend that the players total up the Command values of their Commanders of squadrons and air bases deployed on table. This number is used to generate a modifier to the initiative roll, and will change as reinforcements are deployed or squadrons are destroyed. The sequence of play is as follows:

- Players roll for initiative (6.1). This is followed by:
- OPTIONAL Mine Deployment Phase (6.2)
- OPTIONAL Submarine Deployment and Movement Phase (6.3)
- The Ship Movement Phase (6.4).
- The Aircraft Movement Phase (6.5).
- The Action Phase involving both ships and aircraft (6.6).
- The End Phase where morale is assessed (6.7). At this point the outcome of the game may become apparent.

### 6.1 – Initiative Phase

At the start of each turn initiative is rolled for each side. The dice is modified by the current total command modifiers for squadrons and air bases on each side that are deployed on table.

Each side rolls a d10 and modifies the score as follows:

<b>Initiative modifiers (d10)</b>	
Final total (which may be a positive or negative result)	Modifier is + or - ...
+ or - ...	1 – 2
	3 – 6
	7 – 12
	13 – 20
	21 or over

**Scores above 10 are treated as a result of 10; similarly scores below 1 are treated as 1.**

The highest score wins. The winner of initiative decides whether he or his opponent will move first in this game turn. The winner can always move one squadron last. The player moving first this turn moves ships and aircraft first.

Bear in mind that players with off table forces also take a movement activation to roll for a squadron to be deployed from reinforcements, so you might wish to consider who you are going to nominate as first mover.

#### Same dice scores

If the faces on the dice show the same number you must test for a change in the visibility as shown below. After resolving any changes to the Tactical Visibility or areas of Bad Weather, the game resumes and the winner determines who will move first, etc. Should the final score have also been a draw, the dice are re-rolled. If the numbers on the dice match again, you do not carry out another visibility change this turn.

#### Drawn initiative

If the final initiative score is a draw the dice are re-rolled. If the re-rolled dice come up the same a change in visibility is possible.

### Optional Rule F – Radio Chatter

#### (Poor radio discipline)

US radio discipline was particularly poor at the start of the War in the Pacific. The result of this is that the enemy was able to detect the presence of large numbers of ships due to the excessive use of Talk Between Ships radio transmissions.

The player's initiative rolls are reduced by 1. However, the command radius of all squadrons is increased by 10cm.

<b>Tactical Visibility Change Table (d10)</b>				
<b>Die Score</b>	<b>Visibility Change</b>	<b>Areas of bad weather Roll 1d6</b>		
		<b>Score 1 – 3</b>	<b>Score 4 – 5</b>	<b>Score 6</b>
1	- 2 RB	add 3	add 4	add 5
2-3	- 1 RB	add 2	add 3	add 4
4-5	none	add 1	add 2	add 3
6-7	none	—	—	remove 1
8-9	+ 1 RB	—	remove 1	remove 2
10	+ 2 RB	remove 1	remove 2	remove 3

#### Visibility change

If the unmodified dice scores rolled for initiative are the same, the score is used in the Tactical Visibility Change table to see if there is a visibility change. If one player was unable to field aircraft because his opponent chose night over day, he can ask for a new d10 to be re-rolled, and the re-roll result must be applied.

The visibility is changed by the amount shown (in RB). Visibility can never drop below 1 or go above 6 Range Bands. In addition areas of bad weather may be added or removed.

#### Worsening conditions

If the Tactical Visibility Range decreases, add the appropriate number of areas of bad weather. Roll a d6 in the appropriate result row from the previous step.

Areas of bad weather are added randomly in the same way as described under the Set-Up rules (cf. Terrain Placement). You cannot place an area “on top of” a ship so if that would occur, re-roll once for a new square and location. If the result would still place the area on a ship, then the area is discarded.

#### Improving conditions

If the game was taking place at night, and the TV increases to 4 or more, it is assumed that day has broken. Aircraft can now be used.

If the Tactical Visibility Range increases then areas of bad weather may be removed from 2'x2' squares.

Areas are removed randomly by selecting the requisite number of 2' x 2' squares as described under the Set-Up rules (cf. Terrain Placement), and removing all areas of Bad Weather in that square. Note that if you are directed to an empty square of sea, nothing is removed.

*Our British fleet from earlier examples had 4 squadrons of ships and 2 of aircraft. The British player has a total of + 8 in Command values, which will give him + 3 to his initiative die. The Italian had a total of - 1 so his initiative modifier is - 1. The British player rolls a 2, which with his modifier gives him 5. The Italian player rolls 3, which with his modifier makes a 2. If the British player had rolled 8 or better, his result would have been capped at 10. If the Italian had rolled a 1, this would be treated as a roll of 1.*

*If the players had values of + 3 and + 0 respectively, and the British player rolled 7 or more and the Italian rolled a 10, the British value is capped at 10 and the Italian score forces a draw, which requires a re-roll. In the re-roll the British player rolls 1, which becomes a 4, so the Italian can win initiative with any roll above that number.*

*If the drawn initiative score is a 3, the Tactical Visibility range drops immediately by 1 Range Band. In our example a d6 score of 2 means that 2 additional areas of bad weather are placed. If the draw had been a 10, then a d6 score of 4 means that any bad weather in 2 randomly selected 2 foot squares would be removed.*

## 6.2 – Mines Deployment Phase

## 6.3 – Submarine Deployment and Movement Phase

These phases are optional and only used if play involves use of mines and/or submarines. See the *Mines and Submarines Appendix* for details.

## 6.4 – Ship Movement Phase

Starting with the player who was determined to be moving first in this turn, ship squadrons are moved. Activation of squadrons for movement is carried out alternately by the players, though as already stated, the winner of initiative may hold back one squadron to be activated last in the Ship Movement Phase.

- Rolling to bring on reserves is regarded as an activation, regardless of success.
- A ship that has smoke “attached” to it may choose to stop making smoke at the start of its Movement Activation. Otherwise the smoke moves with the ship and can be placed in accordance with the smoke rules after the ship has moved.
- Ships should move at their *Normal* speed, unless their maximum speed has been reduced to below this by damage. If this is the case, they are either at *Slow* speed or are *Stopped*; in either case they are marked accordingly.  
If a player wishes, he may voluntarily move at *Slow* speed, for instance to carry out Damage Control or prepare to stop.  
A ship might be also be *Stopped*.
- There is a possibility that ships may collide during movement. If so, the effect is checked when the ship is moved, and the results are immediately applied to the ships concerned.
- Any Damage Control is carried out by ships in a squadron during the movement activation, after they have moved. They must have moved slowly or be stopped.

## 6.5 – Aircraft Movement Phase

Aircraft squadrons are moved in the same alternating fashion as ship squadrons, with one player able to hold back the movement activation of one squadron to the end of the Aircraft Movement Phase if he wishes.

- Rolling to bring on reserves is regarded as an activation, regardless of success.
- Aircraft squadrons do not have to move, but must still formally be activated, after which they cannot move later this turn.
- An aircraft stand moved out of contact with an enemy Fighter Stand may be subject to an Intercept attack. Intercept is allowed even if the fighter stand is “Out of Command”.
- Aircraft returning to their carrier or base are moved adjacent to it during the movement phase. Aircraft stands that failed their morale while the squadron retained intact morale are moved from the RTB box and placed with those aircraft landing.

## 6.6 – Action Phase

In the Action Phase all ship and aircraft squadrons carry out various actions possible during a turn. Activation of a squadron starts with the player who won initiative this turn, and it can be any squadron, either of ships or aircraft (or mines or submarines). After this, activation alternates between players, the choice is left to the activating player. Multiple activities are permitted if they are possible.

- Ships shoot guns and torpedoes at other ships.
- \* Ships fire AA guns at aircraft.
- \* Ships can attempt to make smoke.

- Carriers or air bases can recover, refuel, replace and rearm, and launch aircraft stands in any order they wish, subject to Handling capacity.
- Aircraft can attack other aircraft.
- Aircraft can attack ships.
- Commanders can be transferred between ships.

To carry out most actions the unit concerned must be “In Command”. Exceptions are marked with (\*).

## 6.7 – End Phase

The LOSER of initiative carries out all his morale tests in order, followed by the other player.

- Remove Morale Test markers as they are carried out.
- It is possible for both players to “lose” due to failed fleet morale at the same time. This would be a draw, though if a player had lost a lower proportion of his forces he may be able to claim a “winning draw”.
- Remove all Splash Markers.
- Remove all Flak markers.
- Fire markers, slow markers, and stopped markers are left in place.
- Remove Illumination markers at night (except from ships that are on fire).
- Remove smoke screens which have no ship “attached” to them.

## 7 — MOVEMENT

### 7.1 – Introduction

There are two Movement Phases, one each for ships and aircraft, and where necessary the interaction between the two elements of sea and air will be explained. Aircraft move after ships because, due to their speed, they can always react to ships' movement.

- **Ship Movement** (7.2).
- Turning (7.3).
- Lateral Course Adjustment (7.4).
- Collisions (7.5).
- Grounding (7.6).
- Damage Control (7.7).
- Deploying Reserves (7.8).
- Ships Leaving the table (7.9).
- **Aircraft Movement** (7.10).
- Interaction between friendly aircraft squadrons (7.11).
- Interaction between opposing aircraft (7.12)
- Intercept Attacks (7.13).
- Interaction between aircraft and surface targets (7.14).
- Aircraft leaving the table (7.15).

#### **Note regarding Smoke**

Only destroyer types can lay smoke in these rules and this is treated as a combat action. Success is not guaranteed, and smoke remains in place until the ship activates for movement next turn.

### 7.2 – Ship Movement

Ships move forward 1 centimetre for each current knot of speed. To maintain simple rules for movement, ships normally move at their *Normal* speed each turn. If their speed has been reduced they may be forced to move at their *Slow* speed. A ship may also move at its *Slow* speed, perhaps to carry out Damage Control or avoid a collision, or preparatory to coming to a Stop. No vessel may be moved more than its current maximum speed.

When the rules need to take account of a ship's speed, this is always treated at being the current maximum, EXCEPT if the vessel is moving *Slowly* (voluntarily or otherwise) or is stopped, which might be to help with damage repairs; in either case it should be marked accordingly.

#### **Ship Speed**

A ship has three possible speed conditions:

- 1 Moving *Normally* (at a speed of at least its MVR+1).
- 2 Moving *Slowly* (at a speed between its MVR and 1).
- 3 A ship might be stopped (its speed is 0).

#### **Acceleration and Deceleration**

A ship cannot move at its full speed in one game turn, and be stopped in the next. A certain amount of time delay has to be involved, but we have decided that this could be kept simple in game terms.

A ship that is moved at its *Normal* speed last turn can change to *Slow* speed in this turn. It is now marked as Moving *Slowly*, and would be able to carry out Damage Control during movement.

If a ship was moving *Slowly* last turn it may continue to move at any *Slow* speed, accelerate to *Normal* speed, or come to a complete stop this turn.

If ship was stopped last turn and wishes to accelerate, its initial movement can be only be at its *Slow* speed this turn.

#### **Moving Slowly**

The minimum speed of all ships is defined as their Manoeuvre Rating (MVR). If the speed of a ship is reduced to between 1 and its MVR, either voluntarily or due to damage, it is marked as Moving *Slowly*. A ship must move *Slowly* if it is planning to carry out Damage Control or transfer a commander between vessels. Japanese ships equipped to reload their torpedo tubes must move *Slowly* in order to do so.

**If you shoot at ships moving at minimum speed or less you get a +1 bonus to hit the target.**

#### **Stopping Ships**

It may be necessary to stop a ship. This is only possible if the vessel has spent the previous turn moving slowly or was involved in a collision. After being stopped for a turn, a ship may accelerate forward or astern.

**If you shoot at ships that are stopped you re-roll misses.**

#### **Moving Astern**

In some cases ships may have to move astern. For game purposes this will usually only occur if there has been a collision and the ships must separate. In such a case at least one of the vessels will have come to a stop. Otherwise a ship that wishes to move astern must spend two turns slowing down, then stopping, and then accelerating to move astern on the third turn. Ships may move astern at a maximum of 25% of their maximum forward speed.

A ship that wishes to move astern must have spent one turn stopped. Its initial move astern may be no more than its MVR, must be at least 1, and it is marked as Moving *Slowly*. If the ship's MVR is GREATER than 25% of its current full forward speed, then the ship may move no faster than the lower figure. After spending one turn Moving *Slowly*, the ship can then move astern at up to 25% of its current full forward speed.

A ship may change its heading while moving astern by using the turning rules. Some vessels will be unable to turn because their MVR is greater than the movement allowance while moving astern. After having moved astern, the ship will take one or more turns to reverse the process and move ahead.

#### **Command effects on ships being slow or stopped**

Ships may have to be dropped out of formation during movement. This may be due to damage that causes them to reduce speed, or they may need to slow to carry out damage control. At some point the vessel may cease to be in the command radius of the Squadron Commander, at which point it goes "Out of Command".

### 7.3 – Turning

All vessels have a manoeuvre rating, referred to as MVR. Turns are made using a 45° template, which is the greatest angle of turn that can be made at one time. Ships may start their movement during the Move Phase with a turn. In order to make a turn, the ship must have unused speed at least equal to its MVR. The turn template is placed by the bow of the ship, and the ship is moved round the angle, after which it must be moved straight ahead for a distance at least equal to its MVR.

If a ship makes one or more changes of course during movement, it is marked with **ONE** Splash Marker after it has been moved.

*A ship with an MVR of 10 and speed of 19 will only ever be able to make 1 turn in a Movement Phase. If the player wants to keep the ship's turn circle as small as possible, then he will go round the turn and then ignore the remaining 9 knots of speed. If the ship had an MVR of 5 and speed of 30, it could make 6 course changes in a game turn.*

### Steering Damage

Steering can be damaged due to Critical Damage. The ship's Steering Value (SV) starts with the same number as the ship's MVR, and the value may be reduced. When the SV reaches 0, the steering is damaged, having an effect during the game. It is a good idea to repair the steering, if possible, to prevent this. After a ship's steering has been damaged a Crew Test is required to make any change of heading, using the modifiers shown below.

<b>Course change modifiers with SV = 0 (d10)</b>	
<b>If the ship is in an area of Bad Weather, re-roll if successful</b>	
Crew Quality	+ 2 to - 2
# Fires on testing ship:	
1 - 2	- 1
3 - 6	- 2
7 - 12	- 3
13 - 20	- 4
21 or over	- 5

If you pass the Crew Test, you can manoeuvre as normal this turn, if you fail then you must move straight ahead at least its MVR. Ships with damaged steering must be marked as such.

**Ships with damaged steering (SV = 0) are attacked at +1 to hit.**

### Reducing the turning circle

If a ship moved *Slowly* on the previous turn, it can reduce its MVR by one half (rounding the result down) and moving at its minimum speed or less. If the effective MVR is reduced to 1 the heading of a ship can be changed to any direction.

A reduction in the turning circle can be attempted during the current Movement Phase and must be declared before the ship is moved. The ship must pass a Crew Test, in which case the rules for reducing the turning circle apply. Regardless of success, the ship is now marked as moving *Slowly*.

### Small ships (Type "X") with small MVR

Ships with an MVR of 1 can be moved in any direction and do not need to use a turn template. They may not trace a line of movement into or through an area of Bad Weather. They suffer the same risks of going aground as other ships.

These vessels may also be swivelled at the end of their movement to "aim" at potential targets. They may not have their heading changed later on in the turn in the Action Phase.

### 7.4 – Lateral course adjustment

The forward movement of a vessel may be impeded by an obstacle. It may be possible to manoeuvre round the obstruction, but sometimes the only course of action may be to maintain the current heading. During movement, a ship may adjust its position laterally by 1 base width to the left or right (this is 2 cm to 4 cm in 1/2400th scale). A ship making a lateral course adjustment may not change course and must spend its entire movement on the same heading. No splash marker is placed during lateral course adjustments.

If the ship is suffering from damaged steering (SV = 0), the ship must pass a Crew Test in order to carry out the manoeuvre.

<b>Lateral course adjustment test modifiers (d10)</b>	
<b>If the ship is in an area of Bad Weather, re-roll if successful</b>	
Crew Quality	+ 2 to - 2
# Fires on testing ship:	
1 - 2	- 1
3 - 6	- 2
7 - 12	- 3
13 - 20	- 4
21 or over	- 5

### 7.5 – Collisions

During the course of play, there will be occasions when there is an interaction between the bases of different ships. This will usually be during movement when ships are manoeuvring. Deliberate ramming of an enemy vessel is discouraged in these rules. Bear in mind that the model ship on the table is many times its actual size in scale, and is only covering a small part of the base.

During movement you can always attempt to move a vessel through a friendly ship. The moving ship must be entirely clear of the other vessel's base after movement is completed. If this is possible, place it at its new location and then test for a collision.

If it is not possible, then the moving ship must be stopped short. If the ship had moved *Slowly* during the previous turn, it can either stop, or move any speed up to its MVR, thus avoiding the need to test for collision. If the distance to the intervening ship is less than the MVR and the ship was moving normally in the previous turn, you must test for collision. In this case the moving ship is also treated as having become stopped and is marked accordingly.

Potential Collisions are resolved after movement of the ship that caused the test to occur, before moving any other ship, as the result may have an effect on their movement.

The collision tests are carried out even if the vessel is of Type "X". The effects are different in that no damage is caused.

### The Collision Test

- Place a splash marker on the moving ship (Ship 1)
- Take a Crew Test for Ship 1 using the modifiers shown below.
  - If this is successful, there is no further effect.
- If it failed, place a further splash marker on Ship 1, and roll a crew test for Ship 2 using the same modifiers.
  - If this is passed there is a glancing blow with no further effect.
- If it failed, there is a collision. Place a splash marker on ship 2.

<b>Collision test modifiers (d10)</b>	
<b>If the ship is in an area of Bad Weather, re-roll if successful</b>	
Crew Quality	+ 2 to - 2
Testing ship testing has damaged steering (SV = 0)	- 1
# Fires on testing ship:	
1 - 2	- 1
3 - 6	- 2
7 - 12	- 3
13 - 20	- 4
21 or over	- 5

### Collision effect

Unless a vessel of Type "X" was involved, a CV test for Underwater Critical Damage is carried out for each vessel, using the other vessel's MVR as the CV. The effect of the hit is generated on the Underwater Critical Damage table. Vessels of Type "X" are deemed to dodge out of the way.

Ships with Poor Underwater Protection (PUP) re-roll a "failed" test for Underwater Critical Damage. This means that a ship with PUP re-rolls a failed test against the CV to see if it suffers Underwater Critical Damage.

Merchant vessels and Armed Merchant Cruisers (AMCs) roll an additional test against the CV to see if they suffer more critical damage (i.e. they make two rolls), and re-roll either of these tests if they fail, because all merchant types have Poor Underwater Protection.

The moving vessel always resolves the Critical Damage Effect result using the "Bow" die score column. The other vessel will roll based on where the first interaction between the bases took place. It will usually be obvious to the players. It may happen that the front of the moving ship's base contacts the corner of the other ship's base. In such a case the hit may be on the side, or on the bow or

stern of the other ship. If more of the front edge of the moving base is to the side of the other ship, then it is a side hit, otherwise it hits the bow or stern of the other ship. In case of difficulties let the dice decide !

The effects of the test are applied immediately to both vessels.

**Colliding with Wrecks**

It is also possible to collide with a wreck. Only the moving ship tests as above and gets a splash marker. If the test fails the moving ship gets another splash marker, and takes S damage equal to the score of 1d6. Hitting a wreck will not remove it.

If the ship suffers any damage, it must next test for Underwater Critical Damage, using twice the S damage inflicted as the CV. If there is Critical Damage, it is resolved using the Bow die score column.

Ships with Poor Underwater Protection (PUP) re-roll a “failed” test for Underwater Critical Damage. This means that a ship with PUP re-rolls a failed test against the CV to see if it suffers Underwater Critical Damage.

Merchant vessels and Armed Merchant Cruisers (AMCs) roll an additional test against the CV to see if they suffer more critical damage (i.e. they make two rolls), and re-roll either of these tests if they fail, because all merchant types have Poor Underwater Protection.

**7.6 – Grounding**

In some battles in coastal areas there may be areas of shallows on the table. This might be a condition of a scenario, or the players may just wish to make life more “exciting”. Before the game starts the only definition that is required is what type of sea bed is present. All ships are at risk, though smaller ones less so than large ones, and the sea bed also plays a role. The possible types of sea bed are shown in the table below. The risk area can be defined as specific areas of the table, or areas surrounding terrain features. The Danger Area round a feature is normally 10cm. This is reduced to 5cm in areas of steeply shelving coastline, fjords, or round rocks.

Before the game starts, if there are any harbours the extent of the dredged channels must be defined. There is no risk of grounding in these areas, however, it is possible to accidentally collide with harbour installations if the ship is out of control for some reason. If a ship does collide with a harbour installation, resolve this as if they ship had collided with a wreck.

When either front corner of a ship’s base first enters a Danger Area, or if the bow of the vessel starts its movement in such an area, and the ship is not already aground, it must test.

**Grounding Test**

This is a Crew Test, modified as shown below, requiring a score of 6 plus the ship size to succeed, in which case the ship is safe.

<b>Grounding test modifiers (d10)</b>	
<b>If the ship is moving slowly, re-roll a failed test unless it is in an area of Bad Weather, in which case a re-roll is not permitted.</b>	
<b>If the ship is moving normally in an area of Bad Weather, re-roll if successful</b>	
Crew Quality	+ 2 to - 2
Testing ship has damages steering (SV = 0)	- 1
# Fires on testing ship:	
1 - 2	- 1
3 - 6	- 2
7 - 12	- 3
13 - 20	- 4
21 or over	- 5

If the ship failed the test it is aground, immediately treated as being stationary, and marked as such. If the ship was NOT moving slowly, it suffers F damage equal to the score of 1d6, modified by the ship size modifier, and the sea bed modifier shown in the table.

<b>Grounding damage modifiers</b>	
Ship Size	+ 3 o - 4
Sand	- 2
Shingle	- 1
Coral	+ 1
Rock	+ 2

If the ship suffers any damage, it must next test for Underwater Critical Damage, using twice the F damage inflicted as the CV. If there is Critical Damage, it is resolved using the Bow die score column.

Ships with Poor Underwater Protection (PUP) re-roll a “failed” test for Underwater Critical Damage. This means that a ship with PUP re-rolls a failed test against the CV to see if it suffers Underwater Critical Damage.

Merchant vessels and Armed Merchant Cruisers (AMCs) roll an additional test against the CV to see if they suffer more critical damage (i.e. they make two rolls), and re-roll either of these tests if they fail, because all merchant types have Poor Underwater Protection.

**Effect of being Aground**

Such ships are treated as being stationary. The ship cannot be hit by torpedoes. The only weapons permitted to fire are Close Range Factors (CRF) or Medium Range Factors (MRF).

**Re-floating Grounded vessels**

In a subsequent turn, the player may attempt to re-float the vessel. This is the same Crew Test as that for grounding. If successful, the ship may move, but only at a speed between 1 and its MVR, as long as it is in the Danger Area, and you must test again for grounding.

**7.7 – Damage Control**

These rules allow for many aspects of the ships to be repaired in action. You cannot, however, repair any weapon systems that get knocked out in the game. These require the attentions of a dockyard. The systems that **cannot** be repaired during the game are indicated on the Critical Damage Tables by having the details shaded on the table.

Damage Control is carried out if a ship has moved *Slowly* in the current turn, and is tested after movement is completed. Ships that carry out Damage Control can shoot as normal.

A ship can carry out as many damage control rolls as it has teams still available. Tasks, including fire fighting, are allocated before rolling any dice and several teams can be allocated to the same task if it is particularly vital. Damage Control Rolls are based on the Crew Test, with additional modifiers as shown. Roll a d10 applying the modifiers, and a 6 or more indicates success.

<b>Damage Control test modifiers (d10)</b>	
<b>If the ship is in an area of Bad Weather, re-roll if successful</b>	
Crew Quality	+ 2 to - 2
Ship is Stopped	+ 1
# Fires on testing ship:	
1 - 2	- 1
3 - 6	- 2
7 - 12	- 3
13 - 20	- 4
21 or over	- 5

If the roll is successful damage is repaired, such as a point of Structure or Flotation, a Fire may be extinguished, or 1 point of damage to the Steering value (SV) is removed. No aspect of the ship can be restored to a value in excess of its original value.

*Kaiser has taken 7 Flotation Damage and is on fire with 2 fires. She decides to attempt repairs. She has 3 teams available, and each carries out a Crew Test, declaring they will attempt to put out fires. We assume a Crew Quality of + 0, but they have a - 1 penalty for having 2 fires. The results are 4, 1 and 8, which means that only one team is successful, extinguishing 1 fire.*

### **Friendly Assistance**

Friendly ships within 5cm can render assistance by allocating HALF of their Damage Control Teams to the damaged ship (rounded up). Both vessels must be stationary. The Damage Control Roll is tested using the Crew Quality of the assisting vessel and the other modifiers are based on the ship to be repaired.

### **7.8 – Deploying Reserves**

Reserves are brought onto the table as an activation in the Movement Phase. Deployment restrictions are shown in the rules for reserves (5.6).

**Ships deployed this turn may only carry out actions in the Action Phase permitted to ships that are “Out of Command.”**

### **7.9 – Ships leaving the table**

If any part of a ship’s base crosses the table edge during its movement, it is removed from the table immediately. The ship may attempt to return to the table in a subsequent turn, however it is currently regarded as having withdrawn from the action (perhaps only temporarily, who knows?). Note that by this means we are actively discouraging manoeuvring close to the table edge. Vessels that depart from the action will have an effect on squadron and ultimately force morale. Such a vessel is counted as lost (albeit temporarily) from the squadron and will jeopardise morale.

Ships that are removed from the action in this way are placed with any off table reserves. Individual vessels remain as individual ships (and will be “Out of Command” until they rejoin their squadron).

You may if you wish sail an entire Squadron off table during movement, in which case they will be “In Command”.

Damage repair cannot be carried out while vessels are off table.

### **Ships returning to the table**

Ships returning to the table do not have to enter over the edge across which they left. In order to return to the table, an individual vessel must take a Command Test in the Ship Movement Phase of a subsequent Game Turn, when its squadron is activated.

If an entire squadron has left the table it is treated as part of the reserves and is rolled for in the Ship Movement Phase of a subsequent Game Turn.

In either case, entry of the ship or squadron is governed by the rules for bringing on reinforcements (5.6 – Reserve Forces).

**In the turn that they reappear on the table, ships may only carry out those actions in the Action Phase that are permitted to ships that are “Out of Command.”**

### **7.10 – Aircraft Movement**

After all the ships have finished moving, aircraft squadrons are activated alternately. Aircraft have a speed based on their airspeed, which is scaled down to take account of manoeuvre, climbing and diving. Unlike ships, aircraft do not have to move at all (which is the equivalent of circling).

Aircraft have an MVR of 0, which means that they can move in any direction and end up with any facing after movement.

### **7.11 – Interaction between friendly aircraft squadrons**

After movement, stands from different friendly squadrons may not be placed so that they are in contact. You may only place friendly aircraft that are part of the same squadron in contact, therefore into a clump. It is important within the rules structure that you can distinguish separate squadrons.

### **7.12 – Interaction between opposing aircraft**

One or more stands may be placed in contact with enemy stands. Stands in contact must be aligned in “checkerboard” fashion. Stands may not be stacked. Corner-to-corner contact does not permit combat.

In order to be moved into contact with an enemy stand, the moving stand must have been able to see that stand before it moved, taking into account Tactical Visibility and areas of Bad Weather.

### **7.13 – Intercept Attacks**

**Only Fighter stands can make intercept attacks, and they must have an Intercept ACF (ACF I) of 0 or more.**

**A Fighter-Bomber cannot make an Intercept attack, unless it has dropped its payload.**

If a “defending” fighter stand is in contact with any “attacking” stand, and this “attacking” stand wishes to move away, then the “defending” fighter can immediately make an Intercept Attack against the moving stand UNLESS the “defending” stand is itself in contact with an “attacking” fighter (which is not the stand trying to move). Any other “defending” stands in contact with the “attacking” fighter cannot prevent the attack.

The Intercept Attack can be made even if the “defending” fighter stand is “Out of Command”.

If several “defending” fighters are in contact with one “attacking” stand that moves, each “defending” fighter (not itself in contact with an “attacking” fighter) can make an Intercept Attack. Each attack is resolved, sequentially, using the Air to Air Combat rules.

It is also possible for a fighter to negate Intercept Attacks in one location, move elsewhere, and then negate other Intercept Attacks, in the same Movement Phase, depending on the sequence of activation of the squadrons. The negation of Intercept Attacks applies equally if the potential victim of the attack is a fighter stand.

*Assume that the “attacker” has a Bomber and a Fighter. If both are in contact with a “defending” fighter, the “attacking” bomber can move away unopposed, as long as the opposing fighters are in contact.*

Intercept Attacks also apply if a fighter stand is in contact with an enemy bomber stand attacking a ship. The attack is carried out before the bomber starts resolving its attack. All the rules above about how to negate Intercept Attacks still apply.

They are also applied if an aircraft stand that has completed its attack is being moved off the table in a Movement Phase.

### **7.14 – Interaction between aircraft and surface targets**

Aircraft must be moved into attack range for the weapon in use. If a stand from a squadron is placed in contact with a potential target ship, that squadron must be capable of attacking the target with one of its stands, which must be in contact with the target either directly or indirectly. Note that only 1 squadron of up to 27 aircraft may be allocated to attack any single vessel in a turn. It is permitted to place more than one squadron in contact with a target, which could also split its AA fire. Only one of these squadrons may attack the target in a game turn. The choice of which squadron attacks is up to the owning player.

***Air base targets***

If attacking an air base, you may be able to attack it with more than one squadron. The rule of thumb is that you can attack an air base with 1 squadron per turn for every 10 H or part thereof that is available to the air base (in its undamaged state).

***Close range attacks***

For bombers, torpedo aircraft, and aircraft making a gun or rocket attack at least one of the aircraft stands must be in full edge contact with the base of target. In order for an attack to be launched in these cases, the target ship must have been within the Tactical Visibility range measured from the aircraft stand making the attack, before it started to move. The attack cannot be made in the turn during which the squadron or stand entered the table.

The aircraft squadron stands are placed in contact with the target ship (this is known as direct contact), or in contact with a stand in the same squadron that is in contact with the ship (this is known as indirect contact). It is possible that the squadron had intended to split into several different “clumps” of stands when attacking, so as to split the AA defences. It may be that it becomes impossible to split the squadron due to space constraints, in which case so be it.

***Gentlemen’s agreements***

When a situation arises in which it is impossible to fit the aircraft stands into a gap because the amount of displacement becomes unwieldy, it is our view that it is just as acceptable for players to agree that a number of stands or clumps be placed somewhere else on the table. The owning player must have declared which stands or clumps are attacking which targets. Their location beside their targets should be marked in some suitable way, so that Anti-aircraft fire can be resolved in the usual fashion.

As long as the intent is clear, you should not allow the models or how you may have based them to get in the way of play.

***Incidental displacement of ships***

If necessary ships may be displaced to allow the stands to be put in place. This displacement is carried out by the ship’s owner, and must be to the side or backwards. This might mean that other ships are displaced as well, and this must be in the same direction. Ships so displaced are moved so that there is at least 1cm between the bases and/or stands. You may not force a ship into incidental contact with an aircraft stand.

If the displaced ship had already been contacted by attacking aircraft, these are moved with the ship, such that the stands in contact maintain the contact.

The attacking player is not allowed to cause displacement of ships if he could place his stands in contact with another part of the target ship’s base.

***Incidental displacement of aircraft***

It is possible that the player defending a ship has aircraft surrounding it. This cannot be used to prevent an attack by the opponent. Defending stands must be displaced if there is no other space to place attackers.

Stands from the attacking squadron are placed as the attacker wishes, singly or in clumps in contact with the target, and the defending player then places his displaced stand or stands in contact with the attacking squadron.

***Incidental contact with other ships***

A “clump” of aircraft stands may end up in incidental contact with ships other than the declared target for the squadron. This may be due to space considerations on the table or the player’s choice to do so. They may choose to allocate some of their attacks on the incidental target, though at least one stand must attack the designated prime target. If they do allocate any attacks against other targets, these then cannot be attacked by any other squadrons this turn as this will infringe the rules limiting the number of

aircraft attacking a single target. These incidental targets are allowed to fire their CRF against any stand in contact.

***Displacement of aircraft stands caused by ship movement***

During the Movement Phase it is equally likely that a ship will need to move to a location where there is an aircraft stand. In such a case the aircraft stand (or clump of stands) must be moved away so that there is at least 1cm between the ship base and the aircraft. Groups of aircraft stands may not be re-arranged while this happens; there may be an ongoing dogfight for example. In addition, stands cannot be forced into contact, so it may be necessary to move other stands as well.

***Stand Off attacks***

Other weapons can be used at various distances of up to 4 Range Bands depending on the item in use. There is no requirement for any aircraft to be pointing at a specific target in order to make an attack (though this clearly looks better), the target must just be in range and visible to the attacking aircraft.

***7.15 – Aircraft leaving the table***

The true speed of aircraft would normally be much higher than the game speed we use. An aircraft formation may be removed from the table at any time during its movement activation. Stands might be subject to an Intercept Attack if they are in contact with the enemy (see the rules for Intercept Attacks earlier).

The stands may be retiring to make another approach on the target from a different direction, or they may have completed their attack and are returning to base. They may even have been forced off the table by some Japanese special weapons.

Stands that depart from the action will have an effect on squadron and ultimately force morale. Such a stand is counted as lost (albeit temporarily) from the squadron and will jeopardise morale.

Stands that are removed from the action and intend to return are placed with any off table reserves. Individual Stands remain as individual elements (and will be “Out of Command” until they rejoin their squadron).

You may if you wish fly an entire Squadron off table during movement, in which case they will be “In Command”.

***Returning to the table***

Aircraft returning to the table do not have to enter over the edge across which they left. In order to return to the table, an individual stand must take a Command Test in the Air Movement Phase of a subsequent Game Turn, when its squadron is activated.

If an entire squadron has left the table it is treated as part of the reserves and is rolled for in the Air Movement Phase of a subsequent Game Turn.

In either case, entry of the stand or squadron is governed by the rules for bringing on reinforcements (5.6 – Reserve Forces).

**Aircraft cannot be moved into contact or otherwise initiate an attack in the turn on which they return to the table.**

## 9.4 – Ships shooting with Guns

The gunnery system requires an attack to be “On Target”. If this is successful then you will damage the target, though the extent of damage will vary depending on the tactical situation and other factors. In addition to Structural or Flotation damage, hits may also cause Critical Damage, which will reduce the target’s effectiveness in combat. In some cases, you will have to penetrate the armour on part of the target for the Critical Hit to be effective.

### Note regarding Splash Markers

Splash Markers are an essential part of the combat system. They are used to indicate a number of factors that can have an effect on combat resolution. Executing a turn during movement will cause fire control calculations to be wrong, and violent changes of course to avoid collisions will have an additional effect. Splash Markers also denote the fact that a ship has been under gunfire this turn. When resolving an attack, the markers on both the firing and target ships are counted. On the firing ship incoming shellfire will have a distracting effect on the crew. On the target the shell splashes not only impede vision, but are confusing because you need to know whether you are observing your shots or someone else’s. For this reason it is unwise to spread too much gunfire around at targets, just for the sake of it.

### Spotting Distance

Every vessel has a Spotting Distance (SD), which is based on the size of the ship. A ship cannot engage a target with its guns at ranges in excess of this, and the gunnery details on the Ship Record Sheets only show the values up to this distance.

### Fire Control

Ships have an inherent Fire Control Value, which is better on large ships. This ability represents the staff available to the Gunnery Officer, and may be reduced due to Critical Damage. When the Fire Control value has been reduced to 0, gunnery shifts to Local Control, where the “to hit” chances are worse. Radar cannot be used while Fire Control (FC) = 0.

Fire Control is not used when firing Dual Purpose AA guns but AA radar cannot be used while FC = 0.

### Gunnery Modifier

Every vessel shows a Gunnery Modifier. This is applied to shooting and is a reflection of the technology available when the ship was built or in some cases re-built or re-fitted. The gunnery modifier is always applied when shooting, even if the ship has to shoot under local control.

### Number of targets; Splitting fire

When firing one ship at another, all guns in a battery that can engage a target are fired in a single salvo and cannot be split into several attacks on a single or multiple targets. You can fire at more than one target ship if you have more than one gun battery on a ship.

### Dual Purpose (AA) guns

These guns can be fired either at ships or aircraft (using the Long Range Factor – LRF). Such weapons are shaded on the Ship Data Sheets and also marked “AA” or “AA+”. If used against a ship target they cannot be used against aircraft in the same turn, thus negating the ship’s LRF, and vice versa.

### Gunnery Interference

The volume of shellfire on any given target will interfere with gunnery. This is indicated by placing a splash marker on a target each time you have obtained a successful “On Target” result on it.

## Resolving hits with Guns

- Each ship in the squadron currently carrying out its Action Phase attacks its target(s), which were declared when the Squadron activated, before moving to the next ship in the squadron.

A ship could be wrecked by the hits of one battery. Subsequent hits from other gun batteries on the current ship could destroy the wreck (as could hits from other ships that had declared the original ship as their target).

- A ship must be “In Command” if it wishes to fire guns.
- Select a ship and declare the target(s) of its gun batteries (and any torpedo, CRF/MRF or AA attacks), before rolling any dice.
- **If the action is taking place at night, take note of the order in which identification and acquisition of targets takes place. This is summarised in the box below.**
- Select the battery, total the number of guns that can be fired at the target, then roll to see if you are “On Target” with this salvo. If the Fire Control value is greater than 0, then use the “Directed” column, otherwise, or if it is an AMC firing, use the “Local” column.

If your ship has a “Mixed Gun Battery” you may not wish to fire all the turrets/guns at the target, because you could suffer a penalty due to some guns having a worse performance. Refer to the Special Rules for details.

- At night, if appropriate, illuminate the firing ship if it is not equipped with flash-less propellant (see Night Actions rules).
- If you are ‘On Target’ apply the IP damage from the current salvo and place a splash marker on the target. If necessary carry out a Wreck Test on the target.

### Night Time Identification and Radar Acquisition of Targets

Before any ship can engage another at night it must identify it, or use radar to acquire it, **unless the target is illuminated**. In either case a Crew Test is required, with various modifiers, shown in the earlier rules about Night and Radar.

These actions are a function of the declaration of targets by a ship, and the results of the actions of one ship can have an effect on the actions of all the other ships involved during the rest of the turn.

- 1 At night, the first action is to declare the target(s) of each battery, bearing in mind that if you do not have radar you can only attempt to visually identify (and therefore shoot at) one target per turn. Torpedoes and CRF/MRF can only be used against a visually identified target.
- 2 Next carry out the visual identification roll against a declared target, using the appropriate modifiers if using a searchlight or star shell, and apply the results.
- 3 If any ships are now illuminated, no further identification or acquisition rolls are required against them this turn.
- 4 In addition to the visual identification roll, each gun battery that has radar support can attempt to acquire a target that was declared for it in step 1 above. You do not need to acquire a target that has been identified (with the visual identification roll), however if a target was the subject of an unsuccessful visual identification roll any battery supported by radar that declared that ship as a target can attempt to acquire it. (The availability of radar provides an additional chance of engaging a target for each battery that is so equipped.)

Bear in mind that a gun battery that has been used to fire star shells cannot be used to shoot at a target as well, but if it is equipped with radar you can use this to improve your chance to use star shells (see Night rules).

- Check for any critical hits using the CV of the attack. The number of tests is based on the number of guns that fired, and the number is shown in the “On target” Modifiers table. If successful roll for Critical Damage on the appropriate table and apply the results immediately.
- If there are further attacks by the ship on its target, roll to hit, with modifiers based on the new state of the target.
- If the designated targets of the ship are eliminated before all its batteries have attacked, they may not select new targets.

**“On Target” rolls**

To determine if a salvo is ‘On Target’ roll d20 and modify using the appropriate modifiers below. If the required score is achieved then the battery is ‘On Target’.

Range (Yards/Range bands/cm)	Directed	Local
25,000 yds 5 RB 125 cm	18+	24+
20,000 yds 4 RB 100 cm	15+	20+
15,000 yds 3 RB 75 cm	12+	16+
10,000 yds 2 RB 50 cm	9+	12+
5,000 yds 1 RB 25 cm	6+	8+

Crew Quality	+ 2 to - 2
# of guns shooting at target	
1 - 2 [1 roll for Critical Damage]	- 1
3 - 6 [2 rolls for Critical Damage]	+ 0
7 - 12 [3 rolls for Critical Damage]	+ 1
13 - 20 [4 rolls for Critical Damage]	+ 2
21 and over [5 rolls for Critical Damage]	+ 3
Target size modifier	+ 3 to - 4
Battery shooting with radar support (not Local), the conditions permit this and shooting ship can see target	+ 1
Attacking across intervening ship base (not model)	- 1 per base
Per Splash Marker on shooting vessel and on target vessel	- 1
Gunnery Modifier	+ ? to - ?
Target damaged steering (SV = 0)	+ 1
Target moving at <i>Slow</i> speed	+ 1
Target <i>Stopped</i> or is a Land Target	Re-roll misses
Shore Battery shooting	Re-roll misses

**Hits on Merchants and AMCs**

Merchant vessels and Armed Merchant Cruisers (AMCs) roll an additional test against the CV to see if they suffer more critical damage, over and above the normal number of rolls.

**Raking Fire**

If a ship is hit by is hit by Raking Fire, it must roll an additional test against the CV to see if they suffer more critical damage, over and above the normal number of rolls. A merchant vessel or AMC must therefore check for TWO additional effects from a raking hit.

If Critical Damage is caused the Armour Protection that the shell must match or overcome is changed because of the raking effect and is deemed to strike the horizontal protection. The armour value that has to be overcome is shown in the table in parenthesis (thus).

*HMS Bristol is shooting at SMS Scharnhorst with two x 6” guns (IP3 CV3, PEN 6/4/3) and five x 4” guns (IP1, CV1, PEN 4/2) at 2 RB range. The base to hit requirement at this range is 9 or better.*

*These are fired as two batteries. Scharnhorst has a target size of +0. Crew quality is average (+0). Gunnery Modifier is +0. Bristol rolls 12 on d20, two guns are shooting giving a - 1 modifier, so the final score is 11 so she hits with the 6”. Scharnhorst takes 3 points of damage to her S, and a splash marker is placed on the target. A d20 is rolled for Critical Damage (2 guns firing) requiring 3 or less to be effective. The score is 2, meaning that this is successful and the effect is then determined with a further d20 on the Structural Critical Damage table. The result is 6, which is a hit on the Conning Tower. To be effective the shell has to penetrate AC7 on Scharnhorst, which the PEN of 4 fails to do. If the shot had been a raking shot, the penetration would have been successful, as the armour protection is only ½CT, 3½ rounded to 4, matching the penetration at that range. The Crew Quality on the Scharnhorst would have been reduced by 1, using all of the 3CV in the process. If this was a squadron flagship a further d20 would be rolled and a result of 3 or less would mean that the CO has been killed and the squadron’s Command Value would also be reduced by 1.*

*She rolls for the 4” guns, 5 guns shooting give a + 0 modifier, but there is now a splash marker giving an additional - 1 modifier, so the final score required is 17. 18 is rolled, causing another hit. Scharnhorst is marked with second splash marker and takes another point of damage from the IP of 1. 2d20 are rolled to see if there is any Critical Damage (5 guns firing), the scores are 4 and 19, so there is not.*

*The Giussano is shooting at HMS Cossack with eight x 6” guns (IP2, CV3, PEN 6/4/3/1) and four x 3.9” guns (IP1, CV1, PEN 4/2/1) at 2 RB range. Again the base to hit requirement is 9 or better. The guns are fired as two batteries.*

*Cossack has a target size of - 2, the Crew Quality on Giussano is - 1 and The gunnery modifier is + 1. Giussano rolls for the 6” guns, eight guns are shooting giving a + 1 modifier so the final score required is 10. A roll of 20 on d20 means she hits with the 6” causing 2 points of damage to Cossack’s S. A splash marker is placed on Cossack. A further hit will cause Cossack to have to take a Morale Test as the S would be reduced to ½ or less (1). 3d20 are rolled to see if there is a Critical Damage Effect (8 guns firing), requiring 3 or less to be effective. 2, 7 and 18 are rolled so Cossack suffers one Critical Damage Effect. D20 comes up 17, which is a hit on the weapons. Using the weapon hit distribution for the Cossack, a d10 is rolled with a score of 2, a hit on the Main guns. One of the guns mounts is destroyed and a Magazine Test is rolled on d10, modified using Crew Quality of + 0, scoring 3, which fails. The second stage of the Magazine test is passed (a roll of 10). This means that Cossack now suffers a further effect using 2 x the CV of the Cossack’s 4.7” guns = 4. The d20 for effect comes up 8 - damage to the engine room causing the loss of d6 + CV knots and the smoke generation equipment on Cossack. The CV is 4 and the d6 comes up 5, so 9 knots are lost.*

*Giussano now rolls for the 3.9” guns, 4 guns shooting give a +0 modifier, and there is a - 1 modifier for the splash marker so with the other modifiers the final score required is 12. A roll of 18 means Cossack is hit again, doing 1 damage to S, and she is marked with another splash marker. The value of S is now 1 so a Morale test is needed in the End Phase. 2d20 are rolled to see if there is a Critical Damage Effect (4 guns shooting), requiring a score of 1 to be effective. The scores are 10 and 19 so no Critical Damage is caused.*

## 9.5 – Ships attacking with Torpedoes

We have deliberately made torpedoes more dangerous than they actually were in real life, to make players aware that the threat of torpedoes was actually more important in making tactical decisions. The IP damage and chance of causing critical damage from a torpedo hit does reflect their effectiveness correctly, and probably will not sink a large ship (though an unfortunate Critical Damage effect might – and has happened to one of the authors).

Within the scope of these rules, torpedoes are considered to be effective weapons when fired from trainable mounts. Those fired from fixed mounts above the waterline are allowed but are less effective. Tubes fitted below the waterline are not included.

As torpedoes develop, variable speed settings are introduced, allowing longer ranges at a cost to the speed of the torpedo. The weapons that appear on the Ship Data Sheets show “To Hit” modifiers which reflect the effectiveness of the weapon, when weighing range against speed.

We appreciate that torpedoes may take longer to reach a target than one game turn. However our view has always been that keeping records and physically moving torpedo markers adds nothing to the game. Torpedo attacks are therefore resolved in the same turn in which the tubes are fired.

Torpedoes are not fired as individual tubes, but using a torpedo mount. When the mount fires it uses all the torpedoes in it.

### **Torpedo Ranges and effectiveness**

Torpedo ranges have been converted into Range Bands. The speed/range combination of weapons have been analysed to provide the “to hit” modifiers for each range band. These modifiers represent the possible speed settings for the torpedo within the game mechanism. The speed setting that is chosen by the player is applied to all attacks, even against targets located at shorter ranges where a better “to hit” modifier might apply. The speed setting also determines the range over which the torpedo will travel during its attack. If the “to hit” modifier appears in parenthesis, i.e. ‘(+1)’, this means that torpedoes that have missed could attack targets farther away than the Spotting Distance of the firing ship. You might be forced to use a speed setting that limits the range of the torpedoes if there are friends behind the target.

*If a torpedo has settings of +1, +1, +1 then it has the potential to attack any targets at up to 3 Range Bands, and its range cannot be limited to a lower number.*

*If a torpedo has settings of +2, +0, -1, the player can limit its range to 1, 2 or 3 RB by selecting the appropriate modifier. The modifier is used for all the attacks, even if a shorter range has a better modifier.*

*If a torpedo has “to hit” modifiers of +1, +1, +0, (+0) it has two settings. Choosing +1 means that any potential target out to 2 Range Bands could be attacked using a +1 modifier. Choosing +0 means that the attack could go out to 4 Range Bands, even though the firing ship can only see 3 RB. In this case the declared target at which the salvo is aimed must be within 3 RB, and any targets that are attacked will use a +0 modifier, including those in the first 2 range bands.*

In addition the game values take account of the chance of fuse failure meaning that the torpedo will be a dud. This incorporates the significant rate of failure on German and American torpedoes in periods of the Second World War. You will notice in the cases of the USA that the “to hit” modifier improves later in the war. In other cases as better explosives became available, the damage (IP) and chance of causing Critical Damage (CV) increase.

### **Arcs of Fire**

In the period when torpedoes were first introduced, the location of the mounts indicated that some unusual arcs of fire were available. For the purpose of the rules, we have limited the arcs of fire to the sides of the vessel and in some cases to the front.

In the case of small highly manoeuvrable craft such as MTBs and S-Boats which fire ahead, but have an MVR of 1, stands containing such vessels are allowed to swivel at the end of their movement to point at a target or target area. They may not be moved in the Action Phase. While they may shoot all round with their guns and are highly manoeuvrable, they must still place the attack template to their front.

### **Area of Fire**

Torpedo attacks are regulated by means of an area of effect Template. This is 15 cm wide and 1 RB (25 cm) deep for most torpedoes. In the case of torpedoes which have a limited range of 10 cm the template is still 15 cm wide. The template is marked at the centre point of the firing edge.

The template is placed so that the centre point of the firing edge is in contact with the front corner of the attacking vessel’s base nearest to the target, and the rest of the template is in edge contact with the base. The direction of the template is usually perpendicular to the ship’s course. If firing to the front, the template can be placed on either corner, at the attacking player’s discretion.

There is an arming distance of 2.5 cm below which the torpedo will not be effective, though you must still test for hits which could lower the number of attacking torpedoes.

The actual danger zone is dependent on the range (in RB) covered by the chosen speed setting. This means that multiple templates may be used in resolving the attack. As long as there are unexpended torpedoes in an attack, any ships in the area of the template(s) will be attacked.

### **Declaring Torpedo Fire**

Every vessel has a Spotting Distance (SD), which is based on the size of the ship. In order to fire torpedoes, the firing ship must be able to see at least one (enemy) ship in the area of the template within its SD (or the Tactical Visibility distance if lower), and the torpedo must be effective against that target (Type “X” targets cannot be attacked and therefore cannot be used as an “aiming point”). Radar does not apply.

Either front corner of the target’s base must be within the area of the template.

The firing player can choose any available speed setting for the torpedoes as long as he can see a target which could be hit using that speed setting. There may be no choice of setting, or the chosen setting may allow the torpedo to go further than he can “see”. In either case the attack might endanger ships further away.

If the ship carries different torpedo types with different game effects, only one type can be fired by a ship in a turn.

### **Risk to friends**

When determining targets in the danger zone friendly vessels are equally at risk. It is recommended to keep your own ships well away from torpedo targets.

### **Weapon interference**

Unlike gunfire, splash markers on the target vessel have no effect on torpedo resolution. However splash markers on the attacking vessel still have an effect because it will suffer penalties for manoeuvre and may be itself under attack.

### Effect of Wrecks

Any wreck that is in the area of effect will be attacked as a size +0 stationary target. Each hit causes a torpedo to be removed, and a CV test is carried out. If this is successful the wreck is removed (after any potential torpedo hits have been resolved against it).

### Effect of Terrain

Targets behind such items can also be attacked because the underlying system assumes that the attack was set up in previous turns, particularly those at long range, where a line of sight might have been available.

There may be areas of land, reefs, sandbars, harbours in the area of the template. These will be attacked as well, and each hit removes a torpedo from the salvo. They are treated as stopped targets of size +0. Players may if they wish ignore the 5cm or 10cm danger area round such features that applies when checking for ships running aground. They are, however, urged to use their common sense here when resolving these incidental hits. There may be cases where the attack would have been physically impossible. Ships behind an island could be attacked from either side of the island, but those behind a headland might not be, based on the course of the firing ship. Bear in mind that the firing ship MUST have been able to see at least one clear target at the time the salvo was fired.

If attacking ships in a harbour, there are jetties, booms, nets or moles which partially protect the ships therein. One attack is made against a harbour, regardless of the number of structures that may be in the way. The remaining torpedoes attack ships in the harbour. It might be simpler to have a virtual harbour with a list of ships, and then attack these randomly. The attacks are still resolved using all the remaining torpedoes against one ship before moving to the next.

### Resolving the number of hits with Torpedoes

- Each ship in the squadron currently carrying out its Action Phase attacks its target(s), which were declared when the Squadron activated, before moving to the next ship in the squadron.
- A ship must be “In Command” if it wishes to fire torpedoes.
- Select a ship and declare any torpedo (or gun, CRF/MRF or AA) attacks, before rolling any dice.
- At night the target must have been identified visually. It cannot be acquired using radar when using torpedoes.
- Declare how many mounts are being fired. All torpedoes are fired from mounts used and combined in one salvo.
- Declare the speed setting chosen. This is used to modify all the attack rolls even if a target is at a shorter range with a better “to hit” modifier.
- Roll 1d20 per torpedo that was fired in the salvo, resolving the attack against the nearest target in the area of effect. The range band to be used to establish the base “to hit” score is based on the location of the bow corner of the target nearest to the firing end of the template. It is not measured to the firing ship.
- The attack is resolved by rolling 1d20 per torpedo (remaining) in the salvo, applying the appropriate modifiers. These either hit or miss. Mark the ship that was hit with the number of hits in some fashion. If the hit was at a range of 2.5 cm or less the torpedoes are ineffective and deducted from the salvo.  
Place a Splash Marker for each torpedo hit.  
Mark the Ship Data Sheet that the mount has been fired.
- The torpedoes that missed are rolled against the next target in the area of the template. This is the next one along the axis of the template (using the bow corner nearest to the firing end of the template as point of reference – either bow corner counts). Continue until you run out of torpedoes, targets, or range.

<b>Torpedo ‘To Hit’ Table (d20)</b>			
<b>Range (Yards/Range bands/cm)</b>			<b>‘On Target’</b>
25,000 yds	5 RB	125 cm	21+
20,000 yds	4 RB	100 cm	20+
15,000 yds	3 RB	75 cm	19+
10,000 yds	2 RB	50 cm	17+
5,000 yds	1 RB	25 cm	14+
<b>Modifiers (d20)</b>			
Torpedo attack modifier based on selected speed setting			+ 2 to – 2
Per Splash Marker on shooting vessel ONLY			– 1
Crew Quality			+ 2 to – 2
Target size modifier			+ 3 to – 3
Attack into target’s bow arc (unless target slow or stopped)			– 1
Attack into target’s stern arc (unless target slow or stopped)			– 3
Target has damaged steering (SV = 0)			+ 1
Target moving at <i>Slow</i> speed			+ 1
Target <i>Stopped</i> or is a Land Target			Re-roll misses

- For each torpedo that hits apply the IP as damage to the Flotation (F) on the ship.  
If necessary carry out a wreck test immediately. Bear in mind that a ship could be wrecked by one torpedo hit in a salvo, then that wreck could be destroyed by the next torpedo hit in the same salvo. If this happens any additional torpedoes that had scored a hit against the current target are considered as spent and are not treated as having “missed”.
- For each torpedo that hits test for a critical hit using the CV of the attack. If successful roll for Critical Damage on the Underwater Critical Damage table.  
If the target vessel suffers from Poor Underwater Protection, it must re-roll a failed test against the CV to see if it suffers Underwater Critical Damage.  
Merchant vessels and AMCs roll TWO tests for each torpedo hit, and re-roll any “failed” tests as all merchant types have Poor Underwater Protection.  
If the attack was made into the bow or stern arc of the target (attracting the appropriate modifiers) then the bow or stern aspect die score columns are used to determine the result, otherwise the mid-ships column is used. Slow and stopped targets always use the mid-ships column.

### Reloading Torpedo Tubes

Reloading torpedo tubes is a long and arduous process, especially if the ship is under fire, and would take quite a few game turns. With the specific exception of Japanese ships fitted with special reload magazines reloading tubes is not possible during the game.

*Note for the erratum extract pages, the current example in the rules is still valid, though there is a deletion of the 2nd sentence in paragraph 2, as referred to in the Erratum text.*

- The factors from a battery are applied to one target stand or clump of stands.
- If fired at a single isolated stand all the attack dice are applied to that target. See note above about friendly fire.
- If fired at a clump of stands the dice must be distributed evenly across the stands (1 die must applied to each stand before a 2<sup>nd</sup>). See note above about friendly fire.
- Roll the attacking dice against the stands concerned. All the attack dice in the current attack are rolled against the target stand together, after which the effects are established. If the d20 score, modified using the table below, equals or exceeds the aircraft's Defence Value (DV) a hit has been scored on that stand. A Flak marker is placed on the target stand for each hit scored.
- The defending player rolls a saving throw using a d10 against each hit. A modified score of 6 or more is required to save. The modifiers are shown in the table above and have been pre-calculated and show the aircraft Hit Points because AA guns always do 1 point of damage. For each failed throw an aircraft is destroyed. The owner marks these losses immediately on the Squadron record.
- If there are further attacks on a target, roll to hit, with modifiers based on the new state of the target, such as additional Flak markers.

### Combat effects

If an aircraft stand loses all its aircraft to combat effects it is removed immediately.

If a stand loses enough aircraft to cause it to take a morale test (at the end of the turn), which it then fails, it is removed immediately and is eliminated.

If an aircraft squadron is reduced to half strength (in stands) and fails its morale test (at the end of the turn) it is eliminated (and any of its stands previously placed in the RTB box are removed).

## 9.8 – Ships making Smoke

Most ships leave a trail of funnel smoke due to the fuel they are burning when moving at high speed in combat. This is represented in the game by the bases of the models, which can interfere with gunnery or block line of sight (see the rules on this earlier). The ships themselves are really about 1 cm long in the ground scale being used.

It may be desirable during the game for friendly ships to lay a smoke screen in order to protect other units. Smoke screens are laid by ships which list this as one of their traits on the Ship Data Sheets. The placing of smoke screens has deliberately been kept simple. Bear in mind, however, that the smoke has been laid throughout the movement of the ship, so it will still leave a trail along its course, which is how these rules operate.

If a smoke screen is required, the vessels would move in an appropriate fashion to generate it. The manoeuvres required to place the smoke effectively have been built into the smoke rules, so that complications with rules for wind direction are avoided.

**The ability to make smoke may be lost due to Critical Damage.**

### Other types of ships making Smoke:

The use of smoke screens is limited normally to destroyer types. However, the facility can be offered to other ships, if the players agree beforehand which ships they will permit to attempt to make smoke. Some larger vessels carried smoke generating equipment which did not rely on using the ship's funnel, such supplies would be limited though. The Crew Test applies as shown, the optional modifiers shown in the table must be applied, and, in addition, if the test is failed the ship may not attempt to make a smoke screen again in this game.

### Placing of Smoke Screens

Smoke markers are placed in the Action Phase by ships that are capable of doing so. A ship does NOT have to be "In Command" to lay smoke. This requires a successful Crew Test made rolling a d10 and modifying it as below. A score of 6+ is required to succeed.

<b>Smoke test modifiers (d10)</b>	
<b>If the ship is in an area of Bad Weather, re-roll if successful</b>	
Crew Quality	+ 2 to – 2
Action taking place before 1905	– 1
# Fires on testing ship:	
1 – 2	– 1
3 – 6	– 2
7 – 12	– 3
13 – 20	– 4
21 or over	– 5
<b>Optional Modifiers for ship types</b>	
Smaller ships (non-destroyer types)	– 1
Cruiser types	– 2
Larger vessels	– 3
<b>Geographic modifiers</b>	
Arctic (December to February)	– 3
Arctic (March to May, September to November)	– 2
Arctic (June to August)	– 1
North Sea / North Atlantic (December to February) South Atlantic (June to August)	– 2
North Sea / North and South Atlantic (March to May, September to November)	– 1
Indian Ocean / South China Sea (January to December) South Pacific (June to August)	+ 1
South Pacific (March to May, September to November)	+ 2
South Pacific (December to February)	+ 3
Aleutians, Mediterranean, North Sea / North Atlantic (June to August), South Atlantic (December to February), Sea of Japan, North Pacific	+ 0

*A destroyer with crew quality – 1 that has 2 fires on board is trying to make smoke in the Arctic in June. The modifiers are – 1 (crew), – 1 (for 2 fires), – 1 (location). The total modifiers are – 3 so the ship requires a 9+ to succeed in making smoke.*

A smoke marker 7.5 cm long is placed by the owning player anywhere on the rear or either of the rear corners of the base of the ship. It can be placed in any orientation, however it cannot be placed so that it is inside an area of Bad Weather as the wind, rain or squalls would immediately dissipate it.

### Effects of Smoke

Smoke blocks lines of sight for gunnery and for targeting torpedoes. The area of smoke is regarded as being a combination of the ship's base and the line of the smoke screen. Radar negates the effect of smoke for the purposes of gunnery though the actual model ship still blocks line of sight, preventing shooting.

### Removing smoke

Smoke does not dissipate automatically when the ship moves. It can be maintained and when the ship has moved to its new location, the smoke is placed where the player wishes, in accordance with the rules above.

The player can choose to stop making smoke when a ship is activated in its Movement Phase, before it is moved.

Smoke will dissipate automatically if the ship moves into an area of Bad Weather or if it has lost its smoke generating capabilities.

If a ship that had laid smoke is removed from play for any reason, its smoke is removed at the end of the current turn. This also applies if a ship is wrecked.

### 9.9 – Aircraft attacking ships with bombs, torpedoes or rockets

In order for an aircraft squadron to attack a ship with bombs, torpedoes, guns or rockets, the attacking stands must be placed in contact with the target vessel. The aircraft moving into contact must have been able to see the target before they moved (the target must have been in Tactical Visibility range) and the line of sight was free of areas of Bad Weather. The movement of attacking aircraft takes place in the Movement Phase, and there are specific rules about displacing ships, if necessary, outlined in that rule section.

Stands are placed in full edge contact with any part of the target’s base; partial contact is not valid. A stand may also be placed in edge contact with one or more stands from the same squadron, and can attack if it can trace a line to the target via these stands. These groups of stands are referred to in the rules as clumps.

Only 1 squadron can attack a single target vessel in one turn. More than one ship could be attacked by that squadron in the same turn, as long as all the ships are contacted by stands from the squadron.

It is permissible for an attacking player to put more than one squadron into an attack position, which may help to overwhelm the AA defences. Any squadron placed in contact with a ship must be capable of making an attack that can cause damage to the target concerned. As “everything happens when it happens” the aircraft player has to decide when his activation comes round which of his squadrons will attack a ship.

#### Permitted Targets

Aircraft can attack any ships other than those of Type “X” with bombs, torpedoes and rockets. Targets of Type “X” may be attacked by Rockets. (They can also be strafed or attacked with anti-shiping guns – see the following rule section.)

#### Level Bombing attacks

Level bombers attack at optimum heights for their roles, these being Low, Medium or High level. Higher levels offer immunity from some AA fire, but at a hit penalty.

#### Dive Bombing

Dive Bombing is a well known feature of naval warfare, with aircraft such as the Ju87 Stuka, the Aichi Val, and the Douglas Dauntless being typical of the type. Aircraft attack in a near vertical dive and pull out just above the target to ensure greatest accuracy.

#### Glide Bombing

This is an attack with a shallower dive of around 60 degrees, but still giving good accuracy. Heavier and larger planes tend to use this attack type, such as the Ju88 (which is often regarded as being a dive bomber in some of its variants) and the Curtiss Helldiver. Fighter bombers usually use a glide bombing attack.

#### Salvo Rockets

There are special effects if a ship is hit by a Salvo Rocket attack. These are noted under ‘Resolving Attacks’. In addition there are special rules when these are used to attack targets of Type “X”, which are also shown below.

#### Skip Bombing

This is a specialised attack type developed by the US Air Force in the Pacific, which bounced a bomb against the side of a target.

#### Multiple attacks

Some aircraft carry multiple attacks and these will usually be of different types. Multiple attacks from different attack types cannot

*Some aircraft may carry a torpedo and some rockets, in which case these attacks cannot be made in the same turn. An aircraft carrying two torpedoes can make one or two torpedo attacks against a target in the same turn.*

be carried out in the same turn. In some cases aircraft may carry more than one torpedo, in which case more than one attack is possible in the turn. The number of attacks being expended must be declared at the same time as the attack, before rolling any dice.

#### Attacking aircraft contacted (intercepted) by enemy fighters

If an attacking aircraft stand is in contact with an enemy fighter stand when it makes its attack, it may be attacked by the enemy fighter stand if the rules for Intercept Attacks permit this. This is resolved before the attack dice are calculated for the anti-ship attack.

**In order to carry out an Intercept Attack, an aircraft must have an Intercept ACF with a value of 0 or more.**

#### Resolving attacks

- The squadron being activated must first declare its intended target(s).
- The attacking aircraft stand or clump must be “In Command” in order to make an attack.
- The number of attacks that can be made by a stand is determined by how many aircraft are left. The table shows the number of d20’s that can be rolled by a stand.
- If a squadron has multiple attack types, all stands in the squadron that attack must carry out the same attack (within the limitations shown above).
- Each stand or clump in a squadron of aircraft attacks its target (s) before moving to the next.
- If an attacking stand is in contact with an enemy fighter then that fighter may be able to make an Intercept Attack. Resolve any such attacks first.  
Bear in mind that an Intercept Attack may sever a chain of attacking stands (in a clump). If the chain is severed, stands that cannot trace an unbroken line to the target cannot attack.
- Select an attacking stand or clump and ascertain how many attacks are available. A stand has a number of attacks based on its surviving aircraft. A clump of stands ascertains the number of attacks for each component stand that can trace an unbroken

<b>Air Attacks on Shipping Table # dice and modifiers (d20)</b>	
# aircraft in a stand attacking target	# dice
1 – 2	1
3 – 6	2
7 – 12	3
13 – 20	4
21 and over	5
<b>Modifiers (d20)</b>	
Crew Quality	+ 2 to – 2
Attack Type:	
Dive Bomber	+ 4
Skip Bomber	+ 2
Fighter-Bomber, Glide Bomber, Torpedo Bomber, Aircraft Guns, Ohka, FX 1400, Hs 293, Kamikaze	+ 0
Salvo Rockets, Tiny Tim, Low level bomber	– 1
Medium level bomber	– 3
High level bomber	– 5
Torpedo attack modifier	+ 2 to – 2
Target size modifier	+ 3 to – 4
Per Flak Marker on attacking aircraft	– 1
Per Splash Marker on the target vessel except with torpedo attacks	– 1
Target has damaged steering (SV = 0)	+ 1
Target moving <i>Slowly</i>	+ 1
Target <i>Stopped</i> or is a Land Target	Re-roll misses

line to the target, and totals these.

- If the target of a Salvo Rocket attack is a clump of stands of Type “X”, the attacks must be distributed evenly across the stands (1 must be applied to each stand before a 2nd ).
- When attacking a target other than Type “X”, roll all the dice for the attacking aircraft stand or clump, applying the appropriate modifiers to each of the dice. If the stand or clump declared multiple attacks, the attack dice are rolled for each attack. A final score of 11 or greater on d20 is required to hit.

For each hit place 1 splash marker on the target and apply the IP damage to the target. If necessary carry out a Wreck Test on the target.

A ship could be wrecked by the first hit in an attack from a stand, then that wreck could be destroyed by a subsequent hit from the same stand. If this happens any additional attacks that had scored a hit against the current target are considered as spent.

- Cross out the attacks that have been expended, regardless of whether they hit or miss.
- For hits on targets other than Type “X” check for any critical hits using the CV of the attack. If successful roll for Critical Damage on the appropriate table and apply the results immediately. The armour penetration values of bomb, gun and rocket attacks are in the Aircraft Data tables.

Merchants and AMCs roll an additional test against the CV to see if they suffer more critical damage, over and above the normal number of rolls.

Torpedo hits use the mid-ships dice score column on the Underwater Critical Damage Table.

Rockets have a variable penetration number (1d6).

If the target has Poor Underwater Protection and an Underwater Critical Damage test was required, this is re-rolled if it “failed”.

- **Each time a target is hit by rocket salvo it must take a Crew Test. If the test is failed, the target goes “Out of Command” for the remainder of the current turn.**
- Stands and clumps are treated as separate attacks within the same squadron, so the effects of one attack will have an effect on the next. If there are further attacks on a target, roll to hit, with modifiers based on the new state of the target.
- If the designated target of a stand or clump is eliminated before all its attacks have been completed the unused declared attacks from the clump or stand are treated as expended.
- If the designated targets of the squadron are eliminated before all its stands or clumps have attacked, those that have not yet attacked withhold their unused attacks, but cannot select new targets during this Action Phase.
- If the squadron has expended all its attacks, it may remove some or all of its stands from the table in the Movement Phase of a subsequent turn, if the player wishes. This may be so that they can return to base to refuel and rearm, in order to make another attack.

If the stand being removed is in contact with an enemy fighter, the moving stand may be subject to an Intercept Attack.

If the carrier or air base is on the table, a stand may be moved to the Landing Box on the Carrier Record Sheet.

If the carrier or air base is on a different table, the stand is moved to the “Return to Base” (RTB) box on its home table. It does not have to dice for entry on its home table.

**Attacking ships targets of Type “X”**

These targets can be attacked by aircraft with rockets. They can also be strafed or attacked with anti-shipping guns – see the following section.

Targets of Type “X” might be in single stands or a clump. If they are in a single stand the attack dice are all applied to that stand. If they are in a clump, attack dice are distributed among the stands in a clump (similarly to when firing AA factors against aircraft).

Attacks with rockets are resolved in the usual fashion and IP damage is applied, though there are no critical hits.

**9.10 – Aircraft attacking ships with guns**

Aircraft can attack some ships with their guns, either by strafing them or using anti-shipping guns. In order for an aircraft squadron to attack a ship with guns the attacking stands must be placed in contact with the target vessel. The aircraft moving into contact must have been able to see the target before they moved (the target must have been in Tactical Visibility range) and the line of sight was free of areas of Bad Weather. The movement of attacking aircraft takes place in the Movement Phase, and there are specific rules about displacing ships, if necessary, outlined in that rule section.

Many aircraft can make strafing attacks with fixed guns. Usually the aircraft will be fighters or fighter-bombers though there are other types of larger aircraft that also have fixed forward firing guns and if they are shown as having a Strafing ACF with a value of 0 or greater, then these can attack. When a stand has used its Strafing ACF (ACF S) it is regarded as having fired all its fixed gun ammunition and should return to base to refuel and re-arm. It can no longer make Intercept attacks and if it gets involved in a dogfight it would only be able to use a reduced Dogfight ACF (Dogfight 2) if that were available. The ACFs for Intercept and Dogfight 1 are treated as having a value of “-”.

Some aircraft carry larger calibre guns suitable for attacking shipping. If they are shown as having an Anti-shipping ACF (ACF A/S) with a value of 0 or greater, then these can attack. When a stand has used its Anti-shipping ACF this attack method is crossed out as it can only be used once.

**Permitted Targets**

Aircraft can attack targets of Type “X” using a strafing or anti-shipping ACF. Unarmoured ships of types “A%” or “C%” can only be attacked with aircraft guns using an anti-shipping ACF.

**Resolution**

Aircraft gun attacks use the number of attack dice, and the modifiers shown in the table in the previous section dealing with aircraft attacking ships.

**Damage**

When a ship is hit by strafing or an anti shipping gun the result must be validated rolling a d20 and adding the Strafing or Anti-Shipping ACF in the following table.

<b>Score</b>	<b>Effect</b>
1 – 10	No effect
11 – 15	Place 1 splash marker
16 – 20	Place 1 splash marker and do 1 IP damage

Aircraft gun hits do not cause Critical Damage. As the attack has no CV they cannot be used to remove Wrecks.

If attacking an unarmoured carrier or air base, the ACF is used instead of the CV to test for fires if the target is hit, regardless of whether or not the validation roll was successful.

## 9.11 – Aircraft attacking ships with standoff weapons

Standoff attacks are launched by aircraft stands at some distance from the target, so the attacking aircraft are less exposed to anti-aircraft fire. The target must be within Tactical Visibility range of the aircraft stand and there must be a clear line of sight free from obstructing areas of Bad Weather. Stand-off attacks cannot be used against targets of Type “X”. The following are standoff weapons:

- **American “Tiny Tim” rocket**

This weapon has a range of 1 RB and a minimum range of 10cm. The attack is treated like a Bomb for purposes of armour penetration.

- **German Henschel Hs 293 rocket bombs\***

This weapon has a range of between 2 and 4 Range Bands and a minimum range of 2 Range Bands. The attack is treated like a Bomb for purposes of armour penetration.

- **German FX 1400 glide bombs\***

This weapon has a range of 1 RB and a minimum range of 10cm. The attack is treated like a Bomb for purposes of armour penetration.

- **Japanese Ohka manned rocket bombs\***

This weapon has a range of between 1 and 3 Range Bands and a minimum range of 1 Range Band. The attack is carried out on a flat trajectory and hits the side of the target for purposes of armour penetration.

**\* Critical effects caused by these weapons can be re-rolled once.**

Tiny Tim, Hs 293 and FX 1400 were carried in multiples on the aircraft, and can therefore make multiple attacks on their target. In such a case the number of attacks being expended must be declared at the same time as the attack, before rolling any dice.

Only one squadron can attack a single target vessel in one turn. More than one ship could be attacked by that squadron in the same turn, as long as the target ships are all visible from the aircraft stands from the squadron.

### **Ohka attacks**

In the case of the Ohka the target of each attack die must be randomised among potential targets in attack range. This means that it could easily be that an attack is made against a less valuable enemy target than you would wish. Note that in this case a wreck is treated as a potential target. Otherwise proceed as below. If a wreck is hit, do the normal CV test for its removal.

### **Attacking aircraft contacted (intercepted) by enemy fighters**

If an attacking aircraft stand is in contact with an enemy **fighter** stand when it makes its attack, it may be attacked by the enemy fighter stand if the rules for Intercept Attacks permit this. This is resolved before the attack dice are calculated for the anti-ship attack.

**In order to carry out an Intercept Attack, an aircraft must have an Intercept ACF with a value of 0 or more.**

### **Resolving attacks**

- The squadron being activated must first declare its intended target(s) (randomised in the case of an Ohka).
- The attacking stand or clump must be “In Command” in order to make an attack.
- The number of attacks that can be made by a stand is determined by how many aircraft are left. The table in the previous section shows the number of d20’s that can be rolled by a stand.

- Each stand or clump in a squadron attacks its target(s) before moving to the next.
- If an attacking stand is in contact with an enemy fighter then that fighter may be able to make an Intercept Attack. Resolve any such attacks first.
- Select a stand or clump and ascertain how many attack dice are available. An isolated stand has a number based on its surviving aircraft. A clump of stands ascertains the number of dice for each component stand, and totals these.
- Roll all the attack dice for the stand or clump together, applying the modifiers shown in the Air Attacks on Shipping table to all the dice. If the stand or clump declared multiple attacks, the attack dice are rolled for each attack. A final score of 11 or greater on d20 is required to hit.
- After ascertaining the number of hits for the stand or clump, apply the IP damage to the target. Place one splash marker per hit on the target.
- If necessary carry out a Wreck Test on the target.
- Cross out the attacks that have been expended, regardless of whether they hit or miss.
- Check for any critical hits using the CV of the attack. If successful roll for Critical Damage on the appropriate table and apply the results immediately. The armour penetration values of the attacks are shown in the Aircraft Data tables.

**In the case of Critical Hits by Hs 293, FX 1400 and the Ohka, the attacking player may re-roll the result on the table once if he is not happy with the first result.**

Merchants and AMCs roll an additional test against the CV to see if they suffer more critical damage, over and above the normal number of rolls.

- Stands and clumps are treated as separate attacks within the same squadron, so the effects of one attack will have an effect on the next. If there are further attacks on a target, roll to hit, with modifiers based on the new state of the target.
- If the designated target of a stand or clump is eliminated before all its attacks have been completed the unused declared attacks from the clump or stand are treated as expended.
- If the designated targets of the squadron are eliminated before all its stands or clumps have attacked, those that have not yet attacked withhold their unused attacks, and cannot select new targets during this Action Phase.
- If the squadron has expended all its attacks, it may remove some or all of its stands from the table in the Movement Phase of a subsequent turn, if the player wishes. This may be so that they can return to base to refuel and rearm, in order to make another attack.

If the stand being removed is in contact with an enemy fighter, the moving stand may be subject to an Intercept Attack.

If the carrier or air base is on the table, a stand may be moved to the Landing Box on the Carrier Record Sheet.

If the carrier or air base is on a different table, the stand is moved to the “Return to Base” (RTB) box on its home table. It does not have to dice for entry on its home table.

<b>Structural Critical Damage Table</b>				<i>(Shaded items cannot be repaired in the game)</i>
<b>d20</b>	<b>Sub table</b>	<b>Area</b>	<b>Armour Protection</b>	<b>Effect</b>
1 – 2		Hull	Belt (Deck)	EITHER: Flotation is reduced by 1 per [1]. If F is reduced to 0, carry out a Wreck Test now. OR: If F is already = 0, carry out a Wreck Test now. In either case if this fails the ship sinks and the model is removed immediately. <b>NO wreck marker is placed in this case.</b> <b>All available CV is used up by this result.</b>
3	1 – 5	Optics Radar	None	Ship Gunnery Modifier reduced by 1 per [5] If the ship carries SEARCH RADAR this is lost on first such hit. <b>All available CV is used up by this result.</b>
	6 – 10	Spot. Top Masts	None	Mast brought down. Spotting Distance reduced by 1 band per [4] (to a minimum of 0). <b>Re-roll on main table to apply any unused CV.</b>
4		Crew (Ratings)	None	Damage Control teams reduced by 1 per [5] (to a minimum of 0). <b>Re-roll on main table to apply any unused CV.</b>
5		Fire Control	Conning Tower (½ CT)	Fire control is reduced by 1 per [1] (to a minimum of 0). When FC = 0, use local control <b>Re-roll on main table to apply any unused CV</b>
6		Command	Conning Tower (½ CT)	Crew Quality reduced by 1 only [5] (CQ can go below – 2) <b>Re-roll on main table to apply any unused CV.</b> If flag officer present, Roll d20. If the result is > CV, the officer suffers only a minor injury and carries on. If the result is less than or equal to the CV, the Officer is killed. His Number 2 takes over, so the Command Value is reduced by 1. (Command value can go below – 2)
7 – 9		Engine Room	Belt (Deck)	Speed in knots is reduced by 1xCV plus 1d6 (to a minimum of 0). Lose smoke making ability from the first hit. Remove any smoke screen attached to this ship immediately. <b>All available CV is used up by this result.</b>
10		Steering	Belt (Deck)	Steering Value is reduced by 1 per [1] (to a minimum of 0). When Steering Value (SV) has been reduced to 0, a successful Crew Test is required to make a turn. <b>Re-roll on main table to apply any unused CV.</b>
11		Helm	Belt (Deck)	As 10, but in addition... Target rolls Crew Test. If passed, no further effect. If failed ship suffers temporary loss of control. <b><u>A Splash Marker is placed on the ship.</u></b> Roll d20: the ship makes an immediate turn to (1-10) Port, (11-20) Starboard, then moves MVR ahead. This happens even if the steering is out of action or speed is 0 ! This result does not “linger” into the next turn. It may result in a collision when it occurs, and the effects of this are applied immediately. <b>All available CV is used up by this result.</b>
12		Sensors	None	1st hit: Lose Searchlights at a cost of [3] – <b>Re-roll on main table to apply any unused CV</b> 2nd hit: Lose all spotter planes and launch capability at a cost of [4]; immediately roll a Fire Test – <b>Re-roll on main table to apply any unused CV</b> 3rd hit: Lose all Gunnery Radar at a cost of [5] MAIN, OTHER and AA Fire with LRF all lose the +1 to hit modifier – <b>Re-roll on main table to apply any unused CV</b> The effects are shown in the order in which they must be applied. If a ship is not equipped with an item, drop down the table until a valid result is possible. If no valid result is available treat as an effect that “cannot be applied” as described in the rules.
13		Fire	None	Add 1 Fire per [5] <b>All available CV is used up by this result.</b>
14 – 20		Weapons	Turret (½ Turret) or Casemate (Deck)	Owning player rolls d10 to find which weapons group (MAIN guns, OTHER guns or TORPEDOES) on the Ship Data Sheet is affected. The effects are that... One MAIN gun mount may be lost – NOTE a magazine test may follow, which may also lead to the destruction of the ship and possible collateral damage (see rules) <b>All available CV is used up by this result.</b> Multiple OTHER gun mounts may be lost at costs shown on Ship Data Sheet. Any ASW⇒MRF⇒CRF factors will suffer incidental damage. (⇒ denotes order in which these are lost) <b>Re-roll on main table to apply any unused CV.</b> Multiple TORPEDO mounts may be lost at costs shown on Ship Data Sheet. <b>Re-roll on main table to apply any unused CV.</b>
<b>Merchant vessels use the result below</b>				
14 – 20		Cargo	None	The cargo on this ship is destroyed. If the cargo has already been destroyed, or the ship is not carrying cargo, this result is treated as if it cannot be applied (see 10.3). <b>All available CV is used up by this result.</b>

<b>Carrier/Air Base Critical Damage Table</b> (Shaded items cannot be repaired in the game)				
<b>d20</b>	<b>Sub table</b>	<b>Area</b>	<b>Armour Protection</b>	<b>Effect</b>
1 – 2		Hull	Belt (Deck)	EITHER: Flotation is reduced by 1 per [1]. If F is reduced to 0, carry out a Wreck Test now. OR: If F is already = 0, carry out a Wreck Test now. In either case if this fails the ship sinks and the model is removed immediately. <b>NO wreck marker is placed in this case.</b> <b>All available CV is used up by this result.</b> On air bases damage is applied to S instead of F, and Wreck Tests are applied when S=0
3	1 – 5	Optics Radar	None	Gunnery Modifier reduced by 1 per [5] If the ship carries SEARCH RADAR this is lost on first such hit. <b>All available CV is used up by this result.</b>
	6 – 10	Spot. Top Masts	None	Mast brought down. Spotting Distance reduced by 1 band per [4] (to a minimum of 0). <b>Re-roll on main table to apply any unused CV.</b>
4		Crew (Ratings)	None	DC teams reduced by 1 per [5] (to a minimum of 0). <b>Re-roll on main table to apply any unused CV.</b>
5		Fire Control	Conning Tower (½ CT)	Fire control is reduced by 1 per [1] (to a minimum of 0). When FC = 0, use local control <b>Re-roll on main table to apply any unused CV</b>
6		Command	Conning Tower (½ CT)	Crew Quality reduced by 1 only [5] (CQ can go below – 2) <b>Re-roll on main table to apply any unused CV.</b> If flag officer present, Roll d20. If the result is > CV, the officer suffers only a minor injury and carries on. If the result is less than or equal to the CV, the Officer is killed. His Number 2 takes over, so the Command Value is reduced by 1. (Command value can go below – 2)
7 – 9		Engine Room	Belt (Deck)	Speed in knots is reduced by 1xCV plus 1d6 (to a minimum of 0). Lose (OPTIONAL) smoke making ability from the first hit. Remove any smoke screen attached to this ship immediately. <b>All available CV is used up by this result.</b>
10		Steering	Belt (Deck)	Steering Value is reduced by 1 per [1] (to a minimum of 0). When Steering Value (SV) has been reduced to 0, a successful Crew Test is required to make a turn. <b>Re-roll on main table to apply any unused CV.</b>
11		Helm	Belt (Deck)	As 10, but in addition...Target rolls Crew Test. If passed, no further effect. If failed ship suffers temporary loss of control. <b><u>A Splash Marker is placed on the ship.</u></b> Roll d20: the ship makes an immediate turn to (1-10) Port, (11-20) Starboard, then moves MVR ahead. This happens even if the steering is out of action or speed is 0 ! This result does not “linger” into the next turn. It may result in a collision when it occurs, and the effects of this are applied immediately. <b>All available CV is used up by this result.</b>
12		Sensors	None	1st hit: Lose Searchlights at a cost of [3] – <b>Re-roll on main table to apply any unused CV</b> 2nd hit: Lose all Gunnery Radar at a cost of [5] MAIN, OTHER and AA Fire with LRF all lose the +1 to hit modifier – <b>Re-roll on main table to apply any unused CV</b> The effects are shown in the order in which they get applied. If a ship is not equipped with any of the items, drop down the table until a valid result is possible. When no valid result is available treat as an effect that “cannot be applied” as described in the rules.
13		Fire	None	Add 1 Fire per [5] <b>All available CV is used up by this result.</b>
14		Weapons	Turret (½ Turret) or Casemate (Deck)	Owning player rolls d10 to find which weapons group (MAIN guns, OTHER guns or TORPEDOES) on the Ship Data Sheet is affected. The effects are that... One MAIN gun mount may be lost – NOTE a magazine test may follow, which may also lead to the destruction of the ship and possible collateral damage (see rules) <b>All available CV is used up by this result.</b> Multiple OTHER gun mounts may be lost at costs shown on Ship Data Sheet. Any MRF⇒CRF factors will suffer incidental damage. (⇒ denotes order in which these are lost) <b>Re-roll on main table to apply any unused CV.</b>
15 – 16		Aircraft Operations	Armoured Flight Deck (None)	H is reduced by 1 per [1] (to a minimum of 0) Lose 1 Flight deck catapult as well each time you get this result (to a minimum of 0) <b>Re-roll on main table to apply any unused CV.</b>
17 – 18		Aircraft in hangar	Armoured Flight Deck (None)	RRR is reduced by 1 per [2] (to a minimum of 0) Roll d20 CV test against each aircraft stand on ship being refuelled or rearmed in the hangar. If the test rolls =< the CV then the stand is destroyed, otherwise it is unharmed. <b>All available CV is used up by this result.</b>
19 – 20		Fuel and ammunition	Armoured Flight Deck (None)	Add 1 FIRE. Carry out Carrier Fuel Explosion Test, which may also lead to the destruction of the ship and possible collateral damage (see rules) <b>All available CV is used up by this result.</b>

<b>Underwater Critical Damage Table</b>				<i>(Shaded items cannot be repaired in the game)</i>
<b>d20 Bow</b>	<b>d20 Mid-ships</b>	<b>d20 Stern</b>	<b>Area</b>	<b>Effect</b>
1 – 9	1 – 5	1 – 3	Bulkheads Catastrophic Flooding	EITHER: Flotation is reduced by 1 per [1]. If F is reduced to 0, carry out a Wreck Test now. OR: If F is already = 0, carry out a Wreck Test now. In either case if this fails the ship sinks and the model is removed immediately. <b>NO wreck marker is placed in this case.</b> Carry out a Crew Test (– 1 if ship has Poor Underwater Protection). If this is passed there is no further effect. If it fails, reapply this result using the full damaging CV. <b>All available CV is used up by this result.</b>
10 – 12	6 – 8	4	Engine Room	Speed in knots is reduced by 1xCV plus 1d6 (to a minimum of 0). <b>All available CV is used up by this result.</b>
13	9 – 10	5 – 6	Engine Room	Speed in knots is reduced by 2xCV plus 1d6 (to a minimum of 0). <b>All available CV is used up by this result.</b>
14	11	7 – 10	Engine Room	Speed in knots is reduced by 3xCV plus 1d6 (to a minimum of 0). <b>All available CV is used up by this result.</b>
15	12 – 14	11 – 15	Steering	Steering Value is reduced by 1 per [1] (to a minimum of 0). When Steering Value (SV) has been reduced to 0, a successful Crew Test is required to make a turn. <b>Re-roll on main table to apply any unused CV.</b>
16	15	16	Helm	As 15/12-14/11-15, but in addition... Target rolls Crew Test. If passed, no further effect. If failed ship suffers temporary loss of control. <b>A Splash Marker is placed on the ship.</b> Roll d20: the ship makes an immediate turn to (1-10) Port, (11-20) Starboard, then moves MVR ahead. This happens even if the steering is out of action or speed is 0! This result does not “linger” into the next turn. It may result in a collision when it occurs, and the effects of this are applied immediately. <b>All available CV is used up by this result.</b>
17	16	17	Crew (Officers)	Crew Quality reduced by 1 only [5] (CQ can go below – 2) <b>Re-roll on main table to apply any unused CV.</b> If flag officer present, Roll d20. If the result is > CV, the officer suffers only a minor injury and carries on. If the result is less than or equal to the CV, the Officer is killed. His Number 2 takes over, so the Command Value is reduced by 1. (Command value can go below – 2)
18	17	18	Crew (Ratings)	DC teams reduced by 1 per [5] (to a minimum of 0). <b>Re-roll on main table to apply any unused CV.</b>
19	18 – 19	19	Power Failure	Ship wide power failure To carry out any task in the Action Phase from now on (including night time spotting identification rolls and landing aircraft on carriers) the ship must pass a Crew Test. This happens when the ship activates in the Action Phase each turn. Only 1 test is made for the ship, it either passes or fails. This has no effect on actions carried out in the Movement Phase. <b>All available CV is used up by this result.</b>
<b>Warships except Carriers use the result below</b>				
20	20	20	Weapons	Owning player rolls d10 to find which weapons group (MAIN guns, OTHER guns or TORPEDOES) on the Ship Data Sheet is affected. The effects are that... One MAIN gun mount may be lost – NOTE a magazine test may follow, which may also lead to the destruction of the ship and possible collateral damage (see rules) <b>All available CV is used up by this result.</b> Multiple OTHER gun mounts may be lost at costs shown on Ship Data Sheet. Any ASW⇒MRF⇒CRF factors will suffer incidental damage. (⇒ denotes order in which these are lost) <b>Re-roll on main table to apply any unused CV.</b> Multiple TORPEDO mounts may be lost at costs shown on Ship Data Sheet. <b>Re-roll on main table to apply any unused CV.</b>
<b>Carriers roll d20. If the result is &gt; original H use the result above, otherwise use result below</b>				
20	20	20	Fuel and Ammunition	Add 1 FIRE. Carry out Carrier Fuel Explosion Test, which may also lead to the destruction of the ship and possible collateral damage (see rules) <b>All available CV is used up by this result.</b>
<b>Merchant vessels use the result below</b>				
20	20	20	Cargo	The cargo on this ship is destroyed. If the cargo has already been destroyed, or the ship is not carrying cargo, this result is treated as if it cannot be applied (see 10.3). <b>All available CV is used up by this result.</b>

# 11 — ACTION PHASE – SPECIAL RULES

This rules section covers a number of additional rules applicable in the Action Phase, but which may not be in general use for all games.

- Ship-borne Aircraft (11.1).
- Transferring Commanders (11.2).
- Mixed Gun Batteries (11.3).
- Dual Torpedo Mounts (11.4).
- Double Deck Turrets (11.5).
- Flash-less Propellant (11.6).
- Japanese Torpedoes in World War Two (11.7).
- Japanese Special AA Weapons (11.8). This covers 4.7” Type 5 AA Rockets and Common Type 3 Incendiary Shrapnel rounds.

## 11.1 – Ship-borne Aircraft

Ship-borne aircraft are used in these rules as part of the underlying system that determines the Strategic Initiative. One of their chief roles was reconnaissance for the fleet, particularly if you were not blessed with aircraft carriers. Before the invention of radar, warships made use of spotting aircraft to help with gunnery resolution as they could observe the fall of shot and radio back corrections to their gunnery officers. The Ship Data Sheet shows how many aircraft may be available on the ship.

Ship-borne aircraft must be launched during the course of the game. They cannot be deployed on-table at the start.

Ship-borne aircraft move like other aircraft in the movement phase. In the Action Phase they are activated at the same time as their “parent” squadron.

If the squadron of ships is equipped with one or more aircraft, each ship may attempt to launch one aircraft per turn, when it is activated during an Action Phase. This requires a successful Crew Test rolled on d10 requiring 6 or more for success. Launching larger numbers of aircraft might take several turns. Aircraft launched in subsequent turns to replace losses are automatically added to the stand.

<b>Launching spotting aircraft modifiers (d10)</b>		
<b>If the ship is in an area of Bad Weather, re-roll if successful</b>		
Crew Quality		+ 2 to - 2
# Fires on testing ship:	1 – 2	-1
	3 – 6	-2
	7 – 12	-3
	13 – 20	-4
	21 or over	-5

Aircraft that are successfully launched from a squadron of ships are all placed in ONE stand, which is regarded as a new Squadron (of aircraft). This stand is placed in contact with one of the ships in the squadron. It remains in contact until it reaches the desired strength. If this means that the launch will be spread over several turns, the aircraft stand is moved with the squadron of ships when it moves. The stand does not have to stay in contact with the same ship but must be in contact with one of the ships of the squadron.

When the owning player is satisfied that he has enough aircraft in the stand it can be moved immediately, up to its move distance, as if it had been launched from an aircraft carrier. Note however that the morale of the stand is based on the number of aircraft in the stand when it moves out of contact with the ship squadron. If it is attacked while in contact with its “parent” ships any losses are ignored for the purpose of morale, as the morale threshold is only set when the stand leaves the ships. While such aircraft do have ACF values, it is not recommended that they join combat with more

capable aircraft.

Aircraft can be “topped up” as required during subsequent Action Phases by launching further aircraft. These “top up” aircraft do not increase the morale threshold, but they do replace any losses incurred before the stand needs to test for morale.

### Command and Crew Quality of Ship-borne aircraft

A stand of Ship-borne aircraft is treated as an independent squadron, and always has a Command Value of +0. (This is to avoid having to change the current Initiative modifiers each time a stand of spotter aircraft is launched.) They have the Crew Quality of the ships in the squadron, but if there are varied levels of Crew Quality, they take the lowest current value among the ships that launched aircraft. This means that you can hold back aircraft from a ship where the Crew Quality is lower than that on the other ships.

### Spotting Fall of Shot for gunnery

- Aircraft cannot carry out gunfire spotting if there is an enemy fighter stand in contact with the spotter stand, unless the enemy fighter is itself contacted by a friendly fighter stand.
- Aircraft cannot spot for gunnery at night.
- There must be a clear line of sight between the plane and the target.
- The target must be within HALF the prevailing Tactical Visibility range of the spotting aircraft (rounding up).
- The shooting ship, target, and spotting aircraft may not be in areas of Bad Weather.
- Ships, Smoke, Wrecks and Land do not block the line of sight in this case.
- You may not use spotting aircraft while firing under local control.
- You cannot use radar and spotting aircraft, it is a case of one or the other.
- The stand of aircraft spotting for gunnery can make a number of Crew Tests based on the number of aircraft in the stand (see table below). Each successful Crew Test allows 1 ship in the parent squadron to attack 1 target ship in visibility range of the spotter (and gun range of the ship). A ship can use all its gun

<b>Using Ship-borne spotting aircraft</b>		
Number of aircraft		# of tests
1 – 2		1
3 – 6		2
7 – 12		3
<b>Gunnery ‘To Hit’ Modifiers when using spotting aircraft</b>		
Crew Quality		+ 2 to - 2
# of guns shooting at target		
1 – 2	[1 roll for Critical Damage]	- 1
3 – 6	[2 rolls for Critical Damage]	+ 0
7 – 12	[3 rolls for Critical Damage]	+ 1
13 – 20	[4 rolls for Critical Damage]	+ 2
21 and over	[5 rolls for Critical Damage]	+ 3
Shooting ship can also see target		+ 1
Target size modifier		+ 3 to - 4
Per Splash Marker on shooting and target vessels		- 1
Per Flak Marker on spotting aircraft		
Gunnery Modifier		+ ? to - ?
Target damaged steering (SV = 0)		+ 1
Target moving <i>Slowly</i>		+ 1
Target <i>Stopped</i> or is a Land Target		Re-roll misses

batteries against this target if they bear, and have the range. Several ships could attack a single target vessel. It is not possible, however, for one ship to attack more than one target (with different gun batteries) when using gunnery spotters.

All the other rules for resolving gunnery apply. The tables below show the “to hit” scores and modifiers applicable when using a spotting aircraft.

### 11.2 – Transferring Commanders

Commanders can be transferred from ship to ship with a squadron in the Action Phase. In order to do this both ships must have moved *Slowly*, and the bows of their vessels must be within 10cm of each other.

### 11.3 – Mixed Gun batteries

Some Ship Data Sheets show that the vessel has mixed gun batteries. This indicates that a battery on the ship has the same calibre of gun, but with slightly differing characteristics.

The vessels concerned are:

- German Armoured Cruisers of the Scharnhorst class. This is due to a different range for the turret and casemate guns
- British S class destroyers (1944/1945). The 4.5” dual purpose guns have a slightly different AA capability (incorporated in the underlying calculation of the LRF for the ships).
- Japanese Hatsuharu class destroyers. The 5” single and twin turret guns have significantly different AA capabilities (incorporated in the underlying calculation of the LRF for the ships).

Whatever the reason may be, the guns in a mixed battery are used together in a single salvo against a single ship target using the normal gunnery routine. They may not be treated as separate batteries and shot at different targets.

### 11.4 – Dual Torpedo mounts

Italian Navigatori Class Destroyers were fitted for a time with torpedo mounts with two calibres of torpedo. As built these vessels carried two triple Torpedo mounts each with two 21" and one 17.7" tube. The smaller tubes were removed in the early 1930s.

### Shooting

When these are fired, the attacking player must specify which calibre is being fired, and only one calibre can be fired in a turn.

### Critical Damage Effects

For the purpose of the rules, a 21" and a 17.7" mount are lost together each time a mount is lost, the CV cost being 3 (the total number of tubes in the mount).

### 11.5 – Double Deck turrets

This very rare phenomenon requires some special rules. Note that hits on the lower level of these turrets cause two Magazine Tests, while those on the upper level cause one.

### Shooting

Note that the upper level guns must fire at the same target as the lower level MAIN battery. This applies to both the Kearsarge and the Virginia classes.

On the Virginia Class there are additional broadside Turrets. The upper level 8” guns must fire at the same target as either of the broadside 8” turrets. If the MAIN 12” guns engaged a different target then the upper level guns cannot be used, unless all the 8” guns that could fire also engage that target.

### Critical Damage Effects

The guns on the lower level will be the MAIN guns on the Ship Data Sheet. If they are hit by a Critical Damage result, the effects are determined as normal. If the lower level guns are lost the upper level guns are lost as well.

The guns on the upper level will be one of the OTHER guns on the Ship Data Sheet. If a hit has to be taken on the upper level guns, and these are lost, there is no effect on the lower level guns, however a Magazine Test must be taken.

When a Magazine Test is taken because of an effective hit on either the upper or lower level guns it is carried out as usual, using the CV of which ever level guns caused the test.

### 11.6 – Flash-less propellant

At night, firing your guns will reveal you to your enemies due to the muzzle flash. In World War Two, certain navies may have the benefit of flash-less propellant for some of their guns. Supplies of such propellant were never enough for Great Britain and the United

<b>Flash-less propellant availability modifiers by nation, calibre, and date (d10)</b>								
Crew Quality	Apply +2 to –2 (or lower) as usual, plus modifier by nationality and date...							
<b>Nation</b>	<b>Calibre</b>	<b>1939</b>	<b>1940</b>	<b>1941</b>	<b>1942</b>	<b>1943</b>	<b>1944</b>	<b>1945</b>
France (incl Vichy)	Up to 5.1”	-1	-1	-1	-1	n/a	n/a	n/a
Germany	Up to 5”	+0	+0	+0	+0	+0	+0	+0
	5.9” to 8”	-1	-1	-1	-1	-1	-1	-1
	Over 8”	-1	-1	-1	-1	-1	-1	-1
Great Britain	Up to 4.7”	+1	+1	+1	+1	+1	+1	+1
	6” to 8”	n/a	n/a	n/a	+0	+0	+0	+0
	Over 8”	n/a	n/a	n/a	-1	-1	-1	-1
France (FNFL)	Up to 5.1”	n/a	n/a	+0	+0	+0	+0	+0
Netherlands	Up to 4.7”	n/a	n/a	+0	+0	+0	+0	+0
Poland	Up to 5.1”	n/a	n/a	+0	+0	+0	+0	+0
Italy	Up to 4.7”	-1	-1	-1	-1	-1	-1	-1
	5.3” to 6”	n/a	n/a	-1	-1	-1	-1	-1
	8” and over	n/a	n/a	-2	-2	-2	-2	-2
Japan	Up to 5.5”	n/a	n/a	+2	+2	+2	+2	+2
	6” to 8”	n/a	n/a	+0	+0	+0	+0	+0
	Over 8”	n/a	n/a	-1	-1	-1	-1	-1
United States	Up to 5”	n/a	n/a	+0	+0	+0	+1	+1
	6” to 8”	n/a	n/a	n/a	-1	-1	+0	+0
	Over 8”	n/a	n/a	n/a	n/a	n/a	-1	+0

States, however Japan was well prepared and trained extensively for night actions. The following rules have been developed based on our research into naval weapons, adapted so that they fit into the game mechanism, and also provide uncertainty and excitement. We are also a bit more generous in the provision of this equipment than may have been the case historically. Note, however, that not all batteries will have this propellant and those that do not should be marked accordingly. By using a Crew Test we are also reflecting that the ship may also have been in action before this battle, and a poor crew may have expended more propellant while better crews will have conserved ammunition.

It should be mentioned that this propellant generated much more gun smoke when fired. Our view is that this is less likely to have a significant effect at night, and is also incorporated in our rule that you cannot fire over a ship model.

Before a game which is determined to take place at night starts, a Crew Test is taken for those batteries on a ship that are allowed to use flash-less propellant. We recommend that the test be taken squadron by squadron and the results are applied to all the ships in a squadron. In a very small game it is acceptable to test per ship, and in a very big fleet action roll for the whole fleet.

If the ship is allowed to use flash-less propellant for a given calibre of gun, there is a modifier shown in the table below. If not the remark 'n/a' is shown and the propellant is not available.

If the test succeeds then the battery is equipped with flash-less propellant for the whole game.

### 11.7 – Japanese WW2 Torpedoes

The Japanese Navy devoted a lot of time to the development of torpedo tactics, including quick reload magazines for the large 24” torpedoes carried, which reputedly enabled the tubes to be completely reloaded under ideal conditions in 3 minutes. They also made use of oxygen as part of the propulsion system for the Type 93 M1 or M3 “Long Lance” torpedo. The reload systems and use of “Long Lance” torpedoes on Cruiser and Destroyer Classes are shown in the table, which lists the vessels that carry the Type 93 torpedo and which have the reload system. In two cases destroyers can be used with Type 90 weapons, without the inherent risks of carrying torpedoes of Type 93.

Note that on the Ship Data Sheets torpedo mounts carrying “Long Lance” torpedoes are prefaced by the mark ‘[∞]’.

#### Reloading

If the dataset shows the symbol ® in the torpedo mount data followed by a box, a reload magazine is available for this mount.

As wartime conditions are far from ideal, reloading of the tubes is not necessarily all that easy to accomplish. Reloading a mount is carried out as part of the ship’s activation in the Action Phase. To do so requires that the ship has moved *Slowly* during the Movement Phase of this turn, and passes a Crew Test in the current Action Phase. A d10 is rolled, modified as below, requiring 6 or better to succeed. Torpedoes cannot be fired in the same turn as a reload attempt is being made and only ONE mount can be reloaded per turn.

If the attempt is successful, the ® symbol is crossed out and the mount box to its right is now available for use.

<b>Japanese torpedo reload test modifiers (d10)</b>	
<b>If the ship is in an area of Bad Weather, re-roll if successful</b>	
Crew Quality	+ 2 to - 2
# Fires on testing ship:	
1 – 2	- 1
3 – 6	- 2
7 – 12	- 3
13 – 20	- 4
21 or over	- 5

<b>Japanese “Long Lance” and reload systems</b>		
<b>Class</b>	<b>Type 93</b>	<b>Reload</b>
Aoba (from 1940)	Yes	No
Furutaka (from 1939)	Yes	No
Mogami (from 1939)	Yes	Yes
Nachi (from 1941)	Yes	No
Takao (from 1939)	Yes	Yes*
Tone (from 1942)	Yes	No
Agano	Yes	Yes
Mogami (as Light cruiser until 1939)	No	Yes
Kitakami and Oi	Yes	No
Akatsuki (from 1937)	Yes**	No
Akizuki	Yes	Yes
Asashio	Yes	Yes
Fubuki (from 1937)	Yes**	No
Hatsuharu (From 1937)	No Yes	Yes
Kagero	Yes	Yes
Matsu	Yes	No
Shimakaze	Yes	No
Shiratsuyu	Yes	Yes
Tachibana	Yes	No
Yugumo	Yes	Yes

\* Note that some vessels do not carry reloads for all mounts and others had the reloads removed late in the war.  
 \*\* These classes did not always carry Type 93 weapons so Alternative Armament datasets are provided using earlier Type 90 torpedoes.

#### Critical Hits on torpedo mounts with reloads

If a Critical Damage effect requires the loss of a torpedo mount, the mount and its reload are lost at the same time at the normal CV cost. If the mount has fired its initial torpedoes but still carries a reload, then the mount is treated as still available for elimination, and is lost at the usual cost.

If a mount has fired its reload, then the whole mount is treated as no longer available, which may mean that the Critical Damage has to be re-rolled.

#### Critical Hits on ships carrying Type 93M1 or M3 “Long Lance” Torpedoes

This rule only applies to vessels which are carrying Type 93 “Long Lance” torpedoes. The negative aspect of these weapons was the use of oxygen as part of the propulsion system, and usually there was a fire crew in attendance while the weapons were being reloaded in port. This did not prevent accidental explosions occurring. In combat the problem is of course worse because any shell splinter can be the precursor to a fire and resulting explosion, so Japanese crews were also trained to jettison the torpedoes if necessary.

After the effects of the Critical Damage have been finalised, for every destroyed mount (or its reload) that still had torpedoes loaded a Crew Test is required rolling d10, modified as shown in the Reload Test above, requiring 6 or better to succeed. For each test that fails, roll on the Structural Critical Damage table, applying the result using the CV of the torpedo that exploded when interpreting the result. Armour penetration is NOT required, otherwise treat this as any other Critical Damage effect.

### ***Jettisoning Torpedoes***

A player controlling Japanese forces can declare that he is jettisoning his “Long Lance” torpedoes at any time during the Movement or Action Phases, when he is activating the squadron concerned.

Jettisoning is done by an entire squadron not by individual vessels. This does not require a Crew Test.

The immediate result is that the Squadron Commander loses face and must apologise later to the Emperor for wasting the valuable torpedoes. The effect is that his Command Rating is immediately reduced by 1.

Each ship must then roll a Crew Test to see if the crews on his ships understand why he gave the order. This requires a roll on d10, modified as shown below, requiring 6 or better to succeed. If this fails, the Crew Quality on that ship is reduced by 1.

<b><i>Japanese torpedo jettison crew effect modifiers (d10)</i></b>	
Crew Quality	+ 2 to - 2

The reductions are applied immediately and will affect activities from now on.

## ***11.8 – Japanese Special AA Weapons***

### ***4.7” Type 5 AA Rockets***

This weapon was mounted on most Japanese carriers towards the end of the Second World War. The mount was a box like structure containing 28 rockets, which were fired in salvos. Ships equipped with the device show summarised details of how they are used. The full rules are shown here.

The weapon data on the Ship Data Sheet identifies the weapon with the annotation “RP”, and in the details there are four, six or twelve boxes. Each of these boxes represents a mount on the ship, and provides three Attack Factors. The weapon can only used against targets in contact with the ship.

### ***Japanese Common Type 3 Incendiary Shrapnel***

These rounds were introduced in around 1943, though there is record of their use during the Guadalcanal campaign during a bombardment of Henderson field. Campbell quotes a splendid line from a Japanese officer speaking in English about the round, saying “The shell is bursted at the optimum points of the trajectory by fuze, and after that the energetic splinters sprint around igniferously”. With such a description, we cannot leave this ammunition out of the rules. Having said that, we must also say that, while looking hugely spectacular in use, it appears to have been equally ineffective.

The weapon data on the Ship Data Sheet identifies the weapon with the annotation “IS”, and in the weapon mount details there is one symbol ‘Ø’ by each gun mount. The symbol represents the ammunition supply for the mount shown, and the symbol is crossed out when it is fired. The data line shows how many Attack Factors are provided by the mount being fired (this varies according to the gun in use), and the range.

The target stand must be within the arc of fire of the gun mount used. If any part of a stand is in the arc, then it can be attacked, and therefore if it is part of a clump, any stands in the clump may be attacked.

If this weapon is fired from any mounts in a battery using IS rounds it cannot be fired against a surface target in the same turn (and vv). In addition, some of the weapons which have IS rounds are also capable of firing in a Dual Purpose role against aircraft using their LRF. The same principle applies here as well... you cannot fire LRF and IS in the same turn.

### ***Resolving attacks***

- Each ship in a squadron attacks its target(s) before moving to

the next ship in the squadron.

- A ship does NOT have to be “In Command” if it wishes to use AA Rockets or Incendiary Ammunition against an aircraft target.
- Select a ship and declare any AA Fire (or CRF/MRF, gun, or torpedo) attacks, before rolling any dice.
- In the case of Rockets, select a ship and declare how many attack boxes will be expended against a target stand or clump, before rolling any dice. Each box provides 3 attack factors. Cross out the box(es) used.  
In the case of Shrapnel, select a ship and declare how many ammunition boxes will be expended against a target stand or clump, before rolling any dice. Cross out the box(es) used. Note the restriction on arcs of fire when using this weapon.
- The total factors are applied to one target stand or clump of stands.
- If fired at a single isolated stand all the attack dice are applied to that target. See note under AA fire about friendly fire.
- If fired at a clump of stands the dice must be distributed evenly across the stands (1 die must applied to each stand before a 2<sup>nd</sup>). In the case of Shrapnel it does not matter if stands attracting dice are not in the arc of fire. See note under AA fire about friendly fire.
- Roll the attacking dice against the stands concerned. All the attack dice in the current attack are rolled against the target stand together, after which the effects are established. If the d20 score, modified using the table below, equals or exceeds the aircraft’s Defence Value a hit has been scored on that stand. A Flak marker is placed on the target stand for each hit scored.

<b><i>Anti Aircraft Combat modifiers</i></b>	
<b><i>“To hit” modifiers (d20)</i></b>	
Crew Quality	+ 2 to - 2
Per Splash Marker on ship and Flak Marker on target aircraft	- 1

- The defending player immediately carries out a Morale Check for each hit on any stand. This may mean multiple morale checks for a stand. You can roll multiple dice at the same time. If any of these tests fail, the target stand is moved one move directly away from the bow of the firing ship. If it would end up stacked on a ship or aircraft stand, it is moved further away so that there is at least 1cm space.
- A stand can only be pushed back once per attack resolution, so a stand hit by 3 factors, failing all three morale throws, is only pushed back once. However, it is possible that stands could be pushed back several times in one turn if hit by different attackers. If pushed off table then it must roll to re-enter as if it is a reinforcement.

### ***Note re Rockets***

When all the Rocket attack boxes have been expended, the mount is no longer treated as present on the ship for the purposes of Weapon Hit Distribution in the Critical Damage section.

### ***Note re Shrapnel***

If a mount with Shrapnel is hit and destroyed, the ammunition is destroyed with it. This does not cause any other additional effect on the ship. When selecting which mount has to be destroyed when a ship is hit, if there is a choice, then a mount still carrying the ammunition must be lost before one without.

## 12 — AIR OPERATIONS, CARRIERS AND AIR BASES

This rule section covers the use of aircraft and in particular the operation of aircraft carriers and air bases.

- An Introduction to the use of aircraft (12.1).
- Purchasing aircraft and payload (12.2).
- Combat effects on aircraft (12.3).
- After the attack (12.4).
- Operating carriers and Air bases (12.5).
- Landing Aircraft (12.6).
- Moving aircraft between areas (12.7).
- Refuel, Replace and Re-arm (12.8).
- Taking Off (12.9).
- Supporting on-table CAP (12.10).
- Japanese Hybrid Battleship-Carriers (12.11).

### 12.1 – An Introduction to the use of Aircraft

It is important to understand the different possibilities available when using aircraft. There are two options for games involving aircraft within these rules. Carrier engagements were fought over vast areas of ocean, unlike surface engagements which were, by comparison, “up close and personal.”

Games can be played on one table, which means that one side at least will field aircraft that appear from off-table. Carriers and air bases will normally only be deployed on table by one of the opposing sides. Aircraft are purchased for use in the game with a specific payload.

Alternatively you can field your forces on two or more tables, with play moving across a much larger playing area during the course of the game. In this case, aircraft are purchased with payload, as described for the single table game.

Aircraft can be refuelled and rearmed as long as they return to carriers or air bases purchased for the game. If an aircraft is capable of carrying alternative types of payload, then it is up to the player to purchase the most expensive option. It is assumed that the carrier or air base has enough supplies to refuel and re-arm all its aircraft, including alternatives, up to the limit imposed by the points paid for the aircraft. A carrier or air base can also replace lost aircraft in stands that return to base with intact morale.

#### *Aircraft speed*

For combat movement the aircraft have been given a game speed which is significantly lower than it ought to be (based on scales, etc.). This has been done for play balance. When aircraft have carried out their attacks or wish to land for other reasons, the game speed is no longer used, and stands can be moved immediately to their carrier or air base (if that is on table), or to a “Return to base” box on the home table if the stand is currently located on a different table.

#### *Effect of Night*

Aircraft cannot operate in the hours of darkness. The players may wish to decide when darkness will fall. Aircraft that are still on the table when darkness falls are lost.

#### *Land based, carrier and other aircraft*

You cannot land a land-based aircraft on an aircraft carrier; you can of course land a carrier aircraft at an air base.

You cannot land a floatplane or flying boat on an air base or carrier, unless the aircraft is an amphibian equipped with wheels, in which case it may land at an air base. You may also wish to assign an air base on an island the ability to recover floatplanes or flying boats.

#### *Using Friendly Bases*

It is possible that the carrier may be sunk or air base destroyed, in which case aircraft that need to return to a base may go to another friendly base or carrier as long as they can land at that location and there is capacity for them.

### 12.2 – Purchasing aircraft and payload

When you have carriers or air bases as part of your forces, you will also have an aircraft complement as well. At the start of the game you must decide how this will be composed. This may be according to your own plans or using data from historical references. In either case you cannot exceed the capacity of the carrier or air base as listed. Strike aircraft require payload and you will see from the Aircraft Data Lists that many have alternative payloads, also showing the costs. At the start of the game you must decide what payload you wish to use for the first strike with such aircraft.

If an aircraft is capable of carrying torpedoes or bombs, and you have purchased the most expensive option for that aircraft, it can be re-armed with any weapon that is cheaper. This may be smaller bombs or (if the aircraft can carry them) rockets.

You purchase aircraft and payload and generate Commanders and the Crew for them as described earlier. The costs of aircraft including various types of payload are shown for all five levels of Crew Quality, so you must select the correct value depending on which air force is using the aircraft concerned. When buying aircraft squadrons, you take the cost of a single aircraft and multiply this by the number of aircraft in the formation. Do not forget to add the cost of the Squadron Commander.

The maximum number of aircraft permitted in a squadron is 27. After that it is up to the player to assign numbers of aircraft to stands. The number of aircraft in a stand can be any number between the minimum shown in the Tactical Doctrine Table and the maximum of 27 aircraft. You cannot mix types of aircraft in one stand. A squadron can have stands with different types of aircraft in it, such as bombers and escorting fighters. All aircraft that have been purchased for use in the game must be assigned to a stand at the start of the game.

Unlike ships, the Crew Quality and Command Values applied at the start of the game is retained for the aircraft throughout the game.

Details of the aircraft squadrons are entered on the appropriate Squadron rosters. This must show the ID# of each aircraft stand, the number and type of aircraft, the combat values (ACF), payload, IP, PEN, Torpedo Hit modifier and CV, as well as the Crew Quality and Command Value.

### 12.3 – Combat effects on aircraft

If an aircraft stand loses all its aircraft to combat effects it is removed immediately.

If a stand loses enough aircraft to cause it to take a morale test, which it then fails, it is removed immediately and is eliminated.

If an aircraft squadron is reduced to half strength (in stands) and fails its morale test it is eliminated (and any stands in the RTB box are removed).

### 12.4 – After the attack

If its carrier or air base is on the table, a stand with intact morale may be moved straight to its carrier or base to carry out a Landing Action during the carrier’s or air base’s activation in the Action Phase.

If the carrier or air base is on a different table, a stand with intact morale is moved to the “Return to Base” (RTB) box on its home table. It does not have to dice for entry on its home table.