

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.

The content of the sheets follows the same order as the rules in the book and the first sheet shows a summary of these sections and indicates those that are affected by the current sheet.

PERFIDIOUS ALBION

NEW RULES, CORRECTIONS AND AMENDMENTS CONVERTING EDITION 8.0 TO EDITION 9.0

DATE: 22 AUGUST 2004

PERFIDIOUS ALBION RULES SECTION

1. INTRODUCTION
 - ⇒ Changes
2. PREPARING FOR BATTLE
 - ⇒ Setting up a game (2.1 New Rule)
 - ⇒ Costs of additional Forces (2.2 New Rule)
 - ⇒ Squadron Cohesion (Crew Quality new 2.4, old 2.2)
3. BATTLE RULES
 - ⇒ Sequence of Move (3.1)
 - ⇒ Winning and Losing (3.2 revised)
 - ⇒ Squadron Cohesion effect on Morale (3.3)
 - ⇒ Night Actions (New Rule 3.4)
4. MOVEMENT
 - ⇒ Weather effects on Movement (4.1 revised)
 - ⇒ Squadron Cohesion effect on Collision (4.4 clarified)
 - ⇒ Going Aground (4.5 revised)
5. GUNNERY
 - ⇒ Hit Resolution (5.5 Bombardment of land targets deletion and text moved)
 - ⇒ Other Damage effects (5.8)
 - ⇒ Damage Control (5.9)
6. TORPEDOES AND MINES
 - ⇒ New Rules section complete (6.1 to 6.5)
7. WAR IN THE AIR
8. GAME AIDS
 - ⇒ Revised templates

DOCKYARD MANUAL SECTION

9. INTRODUCTION TO THE SHIP DESIGN RULES
 10. TECHNOLOGY FIELDS AND LEVELS
 - ⇒ Table (modification re. torpedoes)
 11. HULL SIZE AND LAYOUT
 12. SUPERSTRUCTURE, TURRET, AND MAGAZINE LAYOUT
 13. PROPULSION SYSTEMS
 - ⇒ Fitting Propulsion Equipment (Funnels 13.2)
 - ⇒ Ship Cards (13.4)
 14. OTHER UNDERWATER EQUIPMENT
 - ⇒ Ship Cards (14.2)
 - TABLE OF GUN AND ARMOUR EQUIVALENTS
 15. ABOVE-WATER LAYOUT
 - ⇒ Quickfirer Groups (15.3)
 - ⇒ Ship Cards (15.4)
 16. ARMOUR
 - ⇒ Ship Cards (16.1)
 17. DETERMINING THE BASIC POINTS VALUE
 - ⇒ Component Costs
 - 18 THE FINAL STEPS
 - ⇒ Base PV (18.1)
 - ⇒ Ship Cards (18.4)
 - APPENDIX A — DESIGN RULES FOR AIRSHIPS & AIRCRAFT
 - APPENDIX B — SHIP GRIDS
-

Changes

The most significant change is that the Campaign section has been removed and is now posted on the internet.

The game types (missions) for the normal rules have been tidied up.

The torpedo rules have been modified and the flooding rules expanded for more variety.

New rules have been added for mines.

Most new rule sections are reproduced here in their entirety.

Setting up a Game (2.1 New Rule)

These combine texts from various parts of the previous edition. Some parts of the shore bombardment mission come from the previous campaign rules, but have been modified for a one off battle.

The new rule section is reproduced in its entirety in this document.

Costs of Additional Forces (2.2 New Rule)

Some of these rules were present in the previous edition, however they have been augmented and new costs added for Minefields.

The new rule section is reproduced in its entirety in this document.

Squadron Cohesion (2.2, 3.3 and 4.4)

The distance deriving from the crew quality is the **maximum distance** that a ship can be away from a friendly ship in the same squadron and still be in formation. Note there is an error in the Squadron Cohesion paragraph, because the distance should be **Crew Quality +3** in inches.

The mistake is repeated in the paragraph concerning Detached ships section in the Morale rules (3.3).

Collisions (4.4) are measured between the models, not the bases. The wording may appear misleading, but ships can be in base to base contact (or nearly) in the same formation. There is always a risk of collision if the bases cross during movement, as per the rules, so keeping some distance between the models is sensible, particularly if the crew is poor.

Sequence of Move (3.1)

The 5th Bullet point is modified and a new bullet point inserted below it as follows:

- If a moving ship passes through a torpedo firing marker and does not completely exit it by the wide end test for torpedo hits. Torpedo Boats and Destroyers may move over torpedo firing markers placed by themselves without risk in the turn in which they were launched.
- Ships that move into or through areas of minefields test for hits.

Winning and Losing (3.2 revised)

The text has been updated to summarise the victory conditions. It is still necessary to refer to the missions for full details of the conditions.

The three game types indicate in detail how you determine victory. At the end of each turn make the necessary victory calculations.

- In a fleet engagement, a side wins the game if it achieved its victory point target of 25% or more of its original points value in enemy ships sunk, surrendered or left the table, and at least 10% more than the enemy.
- In a convoy attack, the game ends when **more than** 50% of the cargo has either escaped via the exit box or has been sunk. The players then calculate other losses inflicted and compare totals.

- In a shore bombardment the game ends when attacker has finished his attack. The value of targets destroyed to bombardment is then added to ship losses he inflicted, plus batteries and forts destroyed. The defender gets the value of targets NOT destroyed plus the value of ship losses. The scores are compared to determine victory. Hitting some land targets causes outrage among neutral nations and the negative value of this is incorporated in the victory points calculations.

Night Actions (3.4 New Rule)

Visibility rolls are modified by -3 (cumulative).

Each vessel has a searchlight on its conning tower (one per tower if there are two CTs). Searchlights are lost if there is a hit on the CT box even if it is otherwise ineffective). Searchlights have a range of 12".

Burning ships or ships using searchlights can be engaged at a range 12" greater than current visibility range.

Detached ships outside normal visibility range must fire at a random ship if they fail a Crew Test. The potential target ships must be on the side of the firing ship where combat is taking place (i.e. where the gun flashes are). Any ship which has fired previously this turn, is using a searchlight, is illuminated by a searchlight, or is on fire is a potential target (including friends). The choice of target is randomised using a D10, counting outwards from the firing ship. If there are fewer ships than 10, then higher scores mean no fire.

Weather effect on Movement (4.1 revised)

This is a revised rule which takes crew quality into account for this test. While the number of dice rolls may be increased, it gives a better feel.

Effects of weather on movement

In a storm all ships with a bow at level 4 on the grid must roll a D6 every turn at the start of their movement. If this comes up 6, then they must take a Crew Test to prevent being swamped. If they fail, they take 1 flood for each number by which they failed the test. (Note that this will be fatal for small ships with 1 flotation).

Unstable ships test if the bow is at level 3 or 4.

Collisions and Ramming (4.4 clarified)

This is a revised rule. Change the final sentence of the second paragraph to read as follows:

The distance is measured from the nearest parts of the **ship models** concerned, not the bases.

Going Aground (4.5 revised)

This is a revised rule which takes crew quality into account for this test. Change the second paragraph to read as follows:

Roll a D10. Add 1 for each 1000 tons of the ship's displacement. A roll equal to or less than Crew Quality, whatever the modifier applied, will always mean that the ship has NOT grounded. Otherwise a ship will go aground on a result of 10 or more.

Bombardment of Land Targets (5.5)

This section has been deleted. The bombardment rules are replaced and the rules regarding shore batteries as targets are incorporated in new rule 2.2.

Other Damage Effects (5.8)

Hits on Funnels

The first time any section level containing part of one or more funnels is hit and devastated, the target will lose 1 speed unit. If a funnel extends into two rows on the grid, this is because the funnel was tall on the actual ship. In the case of tall funnels the upper section of the funnel must completely fill the vertical height of the grid section to be a valid target for damage effects. If a tall funnel is hit in two boxes then it loses two speed units. Any subsequent hits on funnels in the same section level have no further effect (other than causing potential fire damage from subsequent hits on the same section level).

If you look at the bottom left hand ship on the cover, a hit in 4/2 or 5/2 will cause the loss of 1 speed unit reducing speed to 13. A hit in 4/1 or 5/1 has no effect because they do not go to the top of level 1.

Hits on Propulsion rooms

As the ship loses propulsion rooms it slows by the number of speed units provided by the propulsion rooms lost.

Funnel hits and propulsion room hits are cumulative. If a hit on one funnel has caused the loss of a speed unit, and you then lose a propulsion box, speed units are lost based on the number that would have been lost due to the loss of the propulsion box.

Taking the previous example, the loss of a ½ PROP box (in this case) reduces the speed by 5 units to 8.

Damage Control (5.9)

There is a slight modification and clarification to effect of damage control, as follows. Replace the bullet points as follows:

- The steering gear may be repaired
- flooding or fire levels may be reduced by 1.
- Propulsion Damage may be repaired by 1 (increasing speed by the number of units provided by the PROP box).

Torpedoes and Mines (6 ff)

The new rules sections are reproduced in their entirety in this document.

Game Aids (8 ff)

Some of the game templates have been altered slightly and are reproduced in this document.

Technology Levels (10 — table clarification)

Torpedo technology depends on the torpedo types and calibres.

Level -2 are above water 14" and 15" torpedo tubes. These count as short range torpedoes.

Level -1 are submerged 14" and 15" torpedo tubes. These count as short range torpedoes.

Level 0 are 17.7" and 18" torpedo tubes. These count as medium (normal) range torpedoes.

Level +1 are 19.7", 21" and 22" torpedo tubes. These count as long range torpedoes.

Level +2 are any single trainable tubes.

Level +3 are any trainable twin tubes.

Ship Cards (13.4, 14.2, 15.4, 16.1, 18.4)

The details and numbers in the examples have been changed in the new edition to take account of some altered ship values calculations.

Fitting Propulsion Equipment (Funnels 13.2)

Replace the 4th paragraph with the following (note the effects mentioned under 5.8).

Funnels should be at least one level high on ships of over 2000 tons. On vessels with notably tall funnels in real life, these should fill two section levels vertically.

Fitting Underwater Equipment (Ship Card 14.2)

There are new definitions of torpedo flats to take account of different torpedo types, so that they appear on the ship card.

TTS, TTM, TTL Underwater torpedo rooms
(short, medium, long range)

Quickfirer Groups (15.3)

This revised rules section calculates the number of quickfirers in a better manner for the purpose of the rules.

Any section level that does not contain other guns may have a Quickfirer group. Each Quickfirer group represents groups of light guns. The number of quickfirers is calculated by totalling the weight of shot in lbs of all quickfirers on the ship and divide by 30.

If the ship is Size 3, round to the nearest whole number. These shoot all round.

If the ship is size 1 or 2 halve the number, then round to the nearest whole number. These are on the broadside and shoot to left or right.

Finally, if the calculation resulted in no QFs but the weight was greater than 15 lbs, the ship gets one QF.

Quickfirers may not be on the same level as a turret positioned so as to obstruct its fire. They may be placed in a hull or superstructure section level or on top of it at level 1. Although some Dreadnoughts had Quickfirers on top of their turrets this is only allowed if the turret is at level 2 and is a triple A turret.

Above Water Layout (Ship Card 15.4)

There are new definitions of torpedo tubes to take account of different torpedo types, so that they appear on the ship card.

STL Single trainable torpedo launcher*

TTL Twin trainable torpedo launcher*

* These are also marked with S, M or L depending on the type.

Component Costs table (17)

Replace the Torpedo entries in the table with the following.

Component	A	B	C
Fixed Torpedoes level 5 or 6* (Broadside) (Fore and Aft)	150 75	150 75	150 75
Fixed Torpedoes level 4 or 3* (Broadside) (Fore and Aft)	75 37.5	75 37.5	75 37.5

Base PV (18.1)

The calculations in the tables have also been modified. They are not reproduced here.

2 — PREPARING FOR BATTLE

2.1 – Setting up a game

Firstly the players should decide upon the game you want to play. There are three suggested types:

- Fleet engagement
- Convoy attack
- Shore Bombardment

In a convoy attack or shore bombardment, one side is the attacker and the other the defender. Some terrain may be desirable. This is selected from the following choices:

Areas of at least 8 square inches

- An Island OR an area of rocks OR a sandbar

Areas of at least 12 square inches

- An area of shallow water OR a land peninsula

Area of at least 16 square inches

- A coastline

Deploying Terrain

The players alternate selecting one terrain item and placing it on the table (subject to specific notes in each mission type where required). The first side to pick is determined by both sides rolling 1D10 and each adds the number of his admirals, adding the result of a further dice roll if there is still a tie. Terrain items can be placed anywhere the player wishes, except that they cannot be placed closer than 6" to another item of terrain.

Determining the Base Line

The game can be played from end to end or from side to side of a table. The side which selected the first terrain item may now decide which side of the table he wishes to use as his base line, with the provisions:

- that the defender against a Shore Bombardment or Commerce Raid must use a base line which causes the target of these missions to be on his half of the table.
- that the player running a convoy has his Exit box on his Base Line.

Determine Weather and Visibility

Roll 1D10 for sea conditions. The sea condition is 1 grade calmer when within 30" of land.

Roll	Sea State
1 to 6	Calm
7, 8	Rough
9	Heavy
10	Storm

Roll 1D6 for visibility, modified by -1 in heavy seas, -2 in storm conditions, +2 in calm seas.

Die Roll	Visibility
0 or less	6"
1	12"
2	18"
3	24"
4	36"
5	48"
6 or more	60"

Fleet engagement

In a fleet engagement both sides have an equal points value of warships. As a guideline suggested points values are 150,000 points per side. This figure includes the cost of squadron Commanders. A 21,000 ton Dreadnought with modern technology costs around 48,000 points, while a 12,000 ton Pre-Dreadnought costs around 19,000 points. These costs can be varied by different levels of crew quality. Either player may also choose to purchase minefields.

Deployment

Select 0 or 1 items of terrain and place these. Deploy terrain, determine the Baseline, weather and visibility. Next, to deploy dice for initiative. The winner decides who will deploy first (Player A). Initially one squadron is placed on Player A's table half not less than half the visibility range from the table centreline. Players B and A then place squadrons alternately as above. All squadrons must be able to see at least one friendly ship in another squadron, and all must be in signal range of the flagship. This is defined as being able to see a ship which can see the flagship. If one ship in a squadron is in signal range the whole squadron counts as being in signal range. The winner of the initiative roll may always place one squadron last.

Minefields are treated as a squadron when being deployed, and the centre of the minefield may be placed anywhere on the table, but not within 12" of an enemy formation. Ships ignore minefields when determining where they are placed.

Squadrons deployed outside visibility range of the enemy may be deployed as a marker instead of a formation. As soon as the marker moves into visibility range of the enemy it is revealed. Dummy markers may also be used.

Victory

In order to win each side has a Victory Point Target, which is 25% of the value of the opponent's fleet in ships sunk, surrendered or having left the table. This value must also exceed the opponents current Victory Point tally by at least 10%. At the end of every turn check whether the target has been achieved.

Convoy Attack

The convoy player (defender) buys a value of cargo in multiples of 10,000 points, with a minimum of 100,000. He then purchases escorts equal in points value to one half the cargo value, plus at least one merchant to carry this cargo. Merchant vessels cost around 10,000 points each. A selection of cargo and troop ships appears at the back of this book.

The cargo is distributed on the cargo vessels purchased. To do this you can decide how many '000 points you will load on a ship. This is then distributed evenly among the Cargo boxes on the ship. You can leave some ships empty as a decoy, and put all the cargo on one vessel if you wish.

The attacker buys ships equal to the total value of the escort plus half the value of the merchant ships bought by the convoy player.

Either player may also choose to purchase minefields.

Deployment

Select an Entry and Exit box, plus 1 or 2 items of terrain. The Entry and Exit boxes must immediately be placed at the edge of opposite sides of the table, with their nearest points 48" apart. No terrain may be deployed in the Entry and Exit boxes, or within 6". Deploy terrain, determine the Baseline, weather and visibility.

The Convoy and at least half its escorts (in numbers of ships) must deploy first in an Entry Box of 12" x 12". After that any remaining escorts and the attacking ships are set up as if for a Fleet Encounter.

Attacking ships must be deployed at least at visibility range from the entry box. They may not deploy within 12" of the Entry or Exit boxes. Minefields are deployed as for a Fleet encounter, but the centre point may not be placed within the exit box or less than 12" from the box.

Victory

The game continues until either the defender has exited **more than** 50% of the cargo points via the exit box, or the attacking player has destroyed **more than** 50% of the cargo carried on the merchants. Cargo leaving the table by any area other than the exit box counts as lost. Convoy ships leaving via the exit box do not count as lost in this case.

When this point is reached, both players then also add up the value of ships sunk, surrendered or having left the table (except convoy ships via the exit box), and add this value to the cargo exited or destroyed, as appropriate. The side with the higher total wins, though if the margin between the values is less than 10% it is probably a draw. Merchants ships sunk count their full points value in addition to cargo that they may have been carrying.

Shore Bombardment

The attacker chooses the size of his fleet in points value (probably at least 100,000 points), and also declares the number of turns his bombardment will last. This should be a minimum of 2 turns and a maximum of about 5 to 8. This limitation is due to the amount of HE ammunition the ships have chosen to carry. Bombarding ships must be armed with guns of at least type D. Any shot, even with only 1 gun from 1 ship, fired into the target grid counts as a turn of Bombardment. The attacker may not use Minefields.

The defender buys his forces of ships, forts, gun batteries and minefields totalling 50% of the value of the attackers forces, plus a bonus of 3,000 points for each turn of bombardment that the attacker declared.

Deployment

The attacker must select 1 item of land terrain. This item must be placed immediately on the table within 6" of one edge if an island, or adjacent to the edge if other land. It may not be placed within 12" of a corner of the play area. The defender may now select one or two additional items of terrain. Deploy terrain, determine the Baseline, weather and visibility.

The Bombardment target is set up by the defender on the coastline anywhere on the Defender's half of the table. Forts and shore batteries are then set up anywhere (on coastline or as islands) within 12" of the target. Any defending ships are set up within 12" of the target. Minefields can be anywhere on the defenders half of the table.

The attacker then sets up at extreme visibility range from all defenders or on his table edge, whichever is closer to the defender.

Bombardment

The attacker rolls for each straddle on the chosen bombardment chart with the appropriate guns. Each box hit gives a victory point value as shown on the target scheme. The first time that each box with a positive scoring value is hit, cross one box off the structure track. Note that there are three targets that give you increasing negative values if you hit them! Additional hits on destroyed areas that contained a target object do not provide extra victory points, but will cause Fires in the usual manner, leading to explosions, and there is a fire track on the grid. Fire fighting parties are available for each 5 undamaged structure boxes. Fire fighters are treated as being Crew Quality 2.

Victory

The Victory Point Target for the attacker and defender is 25% of the attacker's points value. The attacker scores points as described

above. When his last bombardment turn is over he totals the number of victory points he has from the bombardment, and adds the value of enemy ships sunk, surrendered or having left the table. He also adds the value of any shore batteries destroyed. If he has destroyed any forts then he gets 3000 points for each.

The defender then deducts the bombardment victory point value from 45,000 and adds the result to his victory points for enemy ships sunk, surrendered or having left the table.

The player that has achieved his Victory Point target and exceeded that of his opponent by at least 10% is the winner.

2.2 – Costs of Additional forces

The following additional forces are available in the rules.

Shore Batteries

The cost of each gun in a shore battery containing it is as follows:

A:	450	F:	45
B:	342	G:	22.5
C:	234	X:	585
D:	126	Y:	720
E:	72	Z:	900

A battery can be protected with armour, in which case the Casemate cost for that type of gun is added from the Dockyard Manual, regardless of the number of guns fitted. This basic cost is then modified by crew quality.

Shore batteries have a restricted arc of fire of 45 degrees to left or right of the direction they are facing. They fire as normal for their gun type using the gunnery rules. They may not move. All guns in one battery must shoot at the same target.

If bombarding shore batteries, roll 1D6 per straddle, scoring equal or less than the number of guns in the battery to hit it, in which case test for penetration as if firing at ships. A penetration will destroy the whole battery. If the guns are not armoured no penetration test is required and they are destroyed.

Forts

Grids for forts are provided and all are worth 3000 points, modified by the Crew Quality. All guns mounted on Forts will bear all round the building. Each time a part of the fort is destroyed cross out a structure box. When all structure boxes are crossed out the fort is destroyed. Multiple hits cause fires, and forts have 1 fire fighting party per 5 structure boxes. Fire fighting uses the fort Crew Quality. Hits on magazines are treated in the same way as hits on ship magazines. If an explosion takes place, then treat the magazine as if it were a torpedo hit, and roll 1D6 for each adjacent box. Boxes are destroyed on a 4, 5 or 6. A roll of 3 causes a fire on the fire track.

If an adjacent box contains a magazine, then this will cause a similar explosion like a "ripple effect." Hits above a magazine cause a test for a Flash Fire as if on a ship, though of course the magazine cannot be flooded.

If the generator is destroyed then the "to hit" factor of all guns is reduced by 50% (the loss of power is affecting efficiency).

Minefields

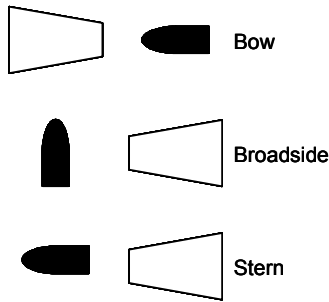
Minefields are defined by their density and size. The area is measured as a radius round a central point, marked on the table. The side that placed the minefield must clearly identify its ownership. Minefields do not move. They cost 100 points per unit of density (maximum value being 10) with a radius of 1 inch. Each increase in radius of 1 inch doubles the cost of the minefield. The maximum radius is 6 inches.

*A Minefield of density 4/radius 3 costs $400 \times 2 \times 2 = 1600$;
density 10/radius 6 costs $1000 \times 2 \times 2 \times 2 \times 2 = 16000$.*

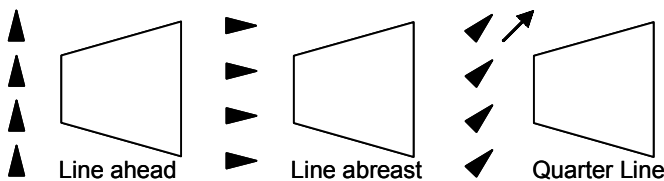
6 — TORPEDOES AND MINES

6.1 – The Basics

Torpedo firing markers are placed at the start of each move. If a ship has fixed torpedo launchers the marker is placed as shown below. The narrow end must touch the firing ship's base edge. Large warships with fixed launchers must place torpedo markers perpendicular to the ships hull, or in the direction of movement, as shown in the diagram below.



Large warships with Trainable launchers may place these at an angle up to 45° to the perpendicular anywhere along the side of the ship. Small ships such as destroyers and torpedo boats can place their markers pointing in any direction, as shown below:



The narrow end of the marker must touch the ship model that is launching the torpedoes, or at least two of the Torpedo Boats in a squadron. Place a counter with the number of torpedoes fired on the marker.

Vessels other than Destroyers and Torpedo Boats may fire their bow tubes only if they are going at a speed of 10 or less, otherwise they stand a risk of overtaking their own torpedoes and being attacked by them. Torpedo boats and destroyers can move over their own torpedo markers without risk of being hit due to their greater manoeuvrability in the turn in which they were fired.

This rule applies equally to Flotillas of Torpedo Boats and Destroyers when they fire salvos of torpedoes.

Torpedoes may not be fired by Torpedo Boats or Destroyers in Heavy Sea and Storm weather conditions.

A single Torpedo Boat/Destroyer uses a normal width marker. When firing torpedoes from a pair of boats on a single base, place a double width marker. A squadron of such vessels uses one or more double width markers. No more torpedoes can be launched than are available on all the ships in the squadron.

6.2 – Torpedo Types

For game purposes the size of the Torpedo defines its range and damage caused.

Spar Torpedo

These very primitive torpedoes are a warhead attached to a pole on the front of the ship. To use this, the attacker must successfully ram the target. The initial hit causes 1 flooding damage. The hit is scored in level 5 of the section determined by the ramming rules. The attacker suffers no damage.

Short Range

Torpedoes under 17.7" (such as 14" and 15") are short range torpedoes (TTS). The initial hit causes 1 flooding damage.

Short range torpedoes only have a range of 3".

Standard (Medium) Range

Torpedoes of 17.7" and 18" are medium range torpedoes and are the commonest weapon (TTM). The initial hit causes 2 flooding damage.

Long Range

Torpedoes over 18" (such as 19.7", 21" and 22") are long range torpedoes (TTL) and are relatively rare in this period. The initial hit causes 3 flooding damage.

When a long range torpedo is fired, place a marker as usual. If at the end of the turn the torpedo marker still has torpedoes that have not yet hit anything, next move place a double width marker with its narrow end at the wide end of the original marker, which is then removed. The second marker displays the number of remaining torpedoes, and is removed at the end of the second turn.

If the original shot used a double width marker, place two overlapping double width markers to define the area covered by the second turn of torpedo movement. The combined width at the narrow end of the second turn markers must match the width of the marker used in the previous turn.

6.3 – Reloading

Torpedo launchers on Destroyers and Torpedo Boats may be provided with one or more reloads. Larger ships always carry reloads. Any ship with a torpedo mount with reload capability can reload this during its activation in a turn by making a successful Crew Test, rolled separately for each torpedo mount or section being reloaded. You cannot reload and fire in the same turn.

6.4 – Resolution

If a ship moves through a torpedo marker and does not exit it completely via the broad end (opposite the launch point) then test for a hit for each torpedo in the marker by rolling a D6 and D10 as for gunnery. Hits on levels 1 to 4 have no effect - a torpedo cannot strike above water! If the target exits by the narrow end count this as a bow rake as in gunnery and roll 2 D6s making sure that the dice for section and level are identified when rolling.

If a ship is struck at level 5 or 6 by a torpedo then the section hit is destroyed and 1-3 flooding hits are taken based on the size of the weapon. If that section level has already been destroyed the target ship still takes this flooding damage.

Each torpedo that hits reduces the number represented by the marker. If the marker has no torpedoes left "to hit" remove it.

Spread of Flooding

Every torpedo hit may cause flooding in adjacent sections levels and this can be quite extensive. The crew must test to prevent the spread of flooding, and preventing flooding in section levels that already flooded is more difficult. A section level is not completely flooded in reality but many compartments have been compromised.

The test is resolved using a D6, which must be equal to or less than the target scores show in the diagram below, modified as follows:

Factors	Modifiers to target score
Crew Quality 1 Long Range Torpedo (TTL) Section level being tested already flooded Mine	-1
Crew Quality 3 Short Range Torpedo (TTS) Spar Torpedo	+1

First carry out a Test with a D6 for the five (two on shallow draft ship) adjacent underwater section levels. If any section level hit in this way has already been destroyed by shells or flooding it still tests. The upper of the two diagrams below shows the target scores required to prevent flooding for Medium torpedoes and Crew Quality 2 following a hit in level 5. The circled numbers are modified by the factors above. The numbers indicated are mirrored on the left of the point hit, and if the hit is in level 6 swap the two rows.

If the die is equal to or less than the target score no flooding happens in the section level. Be careful if the section level was already flooded to take note whether you need to test adjacent levels in the next step.

If the target score is exceeded the section level being tested is flooded, one is added to the flood track (and you will have to test for further section levels adjacent to it in the next step).

Flooding then spreads out horizontally from flooded section levels to left or right of the initial point hit. For ease of testing test outwards along a level. If the section level floods, then test again, until flooding is stopped.

In the above example the initial hit is flooded as Step 1, the five boxes around must be tested as Step 2. The lower diagram, shows the actual dice scores for a medium torpedo and Crew Skill 2. As can be seen the initial 5 rolls are 5, 5, 3, 2, 5, which floods 3 boxes when compared with the target scores. In Step 3 the adjacent levels to either side must be tested. The left on level 5 tests first, the target to prevent flooding being 4. The dice score was 5 which causes the flooding to continue, and the next section level is tested. The target is now 5. The die comes up 6, causing yet another flood. The flood cannot go any further in this case.

No test is required on the left on level 6.

Now test the section levels on the right. The target score on level 5 is 4, the score is 4 so flooding is prevented here. The target score on level 6 is also 4. The dice comes up 2 preventing flooding.

Magazine Hits

Torpedo hits only explode magazines if the torpedo actually strikes there and the ship's crew may still roll to flood the magazine and prevent an explosion, unlike a shell hit.

"Misses"

Torpedoes which do not strike a ship are still a danger to any other vessel which moves through the marker in that turn.

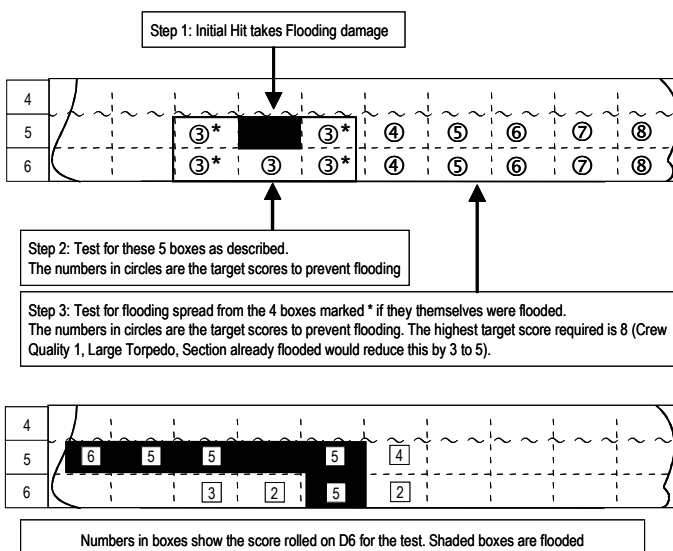
6.5 – Mines

Minefields can be purchased for use in the game, as described earlier. While mines are laid in fields that their owners will be aware of, they can become loose and drift into channels believed to be clear. Minefields are marked by a centre point and the minefield has a density and radius round that point. If a ship of any type spends any part of its movement inside a minefield, it must test for being hit as follows. If you are in the area of effect of more than one minefield, you test for each minefield separately.

To resolve the attack, total the factors from the table below and then treat in the same as a gunnery % hit chance with each 100% being a straddle. Roll to hit and resolve damage as per a torpedo attack.

The initial damage scored is 3 points. Flooding is resolved as for torpedo hits.

Basic to hit chance for Mines	
Factors	Modifiers
Mine attack	50% + 10% per point of density
Own Minefield Ended movement outside minefield	Chance halved (round x5% up)
Target speed < 5 units (but not drifting) Crew Quality 3	-10%
Target speed > 15 units Crew Quality 1 Weather Rough	+20%
Steering Gear Damaged Weather Heavy Ship drifting	+30%
Weather Storm	+40%



8 — GAME AIDS

Forts

Arrows denote risk of Flash Fire to magazines.

	1	2	3	4	5	6	7	8	9	10
1	FIRE									FIRE
2										
3			BB 5		FF 3	FF 3		BB 5		
4			6		6	6		6		
5			MAG		POWER	MAG		MAG		
6										

Structure:

16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
----	----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

FIRE	FIRE	FIRE	EXP
1	2	3	!!!

	1	2	3	4	5	6	7	8	9	10
1	FIRE									FIRE
2										
3			E 2	C 4	C 4	C 4	C 4	E 2		
4			4	5	5	5	5	4		
5			TORP	MAG	MAG	MAG	MAG	POWER		
6										

Structure:

18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
----	----	----	----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

FIRE	FIRE	FIRE	EXP
1	2	3	!!!

	1	2	3	4	5	6	7	8	9	10
1	FIRE									FIRE
2										
3		Q	D 5	D 5	Q	Q	D 5	D 5	Q	
4		4	5	5	5	5	5	5	5	
5			MAG	MAG		POWER	MAG	MAG		
6										

Structure:

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

FIRE	FIRE	FIRE	EXP
1	2	3	!!!

	1	2	3	4	5	6	7	8	9	10
1	FIRE									FIRE
2										
3				Q	A 6	Q	A 6	Q		
4				5	6	Q 6	6	5		
5					MAG	POWER	MAG			
6										

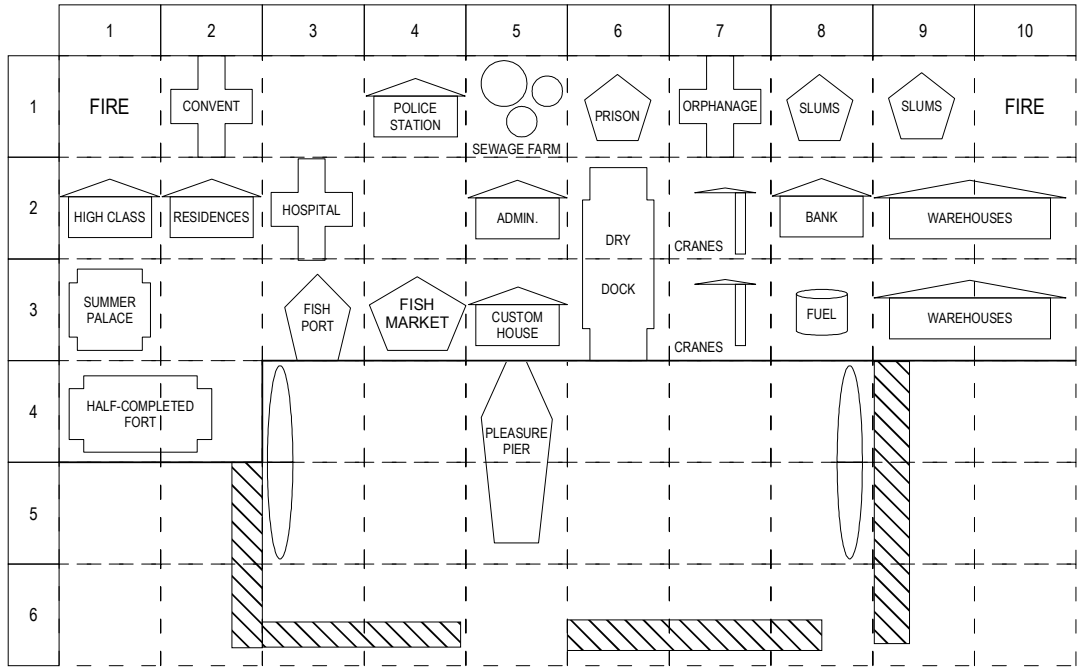
Structure:

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

FIRE	FIRE	FIRE	EXP
1	2	3	!!!

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Bombardment Target #1 (Commerce Raid)



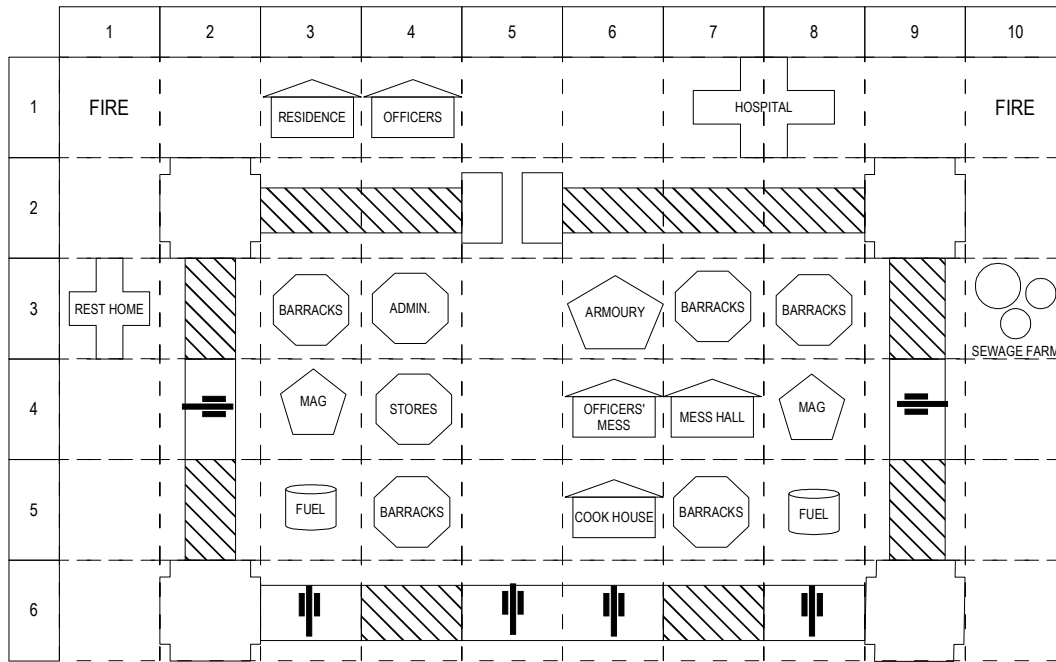
SHORE TARGETS DO NOT BENEFIT FROM BOW OR STERN RAKE MODIFIERS

500 POINTS PER TARGET BOX 	1000 POINTS PER TARGET BOX 	2000 POINTS PER TARGET BOX 	-1000 FOR THE FIRST BOX HIT -2000 FOR THE SECOND -4000 FOR THE THIRD
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Structure: 40|39|38|37|36|35|34|33|32|31|30|29|28|27|26|25|24|23|22|21|20|19|18|17|16|15|14|13|12|11|10|9|8|7|6|5|4|3|2|1

FIRE	FIRE	FIRE	EXP
1	2	3	!!!

Bombardment Target #2 (Shore Bombardment)



SHORE TARGETS DO NOT BENEFIT FROM BOW OR STERN RAKE MODIFIERS

<p>500 POINTS PER TARGET</p>	<p>1000 POINTS PER TARGET</p>	<p>2000 POINTS PER TARGET</p>	<p>-1000 FOR THE FIRST BOX HIT -2000 FOR THE SECOND -4000 FOR THE THIRD</p>
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Structure: 40|39|38|37|36|35|34|33|32|31|30|29|28|27|26|25|24|23|22|21|20|19|18|17|16|15|14|13|12|11|10|9|8|7|6|5|4|3|2|1

FIRE	FIRE	FIRE	EXP
1	2	3	!!!