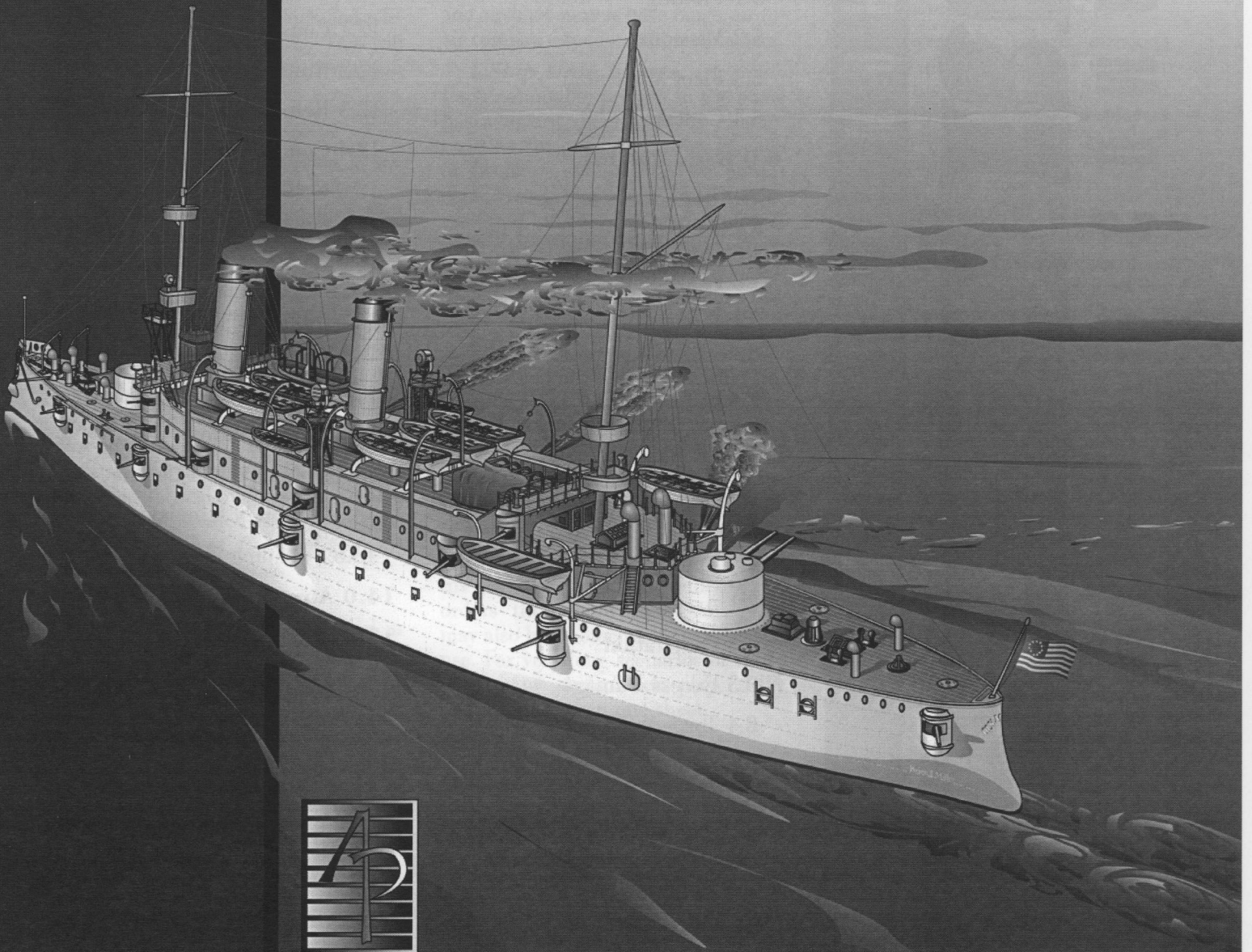


**THE GREAT
WAR AT SEA**

SERIES RULES



PUBLISHED BY AVALANCHE PRESS, LTD.

Copyright © 2000 Avalanche Press, Ltd.

NAVAL COMBAT SHIP RULES IN THE FIRST WORLD WAR

Index

1.0 Introduction

2.0 Component

3.0 Prepare for Play

4.0 Sequence of Play

4.1 Weather Phase

4.2 Orders Phase

4.3 Move Fleets Phase

4.4 Check for Contact

4.5 Tactical Phase

5.0 Movement

5.1 Plotting

5.2 Missions

5.3 Fleet Movement

5.4 Contact

6.0 Basic Combat

7.0 Advanced Combat

7.1 Tactical Sequence of Play

7.2 Placement

7.3 Tactical Movement
and Combat

7.4 Land

7.5 Gunnery Combat

7.6 Range

7.7 Torpedo Combat

8.0 Damage

8.1 Armor

8.2 Penetration

8.3 Excess Damage

8.4 Torpedo Mounts

8.5 Dead in the Water

8.6 Referred Pain

8.7 Critical Damage

8.8 Plunging Fire

9.0 Multiple-Ship Counters

10.0 Merchant Shipping

11.0 Special Rules

11.1 Shore Bombardment

11.2 Towing and Repair

11.3 Ports

11.4 Night

11.5 Unloading

11.6 National Cooperation

11.7 Weather

Advanced Rules

12.0 Fuel and Endurance

12.1 Consumption

12.2 Running Out of Fuel

12.3 Refueling

12.4 Combat Restrictions

12.5 Colliers

12.6 Oilers

12.7 Re-Arming

13.0 Mine Warfare

13.1 Minefield Location

13.2 Entering a Minefield

13.3 Laying Mines

13.4 Minelayers in Combat

13.5 Auxiliary Minelayers

13.6 Sweeping Mines

14.0 Aircraft

15.0 Submarines

16.0 Leaders

17.0 Airships

18.0 Motor Torpedo Boats

19.0 Optional Rules

19.1 Tactical Set Up

19.2 Secondary Penetration

19.3 Separation

1.0 Introduction

THE GREAT WAR AT SEA is a series of games based on naval conflict during the early 20th Century. Each game in the series contains many separate game situations, or scenarios, in which players take the role of the opposing commanders.

Each section of the rules is numbered, and a second number identifies paragraphs within each section that discuss important concepts, like this: 2.2. When that section contains subsections, these are identified like this: 2.23.

When the rules refer to another, related paragraph, they will have the number identifying that rule included parenthetically, like this: (2.2). This will help you find that rule for comparison or reference.

2.0 Components

The components are described in the Scenario Booklet. You will need to furnish at least two six-sided dice (and preferably eight or ten).

2.1 Maps.

The Operational Map is divided into sea zones, which define ships' positions like squares on a chessboard, at a scale of 32 statute miles across each zone. This map is used to regulate fleet movement. Fleets may not move through sea zone sides consisting entirely of land or marked with a black line. The Tactical Map, used to resolve combat, is divided into hexagons (called "hexes") at a scale of approximately 8,000 yards across.

2.2 Charts and Tables.

Several charts and tables are used in the play of the game. These include:

- *Gunnery Damage Table.* Used to determine the effects of gunnery hits (6.1; 7.5).
- *Torpedo Damage Table.* Used to determine the effects of torpedo hits (7.7).
- *Critical Damage Table.* Consulted if the Gunnery or Torpedo Damage Table directs "Critical Damage."
- *Minefield and Mine Damage Tables.* Used to determine the effect

of striking a mine (13.0).

- *Weather Track.* Used to track the current weather.

- *Fleet Composition Cards.* Used to apportion ships among the fleets.

2.3 Counters.

The die-cut cardboard playing pieces included in the game represent individual ships, groups of small ships or fleets of ships. Other counters represent aircraft or airships. See the diagrams explaining the counters and the information they contain. Small ship counters have only tertiary gunnery factors; large ship counters have primary, secondary and tertiary gunnery factors (in that order). Some aircraft and airship counters have range, air-to-air combat, torpedo and bomb factors.

2.4 Ship Data Sheets.

Each nationality present in the game has a record sheet with the characteristics, for game purposes, of each of its ships. These may be photocopied for repeated use. Not all ships are used in every scenario; players may wish to circle those ships which are available or cross out those which are not. See the "Sample Record" for an explanation.

2.5 Fleet Composition Boxes.

At various times each player will form fleets of ships. The fleet counters are used on the operational map; the ships making up each fleet are placed in the appropriate fleet boxes on his Fleet Composition card.

2.6 Log Sheet.

Each player has a log sheet to record his or her fleets' movement and orders throughout the game. This may also be photocopied for repeated use. For very long scenarios or those with many ships, each player may require more than one sheet.

3.0 Prepare for Play

First, select a scenario from the scenario book. Players may wish to begin with one of the battle scenarios. One player takes the role of the Allied commander and directs all Allied units listed in the scenario instructions. His or her opponent is the Central Powers player and directs

all Central Powers units listed in the scenario instructions.

Place the Ship Data Sheets, Log Sheets and Fleet Composition cards out of view of the opposing player, who may not examine them. Place the ship counters in the boxes corresponding to their fleet assignments. Players may place ships that start in the same location in more than one fleet box. Only the fleet counters (small half-inch counters) are placed on the operational map (numbered side down).

Players must agree before play begins whether they will use the basic combat procedure (6.0) or the more involved tactical rules (7.0).

Each player now selects missions (5.2) and plots movement (5.1) for each of his or her fleets. Mission orders may be aborted, so players may wish to write orders in pencil and keep an eraser handy.

4.0 Sequence of Play

Each game turn represents four hours of actual time, and is divided into phases. Shaded turns on the Log Sheet are night turns, when it is more difficult to contact enemy fleets and sight enemy ships in battle. Both players are active in each phase; there is no "Allied turn" or "Central Powers turn." Play proceeds as follows:

4.1 Weather Phase.

At the start of each turn, the Central Powers player rolls one die for each weather zone (11.72) and applies the result.

4.2 Orders Phase.

Each player writes down the orders he or she wishes each of his or her fleets to execute as required by their mission (5.2). For example, during this phase for turn 5 for a fleet with an intercept or raiding mission you should be writing orders for turn 7. In the advanced game, each player must also check his or her ships' remaining fuel (12.0). Note that many missions (5.2) require that all movement be plotted at the start of the scenario.

4.3 Move Fleets Phase.

Each player moves his or her fleets to

new sea zones corresponding to their orders for this turn. As this movement is already recorded, it may be carried out simultaneously.

4.4 Check for Contact.

If two or more opposing fleets remain in, move into or pass through the same sea zone or sea zone side there is a chance that contact (5.4) will occur between them.

4.5 Tactical Phase.

If contact is made, play moves to either the tactical map (7.0) or to the basic combat procedure (6.0).

4.6 Conclusion.

After all battles have been resolved, the turn is complete and play resumes with the Weather Phase of the next turn.

5.0 Movement

Movement on the operational map is performed by fleets, which represent groups of ships. Individual ship counters are never placed on the operational map, though a fleet could consist of one ship.

5.1 Plotting.

To represent the time lag between reports of enemy ship positions and reaction to them, as well as the control and planning problems of directing ships across large stretches of open water, fleets must have their orders written on the Log Sheets. In the space for each turn on the Log Sheet the player writes the sea zone he wishes the fleet to enter during that turn.

5.11 Fast and Slow Ships. Some faster ships will be able to enter more than one sea zone during a turn. These ships have a movement allowance of "2" or "2+" on their counters. Fleets consisting entirely of ships with movement allowances of "2" or "2+" may enter one or two sea zones each turn. Simply write in the first sea zone to be entered, a slash mark (/) and then the second sea zone to be entered. Fleets need not move at all, but may remain in the same sea zone if their owner so desires. Slow ships (a circled "1" on the counter; "1s" on the ship data

sheet) move one sea zone per turn just like those with a speed of 1, but only move during the "move all groups" segments of the tactical sequence (7.31) and are considered slower than ships with a speed of 1 when using the basic combat procedure (6.2). Note: The terms "movement" and "speed" are used interchangeably in these rules.

Example: The Central Powers player wishes Fleet 1 to proceed northeast from Danzig at top speed toward Windau. Fleet 1 consists of the *Rostock* and *Frankfurt*, both of which have movement allowances of "2." In the turn one section, he writes "Q 31/R 32," in the turn two section he writes "O 32/N 32," and so on.

The Allied player wants Fleet 4 to sail from Dover to Harwich. Since Fleet 4 consists of the *Canada* and *Superb*, both of which have movement allowances of "1," he writes "V 8" in the turn one section, "U 7" in the second section and so on.

Note that the Central Powers player did not have to order Fleet 1 to move two sea zones; he could have ordered it to move one zone or none at all if he so desired.

5.12 Pre-plotted Movement. For each fleet that is assigned a transport, bombardment, minelaying or minesweeping mission, (see below) all movement is plotted before the start of the game or at least up to the point where the fleet completes six turns in a friendly port (5.22).

5.2 Missions.

At the beginning of each scenario a player's ships are divided into fleets, and each fleet is given a specific mission. Only ships of the same nationality may be placed in a fleet unless the fleet containing them totals four ships or less or scenario instructions state otherwise. German ships may be treated as ships of any nationality; Canadian and Australian ships are treated as British.

The mission selected limits the orders that may be written for the fleet and how it interacts with other

Ship Types

Warships:

Capital ships:

AC	Armored Cruiser
AMC	Armed Merchant Cruiser
B	Pre-dreadnought battleship
BB	Dreadnought battleship
BC/CC	Battlecruiser
BCV	Battlecruiser-carrier
CA	Heavy cruiser
CD	Coast defense ship
CV	Aircraft carrier
CVS	Seaplane carrier
IC	Ironclad

Light ships:

AR	Armored Ram
AY	Armed Yacht
C	Cruiser
CL	Light cruiser
CS	Scout cruiser
DC	Dynamite Cruiser
DD	Destroyer
DL	Destroyer leader
GB	Gunboat
ML	Minelayer
MS	Minesweeper
PC	Protected Cruiser
RC	Revenue Cutter
SL	Sloop
TB	Torpedo boat

Other types (including Russian landing ships, despite their armament) are not warships. Colliers, oilers and auxiliary minelayers are represented by transport counters and are treated as warships for mission eligibility.

fleets. In addition, certain ship types are limited in the missions they may perform.

Missions are limited to the following:

- *Transport.* Only ships with a transport mission may load and unload cargo (11.5). No limitation on ship types.

- *Bombardment.* Ships in the fleet have their gunnery halved (round down by type) in the first combat step in which they fire at an enemy ship. Limited to warships and colliers/oilers. Ships assigned this mission may conduct shore bombardment (11.1).

- *Escort.* A fleet plotted to accompany another fleet. The escorting fleet must conform to the movement of the fleet being escorted. Its fleet counter is placed in the fleet box of the fleet being escorted, and treated as part of the same fleet for contact (5.4) purposes. If the fleet being escorted goes to the tactical map or to the basic combat procedure, so does the escorting fleet. The escorting fleet is set up on the tactical map in hexes adjacent to the fleet it is escorting. During advanced tactical combat the escorting fleet may separate from the fleet it is escorting (to better protect the escorted fleet). If this occurs, the escorting fleet must rejoin the fleet it was escorting as soon as possible subsequent to combat, or be assigned an abort mission. Escort fleet movement is plotted as "escort" with the fleet it is escorting noted. Limited to warships and colliers/oilers.

- *Intercept.* Movement is plotted two turns in advance for a fleet ordered to perform this mission. Limited to warships and colliers/oilers.

- *Abort.* A fleet may not start a scenario with an Abort mission, unless specifically stated in the scenario instructions. During the orders phase, the owning player may change any mission type to an abort mission. To do so, change the movement plot two turns ahead (plotting movement for all remaining turns) for the fleet changing to the abort mission. The abort mission fleet must have all its movement plotted for the remainder

of the scenario or up to the point where it completes six consecutive turns in port, and its movement must take it to a friendly port by the shortest method and at the fastest speed possible (without running out of fuel). No bombardments may be conducted. Note that fleets involved in combat may change to an abort mission following combat (see 7.37); in this case their orders are changed immediately following the conclusion of combat.

Example: On Turn 10 the Central Powers player decides to abort his Fleet 3's bombardment mission. He writes "abort" in the space for Turn 12 and plots movement for Fleet 3 for turn 12 and all the following turns until the fleet has spent six turns in a home port.

- *Minelaying.* A fleet must have a minelaying or a raid mission in order for its ships to sow minefields (13.3). Limited to minelayers (ML) plus any other ships specified in the scenario instructions.

- *Minesweeping.* A fleet must have a minesweeping mission in order for its ships to detect and remove minefields (13.6). Limited to minesweepers (MS) plus any other ships specified in the scenario instructions. A fleet with a minesweeping mission may remain in a zone to detect and sweep mines, thus delaying but not changing its pre-plotted movement.

- *Raid.* Movement is plotted two turns in advance for a fleet ordered to perform this mission. A raiding fleet may bombard (11.1) and search for enemy merchant ships (10.2). Minelayers and other ships acting as minelayers (per the scenario instructions) may lay minefields if part of a raiding fleet. Unless scenario instructions specify otherwise, a player may assign a raiding mission to no more than one fleet, which must include a leader and may contain no more than two ships (not counters). Limited to warships and colliers.

A player may remove a raiding fleet's counter from the operational map after it moves (so that its future

movement is hidden from enemy view) but must return it to the map if it bombards (11.1), sinks (not merely searches unsuccessfully for) an enemy merchant ship (10.2), enters a port or occupies the same sea zone as an enemy fleet counter, airship, or airplane. He or she may remove it from the map again two turns afterwards provided none of these conditions apply. A player may always choose to keep a raiding fleet's counter on the map (and must do so if he or she wishes to search for enemy fleets) and may remove the counter at any time if the conditions for removal are met.

Note that raiding fleets of both sides may occupy the same sea zone with neither player being aware (if a player wants to look for the enemy raiders with a raiding fleet, he or she must place the fleet counter on the map).

5.21 Combining Fleets. Fleets with the same type of mission may be combined into one during the Orders Phase if they occupy the same sea zone. Remove one of the fleet counters and use the movement orders already plotted for the fleet counter still in play. Any fleet may combine with an Abort mission fleet. Remove the other fleet's counter and use the movement orders already plotted for the fleet counter with an abort mission. Escort fleets are not considered to be combined with the fleet they are escorting.

5.22 New Mission. A fleet that spends six consecutive turns in a friendly port may be given a new mission.

5.23 Pursuit. Fleets with intercept or raid missions which engage in combat may attempt to pursue the enemy fleet if it left the tactical map or if combat ended with both fleets out of sighting range (7.27) (or after any battle when using the basic combat procedure). Write "Pursue" in the appropriate slot on the log sheet for the next two turns in place of the former orders. During the Orders phase of each turn, the pursuing player rolls one die. Add two to the result during daylight turns, and add one in addition if all ships in the pursuing

fleet are faster than the slowest ship in the fleet being pursued. If the die roll is 6 or greater the fleet is moved together with the enemy fleet, and contact is made in the new sea zone. If the pursuit is unsuccessful, then the pursuing fleet must remain in that sea zone for one turn and new orders are written for the two following turns.

5.24 New Fleets. During the Orders phase, either player may divide fleets with raid or intercept missions into smaller fleets. Enter "Divide" on the Log Sheet for that turn, and on that turn place a new fleet marker, if available, on the Operational Map in the sea zone where the original fleet divided and re-arrange the ship counters on the Fleet Composition card. The new fleet has the same mission as the original fleet.

If a dividing fleet contains ships with a speed of 1 Slow, 1 or 1+, the fleets may not move on the turn the fleet is divided. If all ships in a dividing fleet have a speed of 2 or 2+, the fleet(s) may move one sea zone before or after dividing. This must be noted on the Log Sheet.

5.25 Limits. Unless the scenario instructions state otherwise, players may form any number of fleets up to the number of fleet counters provided in the game. They may be assigned to any mission (though only one per scenario may be assigned a raid mission, unless the scenario instructions state otherwise).

5.3 Fleet Movement.

In the Move Fleets phase each player moves his or her fleets on the operational map to the locations specified on the Log Sheet. Since this is considered to take place simultaneously, players may move their fleets in whatever order they choose.

5.4 Contact.

When two opposing fleets remain in, move into or pass through the same sea zone, there is a possibility that contact will occur. If two opposing fleets remain in, move into the same sea zone, or enter one another's sea zone simultaneously, the Central

Powers player rolls one die to determine if contact is made. Contact is made on a die roll of 4 or greater during a Day turn and on a 6 or greater during a Night turn. When contact is made, battle is then resolved using either the basic combat (6.0) or advanced tactical (7.0) rules.

5.41 Surprise Sighting. An unmodified result of "6" is always contact, regardless of the modifiers and is always a Surprise Sighting (7.28).

5.42 Automatic Contact. Contact always occurs between a fleet plotted to bombard or unload cargo in the same zone that an opposing fleet occupies or enters (even a raiding fleet, 5.49). Contact always occurs if one fleet is in a minor port and an enemy fleet enters the port.

5.43 Early Contact. If a fleet has passed through the sea zone in which contact is made, return it to the zone. The additional plotted movement is not completed this turn. The movement plot is delayed, but not changed.

5.44 Multiple Zones. If a fleet could make contact in more than one zone, check first for contact in the first zone it entered. If no contact is made, check again for the second zone. If two opposing fleets are plotted to enter each other's sea zone, check for contact in both sea zones (Allied player's choice of order); if contact is made in the first sea zone do not check for contact again in the second.

Example: Central Powers Fleet 1 is plotted to move two zones, from M69 through L69 to K70. Allied Fleet 2 is plotted to move two zones as well, from M70 through L69 to K69. The Central Powers player must roll the die to see if contact is made in sea zone L69, through which both fleets passed this turn, even though neither now occupies it.

5.45 Weather. Add or subtract from the contact die roll for the following weather conditions:

- Gale: -2
- Storm or Squall: -1
- Clear: +1

5.46 Additional Modifiers. Before the Central Powers player rolls the die, either player may declare which, if any, of the following die roll modifiers apply. A player is never required to reveal this information, but must do so for the modifier to be applied to the die roll.

- Leader present: +1
- Fleet contains over 20 ships: +1
- Fleet contains only armed yachts, destroyers and/or torpedo boats: -1
- Fleet has intercept mission: +2
- Fleet has raid mission: +1 or -1 (owning player's choice)
- Airship present in sea zone: +2

5.47 Multiple Fleets. Resolve all contact possibilities before any battles are resolved. More than one fleet from the same side may as a result be involved in the same battle.

5.48 Roving Fleets. If a fleet leaves a sea zone as a result of combat (7.33) it is involved in no further contact attempts during the current turn.

5.49 Raiding Fleets. Contact is not checked for a Raiding fleet unless the fleet counter is on the map.

6.0 Basic Combat

As an introduction to THE GREAT WAR AT SEA, or for a quicker game, players may wish to use these basic combat rules. After mastering them, players will probably wish to move on to the more involved Advanced Tactical Rules.

6.1 Gunnery Combat.

Gunnery combat takes place at either short or long range, over a number of rounds. The first round of combat is always fought at long range. All ships are at the same range: a player may not have some ships at long range and some ships at close range in the same combat round.

Gunnery combat takes effect simultaneously. The Central Powers player first announces which of his ships will attack which enemy ship. Not all enemy ships need be attacked; all of a player's ships could attack one enemy, though they may only attack

once per round. Tertiary guns may not fire at long range.

Once the Central Powers player has chosen targets, he or she resolves the attacks. He or she rolls one die for each primary gunnery factor, then one for each secondary gunnery factor and one for each tertiary gunnery factor. On a roll of 6 (5 or 6 for ships with italicized names on the Ship Data Sheet) a hit is achieved. Roll two dice for each hit and consult the Gunnery Damage Table.

6.2 Subsequent Rounds.

After the first round of combat either or both players may elect to attempt to close the range - and in later rounds may attempt to move back to long range. If both players desire to alter the range, the range is altered automatically. If neither wishes to alter the range, it remains the same. If one player wishes to alter the range and the other does not, the player with the faster fleet is allowed to determine the range. A player has the faster fleet if the slowest ship in his or her fleet is faster than the slowest ship in the enemy fleet. There are four speeds: 2+, 2, 1 and 1 Slow. Players may not split their fleets during battle. If neither player has a faster fleet, each player rolls one die and the player achieving the higher result determines the range for this round. Roll again if a tie results.

At the end of a round of combat either player may attempt to disengage. Players may only disengage when at long range. The procedure to disengage is the same as for changing the range in combat, except that instead of moving the battle range the player is attempting to remove his ships from the fighting altogether.

A player with a ship that is dead in the water may not attempt to change the range or to disengage. But see rule 8.5; he or she may scuttle the ship and then attempt to disengage.

6.3 Short Range Combat.

Short range gunnery combat is resolved exactly as long range combat, except that one is added to each gunnery die roll.

6.4 Night Action.

No long-range combat is allowed during night turns. If fleets make contact during a night turn, either or both players may attempt to close to short range. Ships firing during night combat subtract 1 from their die rolls. There is no penalty for torpedo attacks.

6.5 Torpedo Combat.

When battle is at short range, ships may use torpedoes as well as gunfire. Use the Advanced Combat torpedo procedure (7.7).

7.0 Advanced Combat

Advanced Combat is resolved on the tactical map after contact has been made.

7.1 Tactical Sequence of Play.

The following sequence is used to conduct combat:

A. Players determine which side has the initiative. This determination will be used for set-up and the first round of combat (a round is a sequence of 20 impulses or steps). The Allied player rolls one die. On a result of 3 or less the Central Powers player has the initiative; on a result of 4 or more the Allied player has the initiative. The result may be modified by leaders (16.2) and multiple nationalities (11.6). Roll for initiative again on step one of each following round.

B. The player without the initiative sets up his ships in the center of the tactical map (7.21).

C. The player with the initiative sets up his ships beginning on numbered hexes along one of the sides of the tactical map (7.22).

D. Players move and conduct combat as directed by the Impulse Sequence (7.31).

7.2 Placement.

No more than eight ships of the same side may occupy the same hex on the tactical map. No less than four ships may be placed in a hex unless the player has less than four ships in his fleet, in which case they must all be placed in the same hex (exception: multiple nationalities, see 7.26). Count multiple-ship counters (9.0) as one

ship each for placement.

7.21 Fog of War. All ships are initially placed face-down.

7.22 Fleet Organization. Ships from the same fleet must be placed in the same hex or a series of adjacent hexes with at least four ships in each hex (thus, if the total number of ships in the fleet is less than eight, all must be placed in the same hex).

7.23 Non-Initiative Placement.

The player without the initiative must place a total of eight ships in one or two adjacent shaded center hexes before he or she may place any ships in hexes outside the shaded center hexes. If he or she has more than eight ships, additional ships may be placed in any hexes that are adjacent to any ships that have been previously placed, as long as no ships are placed closer to the numbered hexes on the map side from which the initiative player's ships will enter than the current sighting range (four hexes during daylight and two at night, modified by weather conditions). All ships must be placed as close as possible to the numbered hexes on the map side from which the initiative player's ships will enter.

7.24 Initiative Placement. The initiative player then places his or her ships, starting in the numbered hexes along the side of the tactical map corresponding to the sea zone from which his or her fleet entered the sea zone in which contact was made. If the initiative player's fleet did not move during the turn, it may enter the tactical map from any side the initiative player chooses. He or she must place a total of eight ships in one or two adjacent numbered hexes before he or she may place any ships in hexes outside the numbered hexes. If he or she has more than eight ships, additional ships may be placed in any hexes that are adjacent to any ships that have been previously placed, as long as no ships are placed closer to enemy ships than the current sighting range (four hexes during daylight and two at night, modified by weather conditions).

Example: The Central Powers player has the initiative. His fleet entered sea zone F33, where contact was made with an Allied fleet. The Central Powers fleet entered from sea zone F32, therefore it enters the tactical map on the left side.

7.25 Raider Placement. Ships from a raiding fleet may be placed in adjacent hexes, but any number up to eight may be placed in the same hex (thus, a raiding fleet of two ships could set up with one ship each in two separate hexes).

7.26 Nationality. Only ships of the same nationality may be placed in the same hex unless the fleet containing them totals four ships or less. German ships may be treated as ships of any nationality. Canadian and Australian ships are treated as British ships.

Example: An Allied fleet of seven Italian, one British and one French ship is deploying for battle. The Allied player must place the seven Italian ships in one hex, the British ship in a second hex and the French ship in a third hex.

7.27 Sighting Range. Sighting ranges are four hexes in daylight and two hexes at night. When determining ranges, count the hex occupied by the enemy ship, but not the hex occupied by the ship being placed. Ships are placed face-down when at maximum spotting range from any enemy ship. Ships at less than the maximum spotting range are placed face-up.

7.28 Surprise Sighting. On an unmodified result of "6" when consulting the search table during a daylight turn, the initiative player must place his or her ships one hex closer to the center of the tactical map. On an unmodified result of "6" when consulting the search table during a night turn, the initiative player must place his or her ships two hexes closer to the center of the tactical map. Ships of opposing sides may not begin in the same hex, but may be placed in adjacent hexes.

7.29 Multiple Fleets. If a player has

ships from more than one fleet involved in the same battle, ships may not be placed in groups with ships from a different fleet. After the battle, fleets with like missions that do not leave the tactical map may exchange ships (the only time this is allowed).

7.3 Tactical Movement and Combat.

All of a player's ships of the same classification (capital ship, light ship, or other) in a hex form a group. Just as on the operational map, movement is conducted at the speed of the slowest ship in the group. A group may not "split up," but may combine with another group provided the total number of ships remains eight or less. A player may choose to combine ships of different classifications into one group, but is not required to do so.

7.31 Sequence. Movement and combat are conducted in the order described in the Impulse Sequence:

Impulse Sequence

1. Determine which player has the initiative (during the second and subsequent rounds; for the first round, initiative is determined before ships are placed on the tactical map).
2. The initiative player moves all his groups with a speed of 2+.
3. Both players conduct gunnery combat.
4. Both players conduct torpedo combat.
5. The player without the initiative moves all his groups with speed of 2+.
6. The initiative player moves all his groups with a speed of 2 or 2+.
7. Both players conduct gunnery combat.
8. Both players conduct torpedo combat.
9. The player without the initiative moves all his groups with speed of 2 or 2+.
10. The initiative player moves all his groups with a speed of 1, 2 or 2+ (all ships except those rated 1 slow).
11. Both players conduct gunnery combat.

12. Both players conduct torpedo combat.

13. The player without the initiative moves all his groups with a speed of 1, 2 or 2+ (all ships except those rated 1 slow).

14. The initiative player moves all his groups.

15. Both players conduct gunnery combat.

16. Both players conduct torpedo combat.

17. The player without the initiative moves all his groups.

18. The initiative player moves all his groups.

19. Both players conduct gunnery combat.

20. Both players conduct torpedo combat.

7.32 Movement. When a group is allowed to move, it may remain in its current hex or move one hex in any direction provided that the maximum number of friendly ships in the hex (8) is not exceeded at the conclusion of movement. Movement is not mandatory. Ships may enter a hex occupied by enemy ships as long as no more than 8 ships of the same side (up to 16 total) occupy the same hex.

7.33 Exiting the Map. Ships that leave the shaded ring of hexes (that contains numbered hexes) while outside sighting range of enemy ships have exited the tactical map and may not re-enter it during the same tactical phase. They are returned to their boxes on the Fleet Composition card and their fleet marker is moved to the sea zone into which they exited. If ships exit the tactical map while within sighting range of enemy ships, move all ships back from the map edge an adequate number of hexes to keep all ships in the playing area and in the same positions relative to one another. Note that ships may not move outside the shaded ring of hexes (that contains numbered hexes) on a side of the map that is blocked by land (7.41).

Example: During battle with a French

fleet in sea zone N 37, the Austrian battleships *Viribus Unitus* and *Tegetthoff* exit the upper left (northwest) side of the tactical map. They are placed in a fleet in sea zone M 37 (the sea zone to the northwest of the battle location).

7.34 Towing. Ships towing or being towed (11.2) may only move on the player's final movement step (#17 or 18) of each round (though the towing ship may break the tow).

7.35 Crippled Ships. During tactical combat, a player may separate an individual ship counter from a group once the ship counter has lost at least half its largest type of guns or half its hull boxes, or if it has suffered a reduction in speed.

7.36 Concluding the Tactical Phase. The tactical phase is concluded when all ships of one side have either exited the tactical map, are outside the sighting range of all enemy ships or have been sunk. If ships of both sides remain on the tactical map and can spot one another at the conclusion of step 20 above, begin the sequence again with step 1 (determining initiative).

7.37 Orders. Following the conclusion of combat, each player corrects movement orders for fleets that had their plots altered by contact (5.41) or exiting the tactical map (7.33). Fleets may continue their mission or be given an abort mission. Note that ships that left the map will now occupy different sea zones.

7.38 Long Battles. If combat enters a second round, all fleets involved move one less sea zone during the next turn than plotted, except that a fleet of ships with speeds of 1 Slow or greater may always move one sea zone. Adjust the log sheet accordingly. The route taken may not be changed - all orders are re-written to reflect only the loss of time, not a new route, destination or mission.

Example: *Sterneck*, alone in Central Powers Fleet One engages *Inflexible* during Turn Two in sea zone U37. *Sterneck* eventually sinks *Inflexible*, though the battle extends once through the impulse sequence and

halfway through another round before the British ship goes under. *Sterneck* was plotted to move two zones on Turn Three, from V36 to W36, and on Turn Four from X35 to Y35. She may only move to V36 on Turn Three, then on Turn Four from W36 to X35, and so on.

7.39 Fuel Cost. At the conclusion of combat, each player rolls one die for each of his or her fleets that participated. The result is the fraction of a fuel box expended in addition to any fuel expended in the plotted move (a "3" would be 3/12ths of a box of fuel).

7.4 Land.

Many sea zones contain land in the form of islands or coastlines.

7.41 Tactical Movement. If a sea zone side is all land on the operational map, players may not move their ships outside the shaded ring of hexes (that contains numbered hexes) on the corresponding tactical map side. They may move ships into these shaded hexes without checking for grounding (7.42). If an island (that is contained in one sea zone) exists in the contested sea zone, treat the seven center shaded hexes as land (the player without the initiative sets up his ships adjacent to the center hex closest to the map side from which the initiative player's ships will enter play; note that this may decrease the initial distance between opposing fleets). Ships may not enter land hexes.

7.42 Grounding. If a ship enters a hex adjacent to a land hex it can run aground. Roll one die for each ship. On a result of 6 or greater the ship is grounded and cannot move. Subtract one from the die roll if the land is in the ship's home country (for example, German ships along a German coastline) and add one for capital ships.

Shallow-Draft capital ships (with a half-white/half-red circle on their counter) suffer no die roll penalty when checking for grounding. Shallow-Draft light ships never run aground.

7.43 Refloating. Ships that run aground may be refloated. The owning player rolls one die for each such

ship during the Weather Phase. On a result of 1 the ship is freed. Once freed the owning player rolls the die again to determine the extent of the damage to the ship resulting from the grounding. One-half the result (round any fractions up) is the number of hull boxes destroyed. Add one to the die roll if the ship has no hull armor.

7.44 Intentional Grounding. A player may move ships into a land hex in order to intentionally run them hard aground. The player simply declares the ship hard aground (sea captains of this era were very, very good at running their ships aground). Ships that are hard aground cannot be freed. Shallow-draft ships may be intentionally grounded. Ships aground at the end of a scenario count as sunk. If aground in an enemy-controlled sea zone, the ship counts double the victory points for sinking her. If aground in a friendly-controlled coastal sea zone the enemy only collects 75% of the ship's victory points.

7.5 Gunnery Combat.

During gunnery combat, a ship may attack any enemy ships which are in range (7.6) and sighted (7.27; at night or in some weather conditions an enemy ship could be in range, but not be visible - thus, primary guns may not be fired during a night turn at a target three hexes away). Gunnery results take effect simultaneously. The initiative player first announces which of his ships will attack which enemy ship. Not all enemy ships need be attacked; all of a player's ships could attack one enemy though they may only attack once per gunnery combat step. An individual ship may only fire on one target; it may not "split" its firepower to attack multiple targets.

Once the initiative player has chosen targets, he or she resolves the attacks for each ship. Roll one die for each primary gunnery factor, then one for each secondary gunnery factor and one for each tertiary gunnery factor. A hit is scored on a result of 6 or more, with the following modifiers applied to the die roll:

- +1 if the ship's name is italicized on the Ship Data Sheet.
- +1 if firing into the same or an adjacent hex.
- +1 if the target ship is dead in the water.
- +1 if the target ship is towing or being towed (11.2).

Roll two dice for each hit and consult the Gunnery Damage Table to determine the effect.

Example: Viribus Unitus and Prinz Eugen enter combat with Courbet and Jean Bart. The Central Powers player has the initiative and when the ships come within three hexes decides Viribus Unitus will fire on Courbet and Prinz Eugen will fire on Jean Bart. The Central Powers player rolls 8 dice for Viribus Unitus' primary battery, resulting in two 1's, one 2, two 3's, one 4 and two 6's. Viribus Unitus has scored 2 hits.

Once the initiative player has completed his gunnery, his or her opponent repeats the procedure. As gunnery results take effect simultaneously, any damage (8.0) caused during the initiative player's gunnery does not alter non-initiative abilities until the start of the subsequent torpedo combat step.

Example: Courbet receives a primary hit during the first gunnery combat step with Viribus Unitus. The hit is marked on the Ship Data Sheet, but Courbet may still fire with all eight of her primary factors during this step. During the next step, however, she is reduced to seven primary factors.

7.6 Range.

- **Primary.** Primary guns may fire at targets up to three hexes away (count the hex occupied by the target, but not the hex occupied by the firing ship). Primary guns will damage any area of an enemy ship they hit.
- **Secondary.** Secondary guns may fire at targets up to two hexes away (count the hex occupied by the target, but not the hex occupied by the firing ship). Secondary guns will damage any area of an enemy ship unless it is protected by heavy armor.

- **Tertiary.** Tertiary guns may fire at targets in an adjacent or the same hex only. Tertiary guns will only damage areas of an enemy ship without armor.

7.61 Very Large Guns. Warships (not including French ships) with a primary gunnery factor of 11 or more, and the British battle cruiser *Furious*, have 16" guns (18" guns in the case of *Furious*) and may fire at a range of four hexes on the tactical map. When firing at four hexes, primary gunnery factors are halved (round any fractions up).

7.62 Obsolete Warships. Pre-dreadnought battleships (B), coast defense ships (CD) and armored cruisers (AC/CA) usually lacked modern fire control equipment and high-elevation guns. These ships have a maximum range of two hexes for their primary guns with the exception of the German AC01 *Blücher*, AC13 *Scharnhorst* and AC14 *Gneisenau*, the Russian AC01 *Rurik*, and all Russian pre-dreadnoughts in scenarios taking place in 1917.

7.7 Torpedo Combat.

During a torpedo combat step, ships with torpedo tubes may fire torpedoes at enemy ships in the same or an adjacent hex. The torpedo and gunnery steps are resolved separately; thus, a ship which had its torpedo mount destroyed by gunfire may not fire torpedoes in the subsequent torpedo combat step.

7.71 Procedure. Roll a number of dice equal to the firing ship's torpedo factor (as with gunfire, all torpedoes fired from a single ship must be fired at the same target). A hit is scored on a result of 6 or more, with the following modifiers applied to the die roll:

All modifiers are cumulative.

- +1 if the target is a capital ship or an F-numbered transport.
- +1 if the target is dead in the water.
- +1 if the target ship is towing or being towed (11.2).
- +1 if the target is in the same hex as the firing ship.

- -1 if the firing ship is a capital ship.

- -1 if the torpedoes are fired from a hull mount (within a box on the Ship Data Sheet. Note that most battleships will suffer a -2 modifier to the die roll).

Roll two dice and consult the Torpedo Damage Table to determine the effect of each torpedo hit.

Example: A Russian Bespokoiny-class destroyer attacks the Goeben with torpedoes at a range of 1 hex. The Allied player rolls 3 dice, rolling a 6, a 4 and a 1. Goeben has her full movement factor but is a large target, so the Allied player adds one to each die roll. He has scored 1 hit and consults the Torpedo Damage Table. He rolls 2 dice, obtaining a 6 for one hull hit. The Central Powers player marks off one hull box on Goeben.

7.72 Movement. A ship that has lost all of its movement factors may not make a torpedo attack.

7.73 Reloads. A ship may only make one torpedo attack during the game unless it rearms (12.7). Once it has used its torpedo factors, mark this on the hit record sheet. A ship with more than one torpedo factor may not "save" some for later use.

7.74 Destroyed Torpedoes. A ship may not make a torpedo attack if its torpedo mount has been destroyed, even if it has more than one torpedo factor.

8.0 Damage

The Ship Data Sheet contains boxes for each area of the ship that may be damaged by enemy fire. As they are damaged the boxes are marked off from left to right. Once all boxes in a section are marked off, that section is destroyed and further hits there are usually recorded as hull hits. Once all hull boxes are marked off the ship is sunk.

8.1 Armor.

Areas of a ship's record on the Ship Data Sheet that are shaded are protected by armor. There are two types of armor: heavy (boxes shaded gray)

Type and ID		Gunnery Strengths				Fuel Capacity (Coal)		
Ship	Name & VP	Primaries	Secondaries	Tertiaries	Torp.	Move	Hull	Fuel
BB01	Franz Josef 83					1		
	Victory Point Value	Heavy Armor	Light Armor	No Armor	Hull Mounted Torpedoes			

Sample Record from Ship Data Sheet

and light (diagonal stripes in the boxes). Boxes with no shading or stripes are not protected by armor.

8.2 Penetration.

Hits obtained by torpedoes or primary gunnery will damage (penetrate) any type of armor. Hits obtained by secondary gunfire penetrate light, but not heavy, armor. Hits obtained by tertiary gunfire only affect areas protected by no armor. If secondary or tertiary gunfire obtains a hit on an armored portion of an enemy ship that it cannot penetrate, the hit is ignored.

Example: Hamidieh fires her secondary factor at Tri Svititelia, rolling a "6" and scoring one hit. The Central Powers player then rolls two dice for a "5." Consulting the Gunnery Damage Table, the players find that this results in a hull hit. Since heavy armor protects Tri Svititelia's hull, the shot bounces off the ancient tub's tough hide and the result is ignored.

8.3 Excess Damage.

Primary hits on an area with light or no armor may result in extra damage. Roll one additional die for each hit (not for each box destroyed). On a result of 4 through 6, another of the same type hit is recorded. Excess Damage does not apply when rolling on the Critical Damage Table (8.7). If Plunging Fire (8.8) occurs, do not check for Excess Damage. Excess Damage must be applied to the same ship; it cannot damage another ship of a multiple-ship counter (9.0).

8.4 Torpedo Mounts.

Hull-mounted torpedoes (shown within a box on the Ship Data Sheets) carry the same armor protection as the ship's hull. Deck-mount-

ed torpedoes (those with no box around them) have no armor protection. Note that hull-mounted torpedoes are not as accurate in combat (7.71) as those in deck mounts.

8.5 Dead in the Water.

If a ship loses all of its movement factors it may not move unless towed (11.2). A player may choose to voluntarily sink (scuttle) any of his ships at any time. On the Tactical Map a towed ship (and the ship towing it) may only move on the player's final movement step (#17 or 18) of each round (though the towing ship may break the tow).

8.51 Speed Loss. A ship with more than one-half her hull boxes crossed off is reduced one speed level (2+ to 2, 2 to 1, 1 to 1 slow). Ships that suffer a "lose one speed level" or "lose one movement" damage result are reduced one speed level. Ships with a speed of "1 slow" that are reduced one speed level are left dead in the water and may not move unless towed (11.2).

8.52 Foundering. A ship with more than 75% of her hull boxes crossed off is in danger of foundering. At the conclusion of each Move Fleets phase, roll one die for each such ship. On a result of 6 the ship suffers an additional hull hit. Add one to the die roll if the ship moved two sea zones in the last Move Fleets phase, and the following modifiers for the current weather condition: +1 if Squall, +2 if Storm, +3 if Gale. Add one to the result if the ship has a Low-Freeboard indicator (box half full of water on counter).

8.6 Referred Pain.

If a ship that started the game with

no primary armament receives a primary hit, the hit is recorded as a secondary hit. If a ship started the game with no secondary armament, a hit there is recorded as a tertiary hit (thus, a primary hit on a ship with only tertiary armament is recorded as a tertiary hit). If all of a ship's primary armament is destroyed, however, a hit there becomes a hull hit, not a secondary hit. Additional secondary hits become hull hits after all secondary armament is destroyed (provided that the gun type can penetrate the target ship's hull armor), but additional tertiary hits are ignored after all tertiary armament is destroyed.

8.61 If a ship started the game with primary or secondary armament, but no tertiary armament, any tertiary hits are ignored. If a ship with no guns at all receives a tertiary hit, the hit becomes a hull hit. All other armament hits to a ship with no guns are ignored.

8.62 If a ship with no torpedoes receives a torpedo mount hit, the hit is ignored. One torpedo mount hit on a ship with torpedoes destroys all of its torpedo factors, even if the ship has more than one torpedo factor.

8.7 Critical Damage.

When a gunnery or torpedo hit results in a critical hit, roll two dice and consult the Critical Damage Table. Tertiary gunfire hits do not cause critical damage; ignore these results. Armor protects against critical damage unless the result specifies otherwise.

8.8 Plunging Fire.

If a hit scored by primary guns at three or four hexes leads to a result of

10 on the Gunnery Damage Table, a second hull box is destroyed. No additional damage is caused by such hits to ships with their hull boxes enclosed by a box on the Ship Data Sheet. Plunging fire damage must be applied to one ship; it cannot damage another ship of a multiple-ship counter (9.0).

Note: Warships of this era had thickly protected sides but thin deck armor, as few guns had the range to send their shells "plunging" onto an enemy's deck. In the years just before the First World War longer-range weapons became common, with Russian ship-builders (using experience gained in their war against the Japanese) the first to recognize and correct the problem, followed later by the British and Americans. Most warships were more vulnerable at longer ranges.

9.0 Multiple-Ship Counters

Some counters represent several small ships of the same class. Warship counters have several silhouettes. Transport counters have a single silhouette.

9.1 Ship Assignments.

The scenario instructions list the number of ships of each class available. Any number of counters of the appropriate class may be used to represent them, up to the number provided in the counter mix. The owning player decides at the start of the scenario how many ships each counter will represent. One multiple-ship counter may represent up to three warships or four merchant ships. Each multiple-ship counter's space on the Ship Data Sheet shows three warships or four merchant ships. Cross out unused hit records to show how many ships the counter represents. Once a ship is assigned to a counter its assignment may not be changed.

9.2 Lone Ships.

If a multiple-ship counter represents only one ship, it is treated like any other ship counter.

9.3 Combat.

In combat each multiple-ship counter is treated as a single ship for placement and must move as one ship.

When a multiple-ship counter is within sighting range of an enemy ship on the tactical map or when the fleet is attacked by an airship, aircraft or submarine, the opponent is told how many ships the multiple-ship counter represents. Its ships may fire at separate targets if the owning player wishes. A multiple-ship counter is treated as a single target. If hit by enemy fire or torpedoes the owning player distributes hits among the counter's ships in any way he or she sees fit.

Example: The Allied player attacks the Austrian cruiser *Saida* with all 3 ships of a *Beagle*-class destroyer counter. He therefore has 3 tertiary gunnery factors (1 for each destroyer) and 3 torpedo factors (1 for each destroyer).

9.4 Speed.

All ships in a multiple-ship counter move at the speed of the slowest ship represented by the counter. Thus if one ship is struck dead in the water, no ship in the counter may move unless the stricken ship is sunk or towed. Players may voluntarily sink (scuttle) such a ship at any time. Ships may be towed (11.2) by ships from their own multiple-ship counter or by another of the owning player's ships.

9.5 Fuel.

Multiple-ship counters are treated as one ship for purposes of fuel consumption (12.1) and refueling (12.3). Note that a multiple-ship counter only has one set of fuel boxes on the Ship Data Sheet for the counter, not one for each ship.

10.0 Merchant Shipping

Some scenarios direct one or both players to attack enemy merchant shipping. There are two kinds of merchant ships, those represented by the generic transport counters provided in the game (usually large troop transports) and those located through the Merchant Location Table (usually sailing ships or small tramp steamers).

10.1 Transport Counters.

Transports (all are multiple-ship counters, labeled "merchant" in some series games) are treated like

any other ship in the game, and may be located and attacked. Their sinking or safe arrival is usually worth a large number of victory points. Transports have one or two hull boxes each, are never armored and are never armed.

10.2 Merchant Location Table.

Only fleets on a raid mission may use this table (abbreviated MLT). Write "Search 1" or "Search 2" on the Log Sheet when writing orders, depending on how many movement factors are expended in the sea zone.

10.21 Search Speed. Ships with a speed of 1 must be present in the sea zone they wish to search at the start of the turn and may not exit the sea zone. Those with a speed of 2 may move one sea zone and search either the zone they leave or the zone they enter (not both) using the "1" column on the MLT, or may remain in place and use the "2" column.

10.22 Sea Routes. Major and minor sea routes, representing important shipping channels, are marked on the operational map. Sea zones crossed by a major sea route have a merchant density number of four, those adjacent to a major sea route have a merchant density number of two. Sea zones crossed by a minor sea route have a merchant density number of three, those adjacent to a minor sea route have a merchant density number of one.

10.23 Procedure. Players may roll the die once on the MLT for each of their warships (any ship with a gunnery or torpedo factor) assigned a raid mission which are located in a sea zone with an enemy merchant density number. Add one to the die roll during a night turn.

10.24 Results. Match the result to the appropriate column on the MLT. The result is the number of merchant ships, each worth 1/2 a victory point, destroyed. If any merchant ships are destroyed, the player must place the raiding fleet's counter on the operational map and reveal to his or her opponent the number of merchant ships destroyed and their location, but

he or she is not required to reveal the identity of the ship which sank them.

Merchant Location Table

Die	Density			
	1	2	3	4
1	-/1	1/1	1/2	2/2
2	-/-	-/1	-/1	1/2
3	-/-	-/-	-/1	1/1
4	-/-	-/-	-/-	-/1
5	-/-	-/-	-/-	-/1
6	-/-	-/-	-/-	-/-

Result: The number of ships located with 1 movement/ 2 movement points expended in the sea zone.

11.0 Special Rules

11.1 Shore Bombardment.

Some scenarios require one or both players to bombard certain enemy coastal zones. To bombard a coastal zone, the ships performing the mission must remain there for one full turn without combat or movement (write "shell" on the log sheet). The bombarding player must announce which zone is under attack and the number (but not identity or type) of ships taking part.

A fleet that attempts to bombard is not permitted to bombard if a bombarding ship moves, fires or suffers damage during tactical combat (11.1).

11.2 Towing and Repair.

11.21 Towing. A ship dead in the water through battle damage (losing its movement factors) or by running out of fuel may be towed by another friendly ship. Capital ships may tow anything. Light ships may only tow other light ships. Non-warships may only tow other non-warships.

11.22 Speed. The damaged ship and the towing ship move at a rate of one sea zone every third turn. If contact is made with enemy forces and battle resumes, neither ship may fire during the first combat segment one of the ships could normally fire.

11.23 Combat. A ship under tow may move on the player's final move-

ment step (#17 or 18) of each round (though the towing ship may break the tow). The ship towing it must occupy the same hex.

11.24 Multiple-Ship Counters. If any of the ships represented by a multiple-ship counter is left dead in the water the others may tow it, moving one sea zone every third turn. A ship represented by a multiple-ship counter may be towed by another ship, but all ships represented by the counter suffer the same movement and combat penalties.

11.25 Organization. A ship under tow and the ship towing it may be formed into a new fleet if a fleet counter is available. This fleet must be given an abort mission. The fleets do not suffer the normal speed reduction for creating a new fleet (5.25).

11.26 Breaking a Tow. During any movement step in the Tactical Sequence, a ship may stop towing another ship if the towing ship would otherwise be allowed to move. The ship being towed still may not move, but the towing ship is no longer restricted (and is no longer tied to the towed ship).

11.27 Emergency Repairs. A player may attempt to restore movement to a ship struck dead in the water through battle damage (not by running out of fuel). At the end of each tactical impulse sequence, and once each turn for ships in fleets with abort missions which were not involved in battle, the owning player rolls one die for each ship unable to move. On a result of 1 the ship may now move at speed "1 Slow." On a result of 5 or 6 the damage is so great that repair is not possible and no further attempts may be made. A damaged ship still capable of movement may not be repaired (repair cannot yield a speed faster than 1 Slow speed).

11.3 Ports.

Ships that are in or that enter a sea zone containing a friendly port may enter the port.

11.31 Port Battle. A ship in a minor port may be attacked by enemy ships. There is no contact die

roll if the player whose ships are attacking the port wishes a battle. The player with ships in port never has the tactical initiative (7.21) and may not move his ships during combat resolution. They suffer the target modifier for being dead-in-the-water. The attacking ships may not enter the hex occupied by the ships in port or any hex adjacent to them. Torpedo attacks (7.7) may not be made against ships in a port.

11.32 Port Entry. Ships in a port may re-enter sea zones during a later turn. The first sea zone they enter must be the one containing the port.

11.33 Major Bases. Major ports have certain defensive abilities due to coastal artillery, minefields and light forces not represented in the game. Submarines (15.0) and MTBs (18.0) may not be placed in a sea zone containing an enemy major base. Fleets may not enter a sea zone containing a major base they are not allowed to use (enemy or neutral).

11.4 Night.

Night turns are indicated by shaded spaces on the Log Sheet. Sighting range (7.37) is reduced at night, contact between enemy fleets is less likely and it is more difficult to land aircraft (14.52). Some turns are twilight turns (turns 4, 10, 16, 22, etc.). These turns are treated as night turns for scenarios taking place in November, December, January and February (or those noted simply as "Winter") and as day turns in all other scenarios.

11.5 Unloading.

Some scenarios require merchant ships and warships acting as transports to load or unload cargo. All transports and warships acting as transports begin a scenario already loaded unless the instructions specify otherwise. Unloading or loading cargo takes three consecutive turns (write "load" or "unload" on the log sheet). A ship may not move or engage in any form of combat (including shore bombardment) during a turn in which it unloads. If it leaves the sea zone where it is unloading, or if it moves, fires or is sunk during tactical combat, the

unloading is canceled and may not be resumed. Any victory points for unloading are lost.

11.6 National Cooperation.

When rolling the die to determine tactical initiative, subtract 1 from the result for each nationality beyond one present in the Allied fleet. Add 1 to the result for each nationality beyond 1 present in the Central Powers fleet. German ships may be treated as ships of any nationality. Canadian and Australian ships are treated as British ships.

Example: The Allied player enters combat with a fleet including French, British, Italian and Russian ships and rolls a 6. He subtracts three from the result, which would give the tactical initiative to the Central Powers player unless other modifiers (leaders or Central Powers nationalities) applied.

11.7 Weather.

The scenario instructions indicate the starting weather condition for each scenario.

11.71 Weather Determination.

During the weather phase, the Central Powers player rolls one die to see if the weather condition changes. On a result of 6, the weather condition is increased by one level (for example, from level 1, which is Clear, to level 2, which is Mist). On a result of 1, the weather condition is decreased by one level. In scenarios taking place in November through March, the weather condition is increased on a result of 5 or 6. Also see rule 11.74.

11.72 Weather Zones. Some games in the series may direct players to make separate die rolls for weather conditions in different parts of the operational map.

11.73 Conditions and Effects.

6. Gale.

- Any aircraft or airship on the map is destroyed.
- Each player rolls two dice for each of his AYs, DDs and TBs at sea; on a result of 12 the ship is sunk.
- Surviving DDs and TBs have their speed reduced to 1.

- Ships may not fire their secondary or tertiary guns.

- Ships with the Low-Freeboard indicator (box half full of water on counter) may not fire any of their guns.

- No torpedo attacks, including those made by submarines, may be made.

- Aircraft (14.0) may not take off, land or spot enemy fleets.

- Visibility on the tactical map is limited to one hex.

- Subtract two from the die roll for all contact attempts (5.4).

- Add three to the foundering die roll (8.52).

5. Storm.

- Aircraft and airships may not attack.

- Airships may not spot enemy fleets (17.3) or assist in making contact (5.4).

- Subtract three from aircraft takeoff and landing die rolls (14.0).

- Airships, destroyers and torpedo boats have their speed reduced to 1.

- Ships may not fire their secondary or tertiary guns.

- Ships with the Low-Freeboard indicator (box half full of water on counter) may not fire any of their guns.

- No torpedo attacks, including those made by submarines, may be made.

- Visibility on the tactical map is limited to two hexes.

- Add two to the foundering die roll (8.52).

- Subtract one from the die roll for all contact attempts (5.4).

4. Squall.

- Aircraft and airships may not attack.

- Aircraft and airships may not spot enemy fleets (17.3) or assist in making contact (5.4).

- Subtract two from aircraft takeoff and landing die rolls (14.0).

- Airships, destroyers and torpedo boats have their speed reduced to 1.

- Ships may not fire their secondary or tertiary guns.

- Ships with the Low-Freeboard indica-

tor (box half full of water on counter) may not fire any of their guns.

- No torpedo attacks, including those made by submarines, may be made.

- Visibility on the tactical map is limited to two hexes.

- Add one to the foundering die roll (8.52).

- Subtract one from the die roll for all contact attempts (5.4).

3. Fog.

- Airships may not attack and may only spot enemy ships in the same sea zone.

- Subtract one from aircraft takeoff and landing die rolls (14.0).

- Visibility on the tactical map is limited to two hexes.

- Subtract one from the die roll for all contact attempts (5.4).

2. Mist.

- Daylight visibility on the tactical map is limited to three hexes.

1. Clear.

- No effect.

11.74 Regional Variations. In scenarios taking place on the Mediterranean map, the weather condition is decreased by one level on a result of 1, 2 or 3. If a 6 is rolled, roll the die a second time. The weather condition is increased by one level only if this second result is a 4 through 6.

In scenarios taking place on any Pacific Ocean map, the weather condition is decreased by one level on a result of 1 or 2. If a 6 is rolled, roll the die a second time. The weather condition is increased by one level only if this second result is a 3 through 5; increase by two levels if the result is a 6.

There is no additional modification for scenarios on Pacific Ocean maps taking place in November through March.

Advanced Rules

12.0 Fuel and Endurance

Each ship has a fuel capacity noted on the Ship Data Sheet. During the Orders

Phase, each player must check his or her ships' fuel consumption.

12.1 Consumption.

Fuel status is updated on the Ship Record Sheet for each individual ship. Check off 1 fuel box for every 12 sea zones a ship enters. If a ship enters 2 sea zones in one turn, count each as 3 zones (for a total of 6 for the turn). Note any remainder alongside the fleet's column on the Log Sheet; this is counted toward the next fuel box marked off.

Example: The Central Powers player sends the Austrian cruiser *Novara* on a raid into the Mediterranean Sea, the only ship in Fleet 1. For the first five turns the cruiser moves one sea zone each turn, but on the sixth through ninth the cruiser moves two. On turn seven the Central Powers player would mark off one fuel box for *Novara* and write "5" (the remainder, since $1 + 1 + 1 + 1 + 1 + 6 + 6 = 17$) alongside the Turn Seven line for TF 1. On turn nine he would mark off another fuel box for *Novara*, writing "5" ($5 + 12$) alongside the Turn Nine line for Fleet 1 as the remainder.

Players may find it easiest to merely keep track of fuel consumption for the ship in each fleet that has the fewest fuel boxes. Obviously, additional notes will be necessary if the fleet divides, combines or refuels some of its ships.

12.11 If a ship does not move while at sea, it expends fuel as though it entered one sea zone.

12.12 Ships do not expend fuel while refueling or while in port.

12.13 Ships with the Sail-Capable indicator (sail depiction on counter) may move one sea zone every other turn without expending fuel.

12.2 Running Out of Fuel.

Once all of a ship's fuel boxes have been crossed off, it is dead in the water. It may not move, but may be towed (11.2). A ship must have enough fuel to conduct its scheduled movement.

12.3 Refueling.

A player may restore one of a coal-

burning ship's fuel boxes for every complete turn the ship spends in a friendly port (one the player's ships are allowed to use) or three of an oil-burning ship's fuel boxes. Note "Fuel" on the Log Sheet. Note that some scenarios restrict ports in which a ship may refuel. Any number of ships may refuel in the same port at the same time.

Example: *Novara*, with one fuel box remaining, enters Cattaro on Turn Ten. On Turn Eleven the Central Powers player erases the mark in one of *Novara's* crossed-out fuel boxes. On Turn Twelve he erases another. On Turn 13 *Novara* leaves Cattaro with three fuel boxes available.

12.4 Combat Restrictions.

A ship may not move or engage in any form of combat (including bombardment) during the turn in which it refuels (including from a collier) or rearms. If attacked by enemy forces, it gains no fuel or torpedoes.

12.5 Colliers.

Coal-burning ships (white fuel circles on the Ship Data Sheet) may refuel from colliers. If a collier is available, a player may restore one of a ship's fuel boxes and mark off one of the collier's for every complete turn the ship spends in a coastal sea zone with the collier. Note "Coal" on the log sheet. Colliers may not enter any sea zone containing an enemy port.

12.51 Limitations. A collier may only refuel one ship at a time. Multiple colliers could each refuel one different ship in the same coastal zone at the same time. A ship may not refuel from more than one collier at the same time.

12.52 Re-Stocking. A collier may refuel in a friendly port like any other ship, at twice the usual rate (two boxes per turn).

12.53 Collier Counters. Use transport counters to represent colliers. The scenario instructions will direct whether the collier is "fast" (speed 1) or "slow" (speed 1 slow). Each counter represents one collier: it is not a multiple-ship counter.

12.54 American Efficiency. In scenarios taking place after 1920, ships may refuel from American colliers at three times the usual rate (three boxes per turn) and American colliers may refuel in a friendly port at six times the usual rate (six boxes per turn).

12.6 Oilers.

Oil-fired ships (gray fuel circles on the Ship Data Sheet) may refuel from oilers. If an oiler is available, a player may restore three of a ship's fuel boxes and mark off three of the oiler's for every complete turn the ship spends in a coastal sea zone with the oiler. Note "oil" on the log sheet. Oilers may not enter any sea zone containing an enemy port.

12.61 Limitations. An oiler may only refuel one ship at a time. Multiple oilers could each refuel one ship in the same coastal zone at the same time. A ship may not refuel from more than one oiler at the same time.

12.62 Re-Stocking. An oiler may refuel in a friendly port like any other ship, at twice the usual rate (six boxes per turn).

12.63 Oiler Counters. Use fast transport counters to represent oilers. Each counter represents one oiler: it is not a multiple-ship counter.

12.64 Oilers in Combat. When an oiler is hit by gunfire or torpedoes in combat, the owning player rolls one die. On a result of 6, the oiler explodes and sinks.

12.7 Re-Arming.

Ships that have used their torpedoes in combat (7.73) may restore their torpedo factor if they spend three turns in port.

13.0 Mine Warfare

Minefields may be placed along zone boundaries. Some are placed at the beginning of the scenario (see scenario instructions); others may be sown during the course of play.

13.1 Minefield Location.

Note minefields on the Log Sheet, writing down the two zones bordering the minefield. A player is not

required to inform his opponent of the location.

Example: The Central Powers player places a minefield northeast of Constantinople. On his log sheet under the "Minefields" column he writes "O 56/O 57."

13.2 Entering a Minefield.

When an enemy fleet marker crosses a mined sea zone boundary, the player who placed the mines informs his opponent. The player who moved the fleet stops moving it and for each ship in the fleet rolls two dice and consults the Minefield Table.

13.21 Procedure. Resolve each mine hit by rolling one die and consulting the Mine Damage Table.

13.22 Friendly Fire. Minefields do not affect fleets belonging to the player who placed them.

13.23 Mines in Combat. Ships which crossed a sea zone boundary as a result of leaving the tactical map (7.33) also must have possible mine hits resolved.

13.24 Aftermath. After the player moving his or her fleet has resolved possible mine hits for one-fourth of the ships in the fleet (round any fractions up), he or she may stop moving the fleet and re-plot its movement for this turn and the following turns (unless the fleet crossed the boundary when leaving the tactical map).

13.3 Laying Mines.

Ships capable of laying mines are noted in the scenario instructions. Note that a ship's minelaying capability may not be the same in every scenario.

13.31 Mission Statement. To place a minefield, a ship must be part of a fleet with a minelaying or a raid mission and must remain in a sea zone for four turns. Note "mine" on the log sheet for those turns. If the ship does not move, fire (including bombardment) or suffer damage during those turns, the player may note one of that sea zone's six boundaries as containing one minefield. The minefield does not become active (affect passing enemy ships) until the next turn.

13.32 Extent. All of a sea zone's

boundaries may be mined.

13.33 Extra Mines. Additional minefields may be placed along a boundary already containing a minefield.

13.34 Prohibitions. Minefields may be placed in any sea zone within two sea zones of a sea zone that contains land (not an island). Count the sea zone that the minefield occupies, but not the sea zone the land occupies to determine the distance. An island is land that is present in only one sea zone. All other land is coastal.

13.35 Activation. A player placing a minefield may delay its activation. Note the game-turn (any turn after that during which it was placed) on which it becomes active. An inactive minefield has no effect on enemy ships.

13.36 Infiltration. Minefields may be placed along the boundaries of a sea zone containing a major base.

13.4 Minelayers in Combat.

When a minelayer (or another ship acting as a minelayer) is hit by gunfire or torpedoes in combat, the owning player rolls one die. On a result of 6, the minelayer explodes and sinks.

13.41 Panic. A player may order a minelayer (or another ship acting as a minelayer) to jettison its mines; its fleet's mission must be changed to abort and it may lay no more minefields in the current scenario but is not subject to exploding if hit in combat (except through the usual damage results). A ship may not jettison mines during combat.

13.42 Definitions. A warship is only considered a minelayer for purposes of this rule if it is on a minelaying mission and the scenario instructions state that it is capable of laying mines. Minelayers (type ML) are always subject to this rule.

13.5 Auxiliary Minelayers.

Some scenarios direct that merchant ship counters be used to represent auxiliary minelayers. These may be used as multiple-ship counters to represent more than one minelayer. Auxiliary minelayers have all the characteristics of the merchant ship

counter used to represent them (and may explode in combat).

13.6 Sweeping Mines.

A minesweeper may be used to remove minefields. Only mine-sweepers and those ships noted in the scenario instructions as capable of sweeping mines may remove mines.

13.61 Mission Statement. To detect or attempt to remove a minefield, the minesweeper must be part of a fleet with a Mine Sweeping mission.

13.62 Detection. Before a minefield may be removed, it must first be detected (minefields placed by the same side are always detected: you do not have to detect a minefield to sweep your own mines). To detect an enemy minefield in a sea zone, the minesweeper must remain in the sea zone for an entire turn. Note "detect" on the log sheet for the turn. If the minesweeper does not move, fire (including bombardment) or suffer damage during that turn, the opposing player must indicate which borders of the sea zone contain minefields, and how many minefields are present.

13.63 Sweeping. After a minefield is detected, a minesweeper may attempt to sweep it. The minesweeper must remain in a sea zone bordering the minefield for two full turns. Note "sweep" on the log sheet for the turn. If the minesweeper does not move, fire (including bombardment) or suffer damage during those turns, the owning player rolls one die for each minesweeper attempting to sweep mines at the conclusion of the second turn. On a result of 1 the minesweeper is destroyed by exploding mines. On a result of 2 or 3, there is no effect. On a result of 4, 5 or 6 one minefield (sweeping player's choice) is removed.

14.0 Aircraft

Seaplane carriers (CVS) and aircraft carriers (CV) may launch their aircraft to scout enemy forces.

14.1 Launch.

14.11 Seaplane launches must be plotted on the log sheet (write "Launch" for the turn in which the

seaplane is to be launched).

14.12 Roll one die for each aircraft counter launched. On a roll of 1, the plane crashes on takeoff and is removed from play. Subtract two from the die roll if attempting to take off at night. Add one to the die roll when taking off from an aircraft carrier (CV).

14.13 If the launch is successful, place the seaplane counter in the sea zone containing the carrier.

14.14 A seaplane carrier may not move on the turn it launches its aircraft. An aircraft carrier may move and then launch aircraft in the same turn.

14.2 Flight.

Aircraft are moved after all fleet movement is complete and are not plotted, but moved as the owning player desires. On the turn following launch, the aircraft may be placed on a sea zone within four zones of the point where it was launched. On the following turn it may be moved one zone, or remain in place. This movement is not plotted on the log sheet.

14.3 Recon.

If an aircraft enters a sea zone containing an enemy fleet, the enemy player must reveal the number of ships included and how many are capital and how many are light ships. He may declare other classifications to be either capital or light ships as he wishes.

Example: A Russian seaplane enters a sea zone containing a Central Powers fleet of the *Goeben*, *Berk-i-Satvet* and *Peyk-i-Sevket*. The Central Powers player informs his opponent that the fleet contains one capital and two light ships.

14.4 Flight Paths.

An aircraft may enter zones containing only land (but may not leave the playing area).

14.5 Recovery.

On the third turn after launch, the aircraft must return to its carrier. The carrier must be within four zones of the aircraft (if not, the aircraft is lost). A carrier (either type) may not move on the

turn it recovers its aircraft.

14.51 Aircraft recovery must be plotted on the log sheet (write "Recover" on the log sheet for the turn in which the aircraft is to land).

14.52 The owning player rolls one die. On a roll of 1 or 2, the aircraft crashes on landing and is removed from play. Subtract 3 from the result if attempting to land at night.

14.53 The aircraft may be launched again four turns later.

14.6 Missions.

Carriers may only conduct air operations (launch and recover their aircraft) if their fleet has a raid, intercept or bombardment mission.

15.0 Submarines

Some scenarios include submarines.

15.1 Submarine Plotting.

Before play begins, the player notes the location of each of his or her submarines on the log sheet. Write the number of the sea zone the submarine occupies in the "patrol zone" column. A patrol zone may be selected anywhere except coastal zones within two zones of an enemy port. Once assigned to a patrol zone, the submarine may not move.

15.2 Submarine Contact.

If an enemy fleet moves into a submarine patrol zone, during daylight turns only, the submarine's owner may attempt to make contact. The owner rolls one die for each submarine present, and contact is made on a result of 5 or 6. The enemy player need only inform the submarine's owner of the number and classification (capital, light or other) of ships present, not their identity. The submarine's owner may elect to let the enemy fleet pass unmolested (and not disclose the submarine's presence).

15.3 Submarine Torpedoes.

Each submarine has one torpedo factor in a hull mount.

15.4 Submarine Attack.

Once contact is made, the submarine may launch a torpedo attack. Each submarine's attack is resolved separately if more than one is present. If

any destroyers (DD), torpedo boats (TB) or minesweepers (MS) are present, they may attack the submarine first - one die is rolled for every three DDs, TBs or MSs present. The submarine is destroyed before it can attack on a result of 5. On a result of 6 it is destroyed after the attack. There is no effect for any other result.

15.41 Target Selection. If the submarine is not destroyed before attacking, its owner now randomly draws one of the fleet's ship counters. He or she may choose the classification, but not the individual ship or type. For example, if a German submarine attacks a fleet of two dreadnoughts, two pre-dreadnoughts and two gunboats, the Central Powers player may choose to attack a capital ship, but would pick one of the four capital ship counters (two dreadnoughts and two pre-dreadnoughts) randomly.

15.42 Resolution. One die is rolled for each submarine. A hit is scored on a roll of 6 or more. Add one to the die roll if the target is a capital ship or an F-numbered merchant ship) or if the target has no movement factors. Damage is resolved on the Torpedo Damage Table.

15.5 Limitations.

Submarines may not attack one another.

15.6 Submarine Aces.

Some scenarios direct that certain submarines are captained by skilled, energetic commanders. Submarines with ace commanders make contact on a die roll of 4, 5 or 6 and add one to their torpedo attack die roll.

15.7 Sinking a Submarine.

Each enemy submarine is worth four victory points (see scenario book) if sunk.

16.0 Leaders

Some scenarios include energetic and capable fleet commanders of special ability.

16.1 Flagship.

If a leader is available, as directed by the scenario instructions, write his name on the fleet status sheet next to one of his side's ships. This is his flag-

ship. The leader may not change ships during the course of the game, and if his flagship is sunk he is removed from play as well (even a surviving admiral is considered ineffective, due to casualties among his staff, loss of communications equipment and general confusion).

16.2 Effects.

When determining contact, either player may declare the presence of a leader and add 1 to the die roll (5.44). When determining tactical initiative, subtract 1 from the die roll if a Central Powers leader is present and add 1 to the result if an Allied leader is present (7.1). Otherwise, a leader has no direct effect in combat.

17.0 Airships

Some scenarios make airships available to either or both players. At the start of the scenario, place all airships of that nationality in an opaque container. The owning player then randomly draws the number of airship counters specified and places them as the scenario instructions direct.

17.1 Movement.

An airship may move a number of zones per turn as indicated on its counter. Its movement is plotted as for a fleet with an intercept mission.

17.2 Flight Paths.

An airship may enter any zones, even those containing only land.

17.3 Recon.

If an airship enters a sea zone containing or adjacent to an enemy fleet, the enemy player must reveal the number of ships included and how many are capital and how many are light ships. He may declare other classifications to be either capital or light ships as he wishes.

17.4 Endurance.

An airship must return to its base (noted in the scenario instructions) within 60 turns or it is lost. Airships may not refuel within the scope of the game.

18.0 Motor Torpedo Boats

Some scenarios include motor torpedo boats (MTBs).

18.1 Patrol Zones.

Before play begins, the player notes the location of each of his MTBs using his Log Sheet. Simply write the boat's name in the "submarine" column and the zone number in the "patrol zone" column. A patrol zone may be selected in any coastal zone within six sea zones of a friendly port. Once assigned to a patrol zone, the MTB may not move.

18.2 Contact.

If an enemy fleet moves into an MTB patrol zone, the boat's owner rolls one die for each MTB present, making contact on a result of 3 through 6. If contact is made, the enemy player must reveal the identity of all ships present.

18.3 MTB Torpedoes.

Each MTB has two torpedo factors in a deck mount.

18.4 MTB Attack.

Once contact is made, the boat's owner selects a target ship for each MTB boat present and rolls one die for each boat to see if he has surprised the enemy. On a result of 4, 5 or 6 the boat has surprised the enemy and may make a torpedo attack on the target ship. On a result of 2 or 3 the target ship may fire all of its guns at the MTB boat, which is destroyed by any hit. On a result of 1 every enemy ship in the fleet may fire at the MTB.

All of a ship's guns may fire at an MTB, but hit on a roll of 6 (add one to the result for ships with names italicized on the Data Sheet). If the MTB boat survives the enemy fire, it may make a torpedo attack on the target ship.

18.5 Italian Valor.

Add one to the die roll for torpedo attacks made by Italian MTBs.

Example: Two Italian MTBs make contact with the Austrian battleships *Tegetthoff* and *Szent Istvan*. Each MTB targets one battleship. The Allied player rolls a 3 for first MTB, allowing the *Tegetthoff* to fire first. The Central Powers player rolls 12 dice (for the *Tegetthoff's* 8-3-1 gunnery) rolling six 6s, two 5s, three 4s and one 1. The MTB is hit six times and vaporized. The Allied player rolls

a 6 for the next MTB, surprising the *Szent Istvan*. The Allied player now rolls two dice for his torpedo attack, with a result of 5 and 4, both of which hit the *Szent Istvan* since it is a large target and the torpedoes were fired by an Italian MTB. Each results in critical damage, totaling 11 hull hits and sinking the dreadnought.

18.6 Restrictions.

MTBs may not attack or be attacked by submarines and may not use the Merchant Location Table. They may attack transports.

19.0 Optional Rules

19.1 Tactical Set Up.

The initiative player may always set up his or her ships at a distance from the non-initiative player's ships equal to the current maximum sighting range. They still must be deployed to reflect their entry into the tactical map from the appropriate sea zone.

19.2 Secondary Penetration.

When a secondary gun registers a hit on an area of the target ship protected by heavy armor, there is a chance the hit may penetrate (and cause damage). The firing player rolls one die a second time to see if damage is inflicted.

- A secondary hit inflicted on heavy armor at a range of one or less hexes will penetrate and cause damage on a result of 4-6.

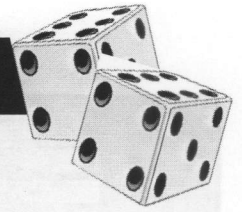
- A tertiary hit inflicted on light armor at a range of zero hexes (firing from the same hex as the target) will penetrate and cause damage on a result of 4-6.

19.3 Separation.

During the orders phase, a player may divide the ships of a multiple-ship counter if another counter of the same type is available.

Example: One ship of a Russian *Bespokoiny*-class destroyer counter is damaged and its speed drops to 1. The counter represents three ships, two of them undamaged. The Russian player puts another *Bespokoiny*-class counter in play, assigning the damaged ship to it.

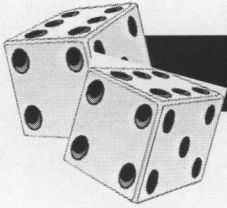
Critical Damage Table



(hits by secondary gunfire only penetrate heavy armor on a roll of 8)

<i>dice roll</i>	<i>hit type</i>
2	6 Hull, 3 Primary, lose one movement†
3	3 Primary
4	Leader Killed
5	2 Primary
6	2 Hull
7	2 Secondary
8	2 Hull (secondary destroys one heavy armor hull box)
9	1 Primary
10	1 Hull, lose one movement
11	3 Hull
12	5 Hull, 5 Primary, lose all movement

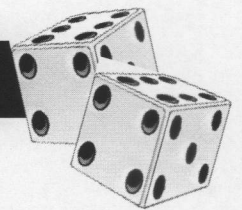
† British BC explodes and sinks in scenarios taking place before 1917.



Torpedo Damage Table

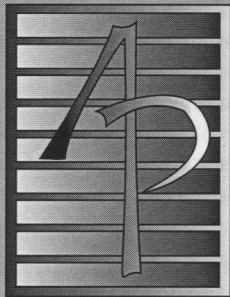
<i>dice roll</i>	<i>hit type</i>
2	Critical Damage
3	2 Hull
4	No Damage
5-6	1 Hull
7	2 Hull
8	1 Hull
9	Primary
10	2 Hull, lose 1 movement
11	3 Hull, lose all movement
12	Critical Damage

Gunnery Damage Table



<i>dice roll</i>	<i>hit type</i>
2	Critical Damage
3	Torpedo Mount
4	Secondary
5	Hull
6	Secondary
7	Primary
8	Tertiary
9	Primary
10	Hull†
11	2 Hull, lose one movement
12	Critical Damage

† If Plunging Fire (8.8) add second hull hit.



Design: Mike Bennighof.
Development: Brian Knipple.
Second Edition Rules Editing: Joe Keller.
Rules Layout and Design: Peggy Coleman

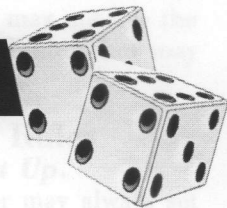
No element of this game may be reproduced in any fashion, including, but not limited to, electronic versions, without the express written permission of Avalanche Press, Ltd.

Minefield Damage



die roll	damage
1-2	1 hull
3	2 hull
4	3 hull, lose one movement
5	5 hull, lose all movement
6	ship sinks

Minefield Table

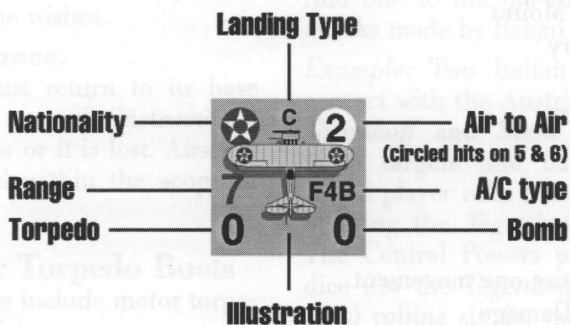
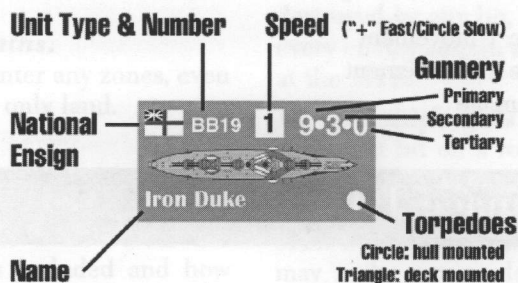


Ship is damaged on result of 11+

Modifiers:

- +1 for each additional minefield (maximum of +5)
- +2 for ship moving speed class 2

Counter Key



Gunnery Die Roll Modifiers

- +1 firing into the same or an adjacent hex.
- +1 target is dead in the water
- +1 target is towing or being towed (11.2).
- +1 firing ship's name is italicized on the Data Sheet.

Torpedo Die Roll Modifiers

- +1 target is capital ship or F-numbered transport
- +1 target is dead in the water
- +1 target is towin or being towed (11.2)
- +1 target in same hex as firing ship
- -1 firing ship is capital ship
- -1 torpedo fired from hull mount