

2ND EDITION GAME RULES



READ THIS FIRST

We've organized the overall structure of the rules of this LPS Inc. simulation game to follow this game's sequence of play in introducing concepts. The rules themselves are written in a format known as the Case System. This approach divides the rules into Modules (each of which deals with a major important aspect of play).

Modules are numbered sequentially as well as possessing a title. Each Module is divided into Sections (that deal with a major sub-topic inside the Module) which are also numbered sequentially. Modules and Sections are introduced by some text that briefly describes the subject covered by that particular Module or Section. Finally, the majority of each Section consists of Cases. These are the specific, detailed rules that govern play. Each Case is also numbered sequentially.

The numbering follows a logical progression based upon the number of the Module of which the Cases are a part. A Case with the number 7.5.1, for example, is the first Case of the fifth Section of the seventh Module of the rules. Each Module can have as many as ninety-nine Sections and each Section can have as many as ninety-nine Cases. The numbering system is designed as an organizational aid. Use it to determine where a Case is located in the rules.

3.1.4

The example above is the number of the fourth Case of the first Section of the third Module of the rules.

Learning to Play the Game

Begin by familiarizing yourself with all of the components listed for this game. Then skim through the charts and rules, reading all the titles of the Modules and Sections. Set up a game scenario or portion of a scenario (after reading the applicable Module) and play a trial game against yourself. During this trial game, try referring to the rules only when you have a question and remember the numbering system we employ makes it easy to look up rules when you do. While a trial game may take you an hour or two, it is the quickest and most pleasant way to learn (short of having an experienced friend teach you). We also don't recommend attempting to learn the rules word-for-word. Memorizing all the details is an effort that few can do. We've written these rules to be as comprehensive as possible – but they are not designed to be memorized. Taking in the rules in this way (as you play along) is the best approach to mastering this game. We're always open to suggestions on how to improve the comprehension of our rules. Write to us (see addresses below) if you have an idea on how we can communicate better with you.

1.0 INTRODUCTION

Arctic Disaster is a moderately-complex simulation of the most costly and controversial Arctic convoy battle of World War II. The battle took place in July 1942, when the Allies attempted to sail convoy PQ-17 with 34 cargo vessels through the Norwegian and Barents Seas into northern Russian ports. Against formidable German air, surface, and submarine forces, the convoy suffered devastating losses, with only 11 ships reaching their destination. The disaster was made worse by the decision of the British Admiralty to scatter the convoy in the face of a potential attack by the German battleship *Tirpitz*, making it easier for the Germans to pick-off the defenseless merchant ships via air and submarine attacks. *Arctic Disaster* lets players examine why convoy PQ-17 met with disaster, and allows them the opportunity to use their forces differently to alter the historical outcome. The game system is based on *Against the Odds*' earlier *Imperial Sunset* (published in issue 17), so players familiar with that game should have little difficulty picking up *Arctic Disaster*.

1.1 Game Scale

Each game turn represents 8 hours of time. The game is played during the period of the year where there is almost 24 hours of daylight in the Arctic, so there are no night turns. The scale of each hex is variable since the battle takes place in the northern latitudes.

1.2 Rounding Convention

When making any calculation for game purposes, round up all fractions of .5 and over to the next highest number; any smaller fraction is rounded down to the next lowest number.

1.3 Activation Pool

A key aspect of play is the use of Task Force (TF), Task Group (TG), Air Formation, and Event Activation markers, which are placed into an opaque container (mug, envelope, etc.). These markers comprise an Activation Pool. Players take turns drawing these markers at random during the course of the turn to activate their units and initiate events that will affect play (Module 3.0).

2.0 GAME COMPONENTS

Each copy of *Arctic Disaster* is composed of the following separate components:

- One 22" by 34" game map with displays and tracks printed on it
- One sheet of 280 ½" counters
- One Player's Aid Card
- This rules booklet (with 2nd edition text changes printed in blue)

also containing each sides' TF/TG Deployment sheets, an Air Battle Display, and a Convoy PQ-17 Display in the center. Damage Rosters for both sides are on the back page.

Players will also need a 10-sided die. A die roll of 0 is read as 10, not zero. Also needed is an opaque container (mug, envelope, or something similar) to play the game.

If any of these parts are missing or damaged, write to:

Against the Odds Magazine
425 Steeplechase Ln.
Pottstown, PA 19464-2056 USA
Attn: *Arctic Disaster*

Or e-mail us at: admin@atomagazine.com

We hope you enjoy this game. Should you have any difficulty interpreting the rules, please write to us at the above postal address, or send an e-mail to: gamesupport@atomagazine.com phrasing your questions so that a simple sentence, word, or number can answer them. If you send a letter by mail, you must enclose a stamped, self-addressed envelope to receive a reply. We recommend e-mail as the best way to resolve a query. Although we welcome comments and suggestions about the game's interpretation of

events, we cannot promise to respond to questions on theory or design intent. Additionally, check out the *Against the Odds* and *Arctic Disaster* discussion folders at www.consimworld.com.

2.1 The Game Map

The game's 22" by 34" map is used for all TF/TG, naval and air units. The Surface Naval Combat Display (used for naval surface engagements), German Airbase Holding boxes, and the Game Turn Record Track are also printed on the game map.

2.2 Game Charts and Tables

Printed in the center of these rules are the following charts and tables used to play the game:

- Two small Task Force Composition sheets (cut out each for both players to use independently. One is provided for each player. These should be kept from the opposing player's view at all times during the game except as permitted by Event Marker play.)

- A circular Air Battle Display sheet.
- A large Convoy PQ-17 Display sheet

Printed at the back of these rules you will find:

- Damage Rosters (one set for each player, make copies before using)
- The Terrain Effects Chart

On the separate Player's Aid Card you will find:

- Antiaircraft Table
- Search Table
- Damage Table
- Critical Hit Table
- Air-to-air Combat Table
- Submarine Warfare Table

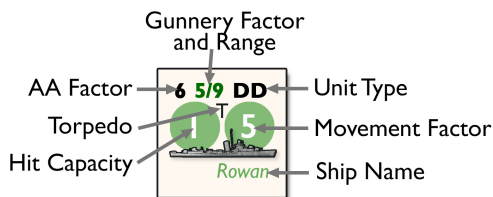
And on the map:

- Surface Naval Combat Display
- The Turn Record Track
- German Airbase Holding boxes

2.3 The Playing Pieces

These are broadly divided into Naval Units and Air Units plus markers.

2.3.1 Naval Units



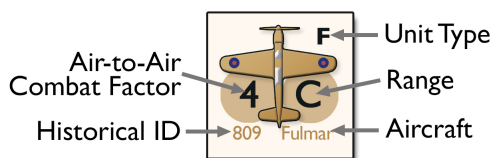
- T: Denotes ship can use torpedoes in combat.
- Naval units that can take only 1 step of damage have a blank reverse/ reduced side.

• Naval units with the capacity to take 2 steps of damage points have their reduced strengths printed on the reverse side.

• Naval units with the capacity to take more than 2 steps of damage have "?" in the circled areas on the counters where the Movement and Hit Capacity Factors would be found on the counter's reverse side, and have the various strengths (Hit, Movement, Gunnery, AA, and air unit basing capability for the *Victorious*) tracked on the owning player's Ship Damage Roster. These naval units' Anti-Aircraft Factor as well as Primary and Secondary Gunnery Factors/Ranges are also listed on the player's Ship Damage Roster.

Allied units assigned to convoy PQ-17 are distinguished by a red asterisk on the front of their counter. This is an important distinction for several game purposes.

2.3.2 Air Units



For fighters, if the range is denoted as C, this indicates the unit can only conduct Combat Air Patrol (CAP) operations. Other units have their range indicated by a number which indicates the range in hexes from which it can operate from its base. The reverse side has the air unit's reduced strength values.

All Allied aircraft units are carrier-based. All German air units are land-based.

For all units, different colors indicate nationality. All German naval units are gray; German air units are blue and are color coded in the same manner as each unit's parent Air Formation. German TG units are tan (for use on the map) and black (for use in the Activation Pool). Allied units are brown on tan (British), green on tan (American), blue on tan (other Allied) and red on tan or all red (for the Soviet Union).

2.3.3 Game Markers The following markers are used in the game:

- Home Fleet TF, Cruiser Force TF, Convoy PQ-17 TF, Task Force 1 through 6 (TF, Allied), and Task Group A through D (TG, German). Each of these have two markers. One is used on the game map (tan counter background color) and the other is used in the Activation Pool (black counter background color).

Note: TF/TG markers have a "?" on one side of the counter to denote it is not detected. The other side with the TF/TG's identification denotes its Detected status.

- Dummy submarines (4x Allied, 5x Soviet, 10x German)
- German Air Formation Activation Markers (6)
- Turn Marker
- Surface Battle Round Marker
- Battle Hex Marker
- -1 MP/-2 MP Marker (9)
- Fuel 1/Fuel 2 Markers (8)
- Activation Event Markers (18)
- Enter/Hidden Ice Markers (16)
- Smoke Markers (5)
- Return to Port Marker
- Shadow Marker

2.3.4 Naval Unit Types Air Unit Types, and Game Abbreviations:

- AA—Antiaircraft
- AT—ASW Trawler
- B—Bomber
- BB—Battleship
- C2—Command and Control
- CA—Heavy Cruiser.

Note: German pocket battleships are classified as CA for game purposes.

- CAP—Combat Air Patrol
- CL—Light Cruiser
- CV—Aircraft Carrier
- DB—Dive Bomber
- DD—Destroyers (includes British Huntclass destroyer escorts)
- DR—Die Roll
- F—Fighter
- FF—Flower-class corvette
- ID—Identification
- KG—Kampfgeschwader
- MP—Movement Point
- MS—Minesweeper

- MT—Merchant Transport ship
- R—Rescue ship
- SS—Submarines
- TA—Tanker
- TB—Torpedo boats (naval units)
- TB—Torpedo Bomber (air units)
- TF—Task Force (Allied)
- TG—Task Gruppe (German)

3.0 GAME SEQUENCE OF PLAY

Players use the following sequence of play for each turn in the game:

3.1 Initial Phase



During this phase, both players can adjust the composition of their Task Forces (TF) or Task Gruppen (TG) by creating new TF/TG or removing others from play. Dummy TF/TG can be created. The Allied player allocates Combat Air Patrol (CAP) missions that will be performed over the aircraft carrier's own TF. Place all active and dummy TF/TG and German Air Formation Activation Markers into the Activation Pool. Determine which other unit markers and Event Markers are in play and place them also in the Activation Pool.

3.2 Activation Phase

All units, including naval TF/TG and German land-based air formations, move and fight during the Activation Phase. During each Activation Phase, there are a varying number of activation sub-phases, as each TF or land-based air formation is activated on a semi-random basis. Interspersed with the activation of TF/TG and air formations, special events come into effect. After all events and TF/TG markers from both players have been pulled from the Activation Pool, and all undamaged individual naval units on the map are moved, the Activation Phase is concluded.

3.3 Terminal Phase

During this phase, both players move damaged naval units that are not assigned to a TF/TG. The German player moves his/her damaged naval units first, followed by the Allied player. Next, submarine units (real and dummy) are moved; players taking turns moving individual submarine units, with the Allied player going first, until all are moved or both players pass. If convoy PQ-17 scattered, all its naval units move at this time.

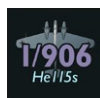
4.0 THE ACTIVATION PHASE

During this phase, players will determine which units will activate and conduct operations for the turn.

4.1 Activation Pool Determination



In this phase, TF/TG and land-based air formations are activated in a largely random manner, and special events and capabilities come into play. Every TF/TG (dummy and real) has two markers. One is used to track movement on the map, and the other is placed in the Activation Pool at the start of every turn. The Allied player uses the tan on white background TF markers (1 through 6) on the map; the black ones are used in the Activation Pool. The German player uses the grey on white background TG markers (A through D) on the map and the black ones are used in the Activation Pool.



Land-based air formations have a single marker that is placed in the Activation Pool at the start of every turn. Since air formations can only fly once per day, do not place a landbased formation's Activation Marker in the Activation Pool if its units have already activated and flown on a turn earlier that day, or if a player wants to withhold activating a formation's air units until later in the turn.

Note: The Allied air units can activate when the TF with the aircraft carrier HMS Victorious activates. The Allied player is not required to activate the carrier's air units when the ship activates with its TF.

4.2 Activation Pool Selection



At the start of each activation subphase, one of the players randomly draws a single marker from the container. This is the TF/TG (or air formation) that is activated for that sub-phase. Event Activation Markers can also be drawn, which activate units or create a new condition. The owning player moves and fights the TF/TG or air formation that has been drawn. Dummy Activation Markers allow the owning player to activate a dummy TF/TG (obviously the fact that the player drew a Dummy Activation Marker should be concealed from the opponent). This process continues until all Activation Markers have been withdrawn from the container and all TF/TG, dummies, and air formations have been activated. Players can track which TF/TG have already been activated by rotating the on-map TF/TG/dummy unit after activation.

4.3 Activation

When a TF/TG is activated it can perform the following actions:

- Move
- Search its own hex
- Conduct air searches (Allied player only)
- Conduct air attacks (Allied player only)
- Conduct surface attacks

These actions are done in any order desired by the owning player. For example, a TF/TG can move while attempting to detect enemy TF/TGs in any hex it enters, or if it has a carrier, launch an air strike against a detected enemy TF/TG. It can also engage in surface combat against an enemy TF/TG in the same hex. When all movement or combat is finished, the TF/TG's activation is over.

Example of play: (1) Allied Cruiser Force has been selected at random from the Activation Pool and is activated. The lowest speed of any ship in the TF is a "4," so the speed of the entire TF is 4 (the Allied player is using regular speed). The TF begins in hex 2128 and moves two hexes to hex 2327, where it enters the same hex as a German TG. The Allied TF conducts a search in the hex for the German TG and this costs no Movement Points (MPs). After a successful search, the Allied TF initiates surface combat with the German TG. The initiation of surface combat could end TF2's movement, depending on the number of rounds in the surface engagement. (2) Allied TF1 (which contains a carrier) has 4 MPs available if moving at regular speed. This is because all of the naval units in TF1 have a speed rating of at least 4. TF1 begins in hex 2134, and the Allied player decides to use it for an air strike on a German TG. TF1 moves to hex 2232 and conducts an air search within its 6-hex radius (the air search costs no MPs). It finds a German TG in hex 2829, so it spends its last MP to launch an air strike against it.

4.3.1 Individual Naval Unit Movement After all TF/TG, Air Formation, and Event Activation Markers are drawn, both players move their undamaged naval units that are on the map. The units are moved individually, starting with the Allied player, taking turns moving an individual undamaged naval unit. This continues until all such units are moved or both players pass.

Individual undamaged naval units are moved with the following limitations:

- An undamaged naval unit may not enter a hex with an enemy naval unit or TF/TG.
- An undamaged naval unit must move in such a manner to either a) join with an existing friendly TF/TG, b) join with another friendly undamaged naval unit to form a new TF/TG, or d) return to a friendly port (Section 6.3, Cases 7.5.3 through 7.5.5 and 7.6.1).

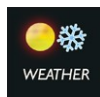
4.4 Air Formation Activation

Land-based air formations can only conduct an air attack against a detected TF. See Module 8.0 regarding actions and combat involving aircraft units when their formation activates.

5.0 SPECIAL EVENTS

Throughout the game, there are a number of Event Activation Markers that are placed in the Activation Pool. These reflect special events or capabilities which could affect one or both players. Each Event Activation Marker is explained below. Once played, an Event Activation Marker is removed for the remainder of the turn. Per the rules for each event, an Event Activation Marker may return the next turn, the next day, or never at all in the game.

5.1 Weather



Both Weather Event Activation Markers have two sides. Drawing a general Weather Event Activation Marker changes the current state of weather in both weather zones. Drawing a marker with a specific name changes the weather in that designated zone only.

Example: If the current weather in the Norwegian Sea is fog, then a new weather chit changes the weather to clear.

The current weather status for each weather zone is tracked on the weather box on the game map. Place the weather marker on its "A" side to indicate foggy weather in an area.

The map is divided into two weather zones (the Norwegian and Barents Seas). When the weather changes from clear to fog, roll the die for each TF flipped to its detected side. In either Sea, a roll of 1-5 restores the TF to its non-detected state (flip the TF over). If PQ-17 is being shadowed, add two to this die roll. If a detected TF moves from a weather zone with clear to another in fog, roll to see if the detected status is removed. Other weather effects include die roll modifications (DRM) on the Search and Damage Tables. Also, air attacks cannot be launched against a TF in a fog weather zone even if the TF is detected.

Weather Event Activation Markers are returned to the Activation Pool for use in each turn.

5.2 Command and Control (C2)



Each player has one C2 Event Activation Marker. These are available for use every turn. When a player's C2 Event Activation Marker is drawn, that player can immediately activate one TF/TG of his/her choice, or in the case of the German player, one land-based air formation. For both players, when the Activation Marker of the TF/TG or air formation activated by the players' C2 Event Activation Marker is drawn from the Activation Pool in a later sub-phase, simply ignore it and select another from the Activation Pool (rotate the TF/TG counter on the map to indicate it was activated earlier via the C2 Event Activation Marker as a reminder). C2 Event Activation Markers do not allow a TF or air unit to activate twice in an Activation Phase, but do permit a slightly enhanced degree of control over a player's forces.

Note: The owning player can also elect not to activate any TF or air formation when the C2 Event Activation Marker is drawn, and instead activate a TF/TG/air formation normally when its TF/TG Activation Marker is drawn from the Activation Pool.

5.3 Intelligence



Each player has an Intelligence Event Activation Marker. When this is drawn from the Activation Pool, the owning player selects a single enemy TF/TG to get a report as to its composition. To do this, the player whose Intelligence Event Activation Marker was drawn rolls a die, adds 5, and consults the Search Table. The TF/TG that was inspected is not flipped to its Detected side. The Allied player also has the option of picking any one port or airfield in

Norway and examining any naval or air units in the hex. Return the Intelligence Event Activation Markers to the Activation Pool every turn.

5.4 Land-based Air Searches



Each player has two Event Activation Markers which allow the player to conduct land-based reconnaissance against enemy naval forces. Once drawn, the owning player can conduct a search of all TF/TG or Convoy Markers and hidden naval units on the map in a full-sea hex using the Search Table. The Allied player can also search TG markers located in Norwegian Leads or in coastal waters, but cannot search any German TG or naval units located in a port. The German player cannot conduct a search against an Allied TF located within two hexes of a Soviet airfield.

These Event Activation Markers are returned to the Activation Pool for use in every turn.

5.5 Grounding



This Event Activation Marker is inserted by the Allied player into the Activation Pool once per game. The Allied player decides at the start of the game turn to add it to the Activation Pool or not. When this Event Activation Marker is drawn, every naval unit in a German TG located in a Norwegian Leads hex is subject to possible grounding. If there is more than one TG located in a Norwegian Leads hex when this Event Activation Marker is drawn, the Allied player picks one of the German TG at random (use a die or some other device to make the random determination). Roll a die for each ship in the affected TG. On a roll of 8-10, the naval unit has run aground and is removed from the game. It does not count for victory point calculations. If the Grounding Event Activation Marker is drawn, and there are no German units in a Norwegian Leads hex, it is ignored.

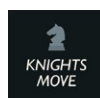
5.6 Massed German Air Event



This Event Activation Marker allows the German player to mass airpower. When drawn, the German player can set it aside and use it at any subsequent point in the turn when a German land-based formation is activated. Following the selection of this Event Activation Marker, when a land-based air unit is drawn, the German player can activate the unit normally or place it under the Massed German Air Event Activation Marker. The German player can do this as many times as he wants to during the turn. At any point when a land-based air unit is pulled from the Activation Pool, the German player can take all the "stored" air units beneath the Massed German Air Event Activation Marker and conduct a mass air attack with all of the air formations' air units. This is the only way the Germans can activate more than one land-based air unit at a time.

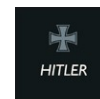
The Massed German Air Event Activation Marker is available once per day on July 3, 4, and 5 turns. The German player decides at the start of the turn whether the Massed German Air Event Activation Marker is placed in the Activation Pool.

5.7 Knight's Move



Knight's Move was the German operation to sortie the battleship *Tirpitz* to attack convoy PQ-17. See Module 14.0 for when this ARCTIC DISASTER Rules of Play 5 Event Activation Marker is placed in the Activation Pool. When this Event Activation Marker is drawn, its effects take place immediately. The Knight's Move operation can only be activated once per game.

5.8 Hitler Status



The first turn the *Tirpitz* is in a full sea hex, the Hitler Event Activation Marker is also placed in the Activation Pool. If this Hitler Event Activation Marker is drawn and the *Tirpitz* is in a full sea hex, the German player must immediately roll a single die. On a result of 1-5, the TG with *Tirpitz* must return to base

immediately, using regular speed, starting with its next and all subsequent activations. Place the Hitler Event Activation Marker face up on the Hitler Status map space to denote this requirement. On a roll of 6-10, Hitler permits the *Tirpitz* and its TG to remain at sea. Place the Hitler Event Activation Marker face down (blank side up) on the Hitler Status map space to denote this status.

If the *Tirpitz* is still at sea and under orders to return to port, there is a chance Hitler will change his mind in a later turn. At the start of a turn in which the Hitler Event Activation Marker is face-up on the map, the German player rolls a die. With a DR of 6-10, Hitler has rescinded his previous order and *Tirpitz* remains at sea. These above DRs are modified as follows:

- +1 if the Allied carrier *Victorious* is currently in a detected TF more than 10 hexes from *Tirpitz*
- +2 if the Allied carrier *Victorious* has been sunk
- -3 if the Allied carrier *Victorious* is currently in a detected TF 10 or less hexes from *Tirpitz*
- -2 if convoy PQ-17 has scattered

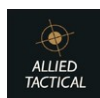
5.8.1 Variant Rule Instead of placing the Hitler Event Activation Marker face up or down on the map so the Allied player can view it and have knowledge of what “*Der Fuhrer*” has or hasn’t decided, the German player places this marker on the German Task Group Deployment Card and out of sight of the Allied player. In this case, the German player should make DRs at the start of every turn the *Tirpitz* and its TG is on the map, even if not required to do so, to add to the Allied player’s deception. This is war. Tell the Allied player to deal with it!

5.9 Convoy Scatters



See Section 9.4 for when this Event Activation Marker is placed in the Activation Pool. When it is drawn, its effects take place immediately.

5.10 Tactical Advantage/Surprise



There are two Tactical Advantage/Surprise markers that are colored differently. They are colored differently so players know when both have been drawn. When this Event Activation Marker is drawn, the player that drew it immediately rolls the die to see which player gets benefits from it. With a DR of 1-5, the Allied player gets this advantage; with a DR of 6-10, the German player. The owning player can save the marker for any use in the current turn with any one DR on the Air-to-Air Table, Search Table, Anti-aircraft Table, Damage Table, or the Submarine Warfare Table. When used, the owning player can modify any one of these DRs (including those of the opposing player) by 2, up or down, whenever he chooses. The decision to use this Event Activation Marker must be made before the DR is made, and once used, it cannot be used again that turn. This Event Activation Marker is placed in the Activation Pool at the start of every turn.

6.0 TASK FORCES/GROUPS

Players regularly deploy their naval units to a Task Force (TF, Allied player) or Task Gruppe (TG, German player). The side with the TF/TG identification/number/letter is its Detected side; the side with “?” on the back is to indicate the TF/TG is undetected. Units in a port are not required to be part of a TF/TG. They must be part of a TF/ TG to leave the port. The separate Hidden “?” markers are used to signify an individual ship that has become hidden.

6.1 TF/TG Deployment

All naval units are assigned to a TF/TG. Place the naval units on the players’ TF/TG Deployment Displays. The TF/TG displays should be kept out of the opponent’s view during play of the game. Under certain conditions, naval units can change their assigned task forces. As a result of

damage, naval units may proceed independently without a TF assignment; these units will be removed from the TF/TG Deployment Displays and placed in full view on the map, where they are always considered to be Detected.

6.2 Convoy PQ-17

All Allied merchant (MT and TA) and close escort naval units are assigned to convoy PQ-17 (note: all of these naval units are marked with a red asterisk on the fronts of the counters). Undamaged merchant naval units cannot proceed independently unless the convoy scatters. Damaged merchant naval units can leave the convoy, but once they do they are placed on the game map and are always considered to be Detected.

6.3 TF/TG Creation

TF/TG may be created or disbanded during the Initial Phase. Any naval units present in the same hex can be used to fill out the composition of the new force from any TF/TG present in the hex. If a new TF/TG is created or abandoned, be sure to add or remove its marker from the Activation Pool. Thus, at the start of each Activation Phase, only active TF/TG have a marker in the Activation Pool.

6.4 Initial TF/TG Assignments and Limits

Initial TF/TG assignments reflect the historical orders-of-battle. Each player can alter these as he desires within the following limits:

- The Allied player can have a maximum of 8 TFs at any time. This is in addition to convoy PQ-17.
- There is no limit to the number of naval units which can be assigned to a single Allied TF.
- Units marked as belonging to convoy PQ-17 (those with a red asterisk on the counter front) can never join with any other TF. The only exception is the six destroyers which start with convoy PQ-17. Once these leave convoy PQ-17 for any reason, they can never rejoin the convoy, but can form or join other TF(s).
- The German player can have a maximum number of four TG at any time. In addition, the German player has 6 landbased air formations.

6.5 Dummy TF/TG

Both players can create dummy TF/TG using TF/TG units/markers that have no naval units assigned to it. When a dummy TF/TG is created, place its corresponding TF/TG Activation marker in the Activation Pool.

Dummy TF/TG can use regular speed and maximum speed. Dummy TF/TG are activated by the owning player once per turn when their corresponding TF/TG Activation Marker is drawn from the Activation Pool. Since they have no naval units, dummy TF/TG cannot engage in searches or combat. If the opposing player gains any type of detection on a dummy TF/TG, it is immediately removed from the map without a contact report being made.

Dummy TF/TG are introduced during the Initial Phase. These can be placed in the same hex of an existing *undetected* TF/TG, so the controlling player can “split” his force from a single hex, thus confusing the opponent. Dummy TF/TG can be voluntarily removed by the owning player during any Initial Phase. They can be reused during the same Initial Phase and throughout the game.

6.6 Stacking

Up to two TF/TG, actual or dummy, may be in the same hex. This restriction applies during all phases of each turn.

7.0 MOVEMENT

When activated units are moved on the map is governed by this section of rules.

7.1 Naval Units

Naval units have two speeds. A naval unit's normal speed is indicated on its counter. This is the number of movement points (MPs) the unit has available during its Activation Phase. **A TF/TG can only move as fast as the slowest ship or submarine in the TF/TG.** Of course, a TF/TG does not have to use all of its MPs when activated or can choose not to move at all.

All naval units that are part of a TF/TG, including those marked as Convoy PQ-17 (ones with a red asterisk), can also use a different rate of speed known as maximum speed. This allows all of convoy PQ-17's units to move at 1.5 times their regular rate (round up or down per Section 1.2 any fraction). Units moving at maximum speed are linked to fuel expenditure (Section 7.9). **On mandatory refueling turns, maximum speed is not allowed.**

Developer's Note: *The reality is that much of the 8-hour turn would have been spent refueling. (Historically, the RN was not very good at this.)*

During movement, a TF/TG or individual ship can move to an adjacent hex and continue moving until it has used some or all of its available MPs. For the movement cost for each type of sea or coastal hex, see the Terrain Effects Chart on the Player's Aid Card.

7.2 Ice Fields

Only naval units that have left convoy PQ-17 (those marked with a red asterisk on the counter front, but not destroyer escort naval units) can move into a partial ice hex. TF/TG can never enter a partial ice hex. To enter or leave a partial ice hex costs two MPs, and once entered, the naval unit's movement is over for the turn.

Note: *No naval unit can enter a full ice hex.*

While in a partial ice hex, the following are in effect:

- -1 DRM on the Search Table. This is for each naval unit in the hex (i.e., each individual naval unit must be detected). Rotate a naval unit to denote if it has been detected.
- +1 DRM on the Damage Table, and a naval unit in a partial ice hex can only be attacked by B type aircraft.



If a naval unit spends two turns in a partial ice hex without being spotted, it is assumed to be Hidden. Once in a Hidden status, the naval unit is not subject to attack. Use the Enter/Hidden markers provided to track these two turns and when the naval unit goes into a Hidden status.

Design Note: *Several ships hid in the ice and arrived in Russian ports well after the span of the game.*

Keep the Hidden Ice marker on a ship in a partial ice hex that achieves Hidden status (if there is more than one ship eligible to become hidden in the partial ice hex, a single marker can apply to all eligible ships in the hex). These hidden ships have a VP value at the game end.

7.3 Coastal Hexes

Individual naval units and TF/TG can also enter coastal hexes. This is a hex that is **partially** composed of land. It costs 1.5 MPs to enter a coastal hex. See Terrain Effects Chart, Coastal and Norwegian Leads hexes.

7.4 Map Edge

Allied TF and individual naval units can exit the map off the western edge. Once a TF or naval unit exits the units cannot return to play, but the TF marker can be re-used (exception: the Convoy PQ-17 marker cannot be reused if it exits the map).

7.5 Movement Restrictions

The following rules limit/govern some aspects of movement during the game.

7.5.1 Home Fleet Operations During the actual battle, the British Home Fleet was under orders to avoid exposure to German air attack. Therefore, any Allied TF with a BB or CV cannot move into a Barents Sea hex (those east of the dotted dark blue line on the map). However, once per game, the Allied player may attempt to change these orders. At the start of any turn the Allied player rolls a single die, and modifies the result per the table below.

7.5.2 Home Fleet Operations Table

Die Roll	Restrictions
1-9	Cannot enter the Barents Sea
10	May enter the Barents Sea without further restrictions

DR Modifiers:

- +1 if Tirpitz is at sea in a detected TG
- -2 if convoy PQ-17 has scattered

Design Note: *This rule pertains to the historical game only and reflects Admiralty orders to not risk heavy/capital warships in northern waters. Even the possible leeway given here is contrary to those orders.*

7.5.3 Convoy PQ-17 This is the only Allied non-Soviet TF permitted to move east of the line marked 30 degrees east (marked with a dotted red line on the map). No other Allied TF or naval unit can cross this line.

Exception: *Any Allied units marked with a red asterisk on the counter front that left convoy PQ-17 may move east of the line 30 degrees east.*

7.5.4 Soviet Naval Units Any Soviet TF or surface warship naval unit (not SS) cannot move west of the 30 degrees east line. These naval units may not join a TF with any other Allied unit.

7.5.5 German Warship Operational Limit When a German TG departs the Norwegian Leads and then later returns to a port hex in Norway, it has assumed to have concluded its operations. All naval units assigned to that TF are removed from the game.

7.6 Movement Limitations

Due to the following rules (Cases 7.6.1 through 7.6.4) a TF/TG can be marked with -1/-2 MP markers. To maintain ambiguity on whether a TF/TG on the board is a dummy or real, these markers are placed on the TF/TG (real as well as dummy) units on the map to aid with deceiving the player's opponent. Up to two of a TF/TG's available MPs could be absorbed by penalties. However, movement penalties do not carry over to the next turn; all -1/-2 markers are removed at the end of the turn. If a ship in a TF/TG with a movement penalty detaches from the TF, it carries its movement penalty marker to its new TF or with it when it is placed onto the map.

7.6.1 TF/TG Reorganization During the Initial Phase, any TF/TG that was newly formed, or an existing TF/TG that combined or divided in any way with another TF/TG, loses one MP.

7.6.2 Carrier Operations Any TF with the CV unit that conducts a strike mission (not CAP) expends one MP. This cost is in addition to any hexes entered during movement. A TF cannot conduct a strike unless it has adequate MPs to do so.

7.6.3 Extensive Maneuvers When a unit moves using maximum movement, any movement penalty marker is multiplied by 1.5 times. For example, a -2 MP marker results in a 3 MP penalty.

7.6.4 Surface Combat Whenever the activated TF/TG engages in surface combat, its movement is affected depending on the number of rounds the surface combat lasts. Once initiated, surface combat continues until disengagement takes place. However, using the table below, the active TF could

have MP remaining after the surface combat, and could therefore continue to move after the conclusion of the surface action.

Surface Combat MP Penalty Table

Rounds	MP Cost
1-3	1 MP
4-6	2 MPs
7+	All MPs

Note: All MP costs are multiplied by 1.5 times if using maximum movement.

7.7 Reaction Movement

A TF/TG of either side may immediately move to intercept an enemy TF/TG if the enemy TF/TG moves within 2 hexes of it. This reaction movement can be exercised at any time when an enemy TF/TG is within 2 hexes, but it can only be attempted once during the opposing TF/TG's movement.

Note: A TF/TG cannot exceed its MP capability when moving to intercept.

If the reacting TF/TG is successful in gaining a detection (using the Detection Table, see the Player's Aid Card), then the intercepting TF/TG is moved to the activated enemy's hex where the interception occurred and surface combat immediately ensues. If unsuccessful, the TF/TG which attempted the interception remains in its original hex and the enemy TF/TG continues with its activation and movement (if it had more MP to expend). Even if intercepted, and forced to engage in surface combat, the active TF/TG may be able to continue moving per Case 7.6.4.

Example of Play: A German TG containing Tirpitz begins its activation in hex 2321. Nearby is the Allied Cruiser Force in hex 2232 and PQ-17 in hex 2122. The German TG is activated and tries to move around the Cruiser Force to attack the convoy. The Allied player waits until the German TG moves within one hex of the Cruiser Force and attempts an interception which is successful. The Cruiser Force TF is moved into the hex where the German TG is located and surface combat occurs. The ensuing surface combat lasts only two rounds before the German player disengages. The 2-round surface action only cost one MP which means the German TG still has enough MP to attack the convoy.

7.8 Damaged Naval Unit Movement

When a naval unit is damaged, the owning player can decide to have the ship detach from its TF/TG at the end of the activation sub-phase when it was damaged. If the choice is made at this time, there is no MP cost for detaching damaged units. When detached, the damaged naval unit is removed from the TF Deployment Display and is placed directly on the game map in the hex where it was damaged. Any damaged naval unit placed in this way is considered to be detected. The owning player can detach any number of escorting naval units from the parent TF/TG to escort a damaged naval unit. Detachment of damaged naval units permits the parent TF/TG to move at a greater speed with its remaining undamaged naval units. In the next Initial Phase, the owning player may create a new TF/TG for the detached damaged naval unit(s) and its escorts if any such units are available. To do so, the owning player may create a new TF/TG from any currently unused TF/TG marker. The new TF/TG moves when activated in the usual manner. If no unused TF/TG marker is available the damaged naval unit remains on the game map in full view and is always considered to be detected. It cannot be activated via TF/TG Activation Marker, and moves only in the Terminal Phase. Once a damaged naval unit detaches, the damaged naval cannot rejoin any existing TF/TG (but again, it can create its own TF/TG per this rule). Every damaged naval unit must proceed to the nearest base as quickly as its movement allowance allows (maximum speed is not allowed) and as follows:

- All damaged Allied naval units proceed to the west edge where they exit (they are assumed to be going to Iceland). Damaged Allied naval units from convoy PQ-17 (those marked with a red asterisk on the front of the counter) can also proceed to the Kola Inlet (Murmansk).

- Damaged German naval units can proceed to any port in Norway.

When damaged naval units reach their destination, they are removed from the map and thus suffer no additional attacks.

7.9 Fuel Consumption



A TF/TG moving at regular speed can do so for the entire game. When a TF/TG uses maximum speed, place a "Fuel 1" marker in the TF's box in the TF/TG Deployment Display.

When a unit uses maximum speed a second time, flip the marker to its "Fuel 2" side.

A TF/TG with a Fuel 2 marker must refuel immediately the next time it is activated. For an Allied TF, this is done by simply placing a -2 MP marker on the TF and removing the Fuel 2 marker. A German TG must return to a base in Norway by the most expeditious route after its second turn of maximum speed (and therefore be removed from the game, Case 7.5.5). The TG may not use maximum speed again while moving to base.

When a TF/TG is reorganized, the new TF/TG assumes the Fuel marker of the naval unit(s) joining with the most restrictive fuel level. Example: If a new Allied TF is formed and all naval units have no Fuel markers except one destroyer which has a Fuel 2 marker, the entire TF assumes the Fuel 2 marker.

Design Note: The handling of fuel is handled abstractly. Suffice it to say that no ship was lost during the war because it could not return to base due to lack of fuel, so normal logistic functions are factored into the game. Nevertheless, players will have to be aware of their overall fuel condition by carefully conserving when they can use maximum speed.

8.0 AIR UNITS

In general, air units fly once per day, except those on carriers which fly every turn. If this is the Terminal Phase of the last turn of the day, all Allied and German air units are moved from the Flown boxes in their respective displays to the Ready box of the airfield or TF they are based on.

8.1 Allied Carrier-Based Air Units

The aircraft carrier *Victorious* has five assigned aircraft units. Each TF display has a number of boxes for the aircraft assigned to the carrier within the TF (the *Victorious* can switch to other TF from the Home Fleet TF if the Allied player so desires at some point in the game). These boxes are Ready, CAP, and Flown. At the start of each day, all units start in the Ready box. During the Initial Phase, units designated to fly CAP over their own TF are placed in the CAP Box.

Allied TB-type carrier-based units can fly strike missions. When activated, these units can attack a detected German TG within range. When determining the range of a strike mission, the hex of the carrier is not included, but the hex of the target is. After combat is resolved in the target hex, carrier-based air units are placed in the TF's Flown box and the air units are flipped to their reduced side. The units can fly another mission (or missions) that day, but do so at the reduced strength, and if so remain reduced when returned to the TF's Flown box (the units are not eliminated). In the Terminal Phase of the last turn of the day, all Allied carrier aircraft units are moved to the Ready box in their TF and returned to their full-strength sides. This includes units which were reduced as a result of combat.

Note: The *Albacore* (817 sqdn.) air unit only has 1 step but can do a second mission. Rotate the unit after its first mission (do not flip it) to denote this.

8.2 Combat Air Patrol (CAP)

Fighter units (only) can conduct CAP. Units assigned to CAP missions over their own TF stay in their TF CAP box throughout the day.

8.3 Aircraft Carrier Destruction

If the carrier *Victorious* is destroyed or damaged to the point it is unable to operate aircraft, its air units are permanently removed from the game. Any damage level on the carrier's Damage Roster which is underlined means the carrier can no longer operate aircraft.

8.4 German Land-Based Air Units

There are six German land-based air formations in the game, each with its own marker for placement in the Activation Pool. The subordinate units of each formation must always be based together at one of the German airfields. Each air unit is color-coded as to its subordination.

When a German air formation is activated, the German player can conduct strikes by its air units against any detected Allied TFs or naval units in range of the air formation's airbase. Unless the special Event Activation Marker Massed German Air has already been drawn (that enables the German player to use several air formations at once in an air operation), the activated air formation must attack solely with its subordinate air units. The air formation's air units may attack as many Allied targets as there are air units in the activated formation. The timing of the air unit's activation is critical. If there is no detected TF within range at the time the air formation is activated, or the Massed German Air Event Activation Marker is not in play, then the just activated air formation cannot attack (and the draw of its formation Activation Marker essentially wasted for the turn).

8.5 German Air Unit Range

Most German air units determine range using two criteria. Each unit has a range factor that it uses to trace from its base airfield. Ju-87 and He-115 units use this range to determine how far the unit can fly from its base airfield. However, Ju-88 and He-111 units cannot fly beyond the German Attack Radius indicated on the game map (black dotted line).

8.5.1 Soviet Airfield Limitation No German air unit can fly within two hexes of a Soviet airfield.

8.6 German Air Bases

When a German air unit conducts a nontransfer mission, it returns to its original base airfield and is placed in the Flown box. Each air unit can fly a single mission per day. During the Terminal Phase of the last turn of the day, all air units are moved to the Ready box at its airfield.

Each airfield has a maximum basing capacity which is indicated on the airfield's holding box on the map. German air units can transfer between bases by flying a normal mission. This counts for their one mission per day limit.

8.6.1 German Air Base Restrictions The Kirkenes air base can only hold units from Stukageschwader 5 (air units with the orange circles). The two He-115 air units (with purple circles) can only be based at Trondheim, Tromsø, or Alta (these are floatplanes). German airfields or floatplanes at naval bases cannot be attacked by Allied units.

9.0 CONVOY PQ-17



These rules govern the play of the units assigned to convoy PQ-17, the focus of this naval campaign.

9.1 Convoy Assignment

All merchant and close escort naval units that are part of PQ-17 are marked with a red asterisk on the front side of the counters. Close escort naval units of convoy PQ-17 are defined as those naval units assigned to the

convoy that are not merchant naval units (types MT and TA) and are the Anti-Aircraft (AA), Anti-Submarine Trawler (AT), *Flower-Class* Frigates (FF), Rescue (R), Minesweeper (MS), and Destroyer (DD) naval units. Each of the close escort naval units must be part of the convoy throughout the game unless the unit has been sunk, damaged, or temporarily detached (for example to fight off submarine shadowing, Section 13.7). Merchant naval units and close escorts may never permanently depart the convoy (that is, these naval units can never be assigned to new TF).

Exception: *Destroyer naval units assigned to the convoy can permanently depart the convoy and form a new TF or join existing ones. Once they detach from the convoy for any reason, these units cannot later rejoin PQ-17.*

9.2 Convoy Movement

During each turn convoy PQ-17 must move into a hex east, northeast or southeast. In Scenario 13.2, the Allied player may move the convoy to the west, northwest, or southwest for a maximum of three turns before the requirement to move continually to the east towards its destination is reinstated. When the convoy reaches Murmansk (hex 3617), it has reached its destination. Remove all remaining naval units from the Convoy Display since they are no longer subject to further attack.

Design Note: *Unless the convoy takes a direct route to Murmansk, an extremely unwise course of action, the convoy will not reach its destination during the span of the game. This means that games will end with the convoy actually far short of its destination, which reflects the actual planned arrival date to various ports in Russia.*

9.3 Convoy PQ-17 Display

All naval units assigned to the convoy are maintained on the Convoy PQ-17 Display. The naval units are placed in either the core or the screen, which are each made up of several numbered squares. All type MT and TA naval units must be placed in the top-most spaces of the core (ones at the opposite end of the Rescue spaces on the display), with no more than one of the merchant naval units to a space. Note that there is a special area for rescue (R) naval units at the rear of the core, which can only be occupied by these type naval units, and again no more than one R type unit to a space. Escort naval units can be placed either in the screen or in any space in the core, and may be stacked with any MT or TA-type ship that also occupies the space (but no more than one escort naval unit to any space on the display).

Placement of naval units on the convoy display can only be changed during the Terminal Phase. During the Terminal Phase, the topmost rows of the core must be filled and the Allied player can adjust the screen as desired.

9.4 Convoy Scatters



When/if the *Tirpitz* is detected on or north of the 2400 hex-row, or comes within 4 hexes of the convoy, the Allied player immediately places the Convoy Scatters Event marker in the Activation Pool. Also, if *Tirpitz* is not detected for two consecutive turns beginning on July 4, the Allied player places the Convoy Scatters Event marker in the Activation Pool.

When the Convoy Scatters Event marker is drawn, the convoy scatters and the following events occur immediately:

- Any DD naval units assigned to the convoy form a new TF; if no TF marker is available, place them on the map until one becomes available (note: this means they are always detected!). The new TF/units are placed in one of the three hexes located to the west, southwest, or northwest of the convoy's location hex. This hex is selected by the Allied player.
- All merchant naval units (MT and TA type) with the same MP are placed in four equal groups in the original hex of the convoy and the three adjacent hexes to the east, northeast and southeast of the original convoy hex. Naval units cannot be scattered into a partial ice hex—and in that

case the merchant naval units are placed into the other valid, required (eastern) hexes. Any close escort naval units (AA, AT, MS, FF) are randomly placed in equal numbers in the same hexes the merchant naval units scattered to. (Draw the units from an mug, envelope or something similar.) If the convoy has not moved in the current turn, the scattered naval units move immediately. If the convoy has already moved this turn, place the naval units in their scatter hexes. In their first movement, scattered naval units must move their maximum speed along an easterly, northeasterly, or southeasterly heading, while remaining together, and not joining any other scattering naval units. After the first turn of moving in a required direction, the Allied player is free to move them any direction that player chooses, as long as the naval units never move to the west.

- Once scattered, the convoy can never be reformed.
- After scattering and making their initial directional move, the maximum number of merchant naval units allowed in any hex is five. Close escort and rescue naval units originally assigned to the convoy may stack in any number with merchant naval units.
- Merchant naval units and their escorts may not form a TF, must remain in full view on the map, and are always considered detected. These units may only move in the Terminal Phase.

Exception: see Section 7.2.

When the convoy comes under surface attack, the Allied player can also decide to scatter the convoy (Case 11.4.13).

10.0 DETECTION

A TF/TG must be detected before it can be attacked by either air or surface forces. Submarines can detect a TF/TG in order to attack it, but this does not put the TF/TG into a detected status (Section 13.5). When activated, each (non-dummy) TF/TG may attempt to detect any enemy TF/TG within its search range. For a TF/TG without a CV, CA/CL, or BB type naval unit, this means any enemy TF/TG in its hex. A TF with the CV *Victorious* has a greater search range, and those with a cruiser or battleships also have an expanded search range. If detected, the affected TF/TG is flipped to its detected side (one with the TF/TG identification). The detected status remains with the TF/TG until the weather in the area where it is located changes to fog, or until the Terminal Phase when it reverts back to undetected status (flipped to its “?” or blank side). **Units in a port cannot be attacked as they cannot be detected while in a port.**

10.1 Surface Search

A TF/TG can always search the hex in which it is located; this includes any hex the TF/TG moves through during its movement. Only one detection attempt can be made per hex during each phase a TF/TG is activated.

If opposing TF/TGs are in the same hex, both must conduct searches against the other. This is the only occasion when the player not moving an activated TF/TG can conduct any search action.

10.2 Air Search

Each player has two special Event Activation Markers that permit searches by land-based aircraft of all enemy TF/TGs or Convoy Markers, and hidden naval units, on the map in a full-sea hex using the Search Table. Any Allied TF with the carrier *Victorious* can use its aircraft to search within 6 hexes of its TF marker. For a TF/TG with a BB or CA/CL, this air search range is 2 hexes. This search is made at any time during the TF/TG’s activation. Searches may (player’s choice) be attempted against any/all enemy TF/TG markers within range during the TF/TG’s activation.

10.2.1 Air Search Procedure The Search Table (Player’s Aid Card) is used to resolve all search attempts by both players. The player with the TF/TG being searched for rolls the die secretly, and after avoiding the temptation to alter the result (play nice!), applies all modifiers called for on the Search Table. Possible results include:

- **No Detection:** The searching player is told nothing about the enemy TF.
 - **Detection Gained:** The searching player is told that there is an active TF/TG in the hex and it is turned over to its detected side. A dummy TF/ TG is removed.
 - **Ambiguous Detection:** Some ambiguity is called for in the report, e.g. number of naval units by type + or -#, the detected player can “fuzzy” the number of any naval unit type present, but cannot add non-existent types into the report. Also, if present, a ship type must be reported as present in some number, in other words, the ambiguity allowed cannot bring a ship type total to zero. The types that must be mentioned in any report are CV, B, CA/CL, DD, close escort, and merchant (types MT and TA). All dummy TFs are removed if detected in this manner.
 - **Accurate Detection:** This is self-explanatory; all naval units must be accurately reported and any dummy TF/TGs removed.
- Note:** See Shadowing, Section 13.6

Example of Play: The Home Fleet TF (with the carrier *Victorious*) is searching for a German TG within its 6-hex range. The Home Fleet TF is seven hexes away. The TF is activated, and moves a single hex to bring it within the *Victorious*’ air search range, at which point the Allied player declares a search. The roll on the Search Table is a “7” which is not modified. The final result is a report “Number of naval unit by type + or - 2”. The German player informs the Allied player, “I have an active/real TG present in the hex with one BB, four CA, and one DD. Because of the secret DR, the Allied player does not know how accurate this report is, but does know that a large force is present and that it contains at least some heavy warships.

11.0 COMBAT

There are three forms of combat in the game: air to surface, surface, and submarine.

11.1 Air to Surface Combat

Once detected, a TF/TG or naval units in a hex can be attacked by activated air units. The steps outlined below are conducted to resolve air attacks on surface naval units.

Note: A slightly different procedure is used to resolve air attacks against convoy PQ-17.

1. **Attack Designation.** The active player announces he is attacking a detected enemy TF/TG and, in the case of the Allied player, designates all participating air units from the TF Ready box on his TF Composition Chart; the German player designates which land-based air formation (or formations) is making the attack.

2. **CAP Combat Resolution.** Any air units assigned to CAP in the CAP box of the TF being attacked can intercept the attacking air units.

3. **Air Battle Naval Unit Deployment.** If any attacking aircraft survive CAP combat, the player being attacked places all of the naval units in his TF/ TG on the Air Battle Display. Place a maximum of one ship in each area.

Note: Mark the map hex with the Battle Hex Marker if the targeted naval units are not part of a TF/TG.

4. **Air Unit Deployment.** The attacking player places his air units on the same areas as the naval units that player wishes to attack. There is no limit to the number of attacking air units that can be placed in a single area.

5. **Resolve Anti-Aircraft (AA) Fire.** The order of AA attacks is determined by the player owning the naval units being attacked (see below).

Each naval unit being attacked can only fire at the air units attacking it. As each air unit attacks, a naval unit can fire AA against it. It may fire as



many times as there are air units attacking it. Use the Antiaircraft Table to determine the AA attack results. Against B type air units, naval units in adjacent areas to the one being attacked, and which themselves are not being attacked and have an AA value of 4 or more, can fire at any single attacking air unit with half their AA strength. Against T type aircraft, up to two naval units (each with an AA strength of 4) in adjacent areas to the one being attacked and which themselves are not being attacked, can fire at a single attacking air unit with half their AA strength. All naval units fire separately, and all results gained from the Antiaircraft Table are cumulative.

Results on the Antiaircraft Table give a number which provides a die roll adjustment on the aircraft unit's attack and a possible step loss. It is possible that a unit could lose both steps and be destroyed in a single attack. If it is destroyed, the aircraft unit does not attack.

6. *Resolve Bombing Attacks.* This is done by taking the attack factor of the air unit and finding the appropriate column on the Damage Table (Player's Aid Card). After applying all DR modifiers that resulted from AA fire, and any other appropriate modifiers from the Damage Table, the attacking player rolls a single die and finds the result. Each air unit attacking a ship resolves its attack separately.

7. *Record Ship Damage/Critical Hits.* As indicated on the Damage Table, if a T type aircraft inflicts a damage point, the number of point losses are doubled. When a naval unit suffers its first hit, flip it over to its reduced side. Those naval units that can only take one hit have a blank side and are removed from the game (sunk). A unit that has reduced factors on its reverse side can take one hit and is removed (sunk) if it takes a second hit. Some naval units can take more than 2 damage points, and this is recorded on the ship's Damage Roster (these have ? in the circles on the unit's reverse side instead of Hit and Movement factors). In some cases, but only to CA, BB, and CV type units, the damage can result in a critical hit. Roll on the Critical Hit Table and record the results immediately.

Note: If a target naval unit is sunk before all designated air units conduct their attack, the excess attacking air units cannot select a new target. These units are considered to have attacked the sinking naval unit making their attack wasted in game terms.

11.2 Air Attacks Against Convoy PQ-17

The process of attacking convoy PQ-17 is modified slightly from what is described above.

11.2.1 Torpedo Bomber (TB) Attacks Using the PQ-17 Convoy Display, attacking TB type air units are placed in squares in the screen, with only one air unit allowed per square. Once placed, any escort in that square can fire at the air unit using the Antiaircraft Table. Air units can either attack the surface ship in that square, if any, or advance into an adjacent square in the convoy core. Once in the core, the naval unit in the square with the air unit can attack the air unit. Any escort unit with an AA strength of 4 or more can also fire on the air unit with its full AA factor if it occupies the same or an adjacent square. As during air attack against surface combatants, a targeted ship can fire at each and every air unit attacking it, but escorts can only fire once during the air attack. After AA fire is resolved, the air unit can attack the ship in the square it occupies or it can advance to the next square, repeating the procedure until it finally commits to an attack. Note that TB type air units attacking from some screen squares will suffer an unfavorable DRM. These are indicated on the Convoy Display.

11.2.2 Regular (B) and Dive Bomber (DB) Attacks The German player selects any square in the core or screen to place his attacking B and DB type air units. The target of the attack can fire AA, as can any escort present in the same square. Escorts with an AA strength of 4 or more can also fire on the air unit from a range of two squares. As above, the target ship can fire at every air unit attacking it, but escorts can only fire once during the air attack.

11.3 Air-To-Air Combat

Only fighter aircraft can initiate air-to-air combat. This only occurs if an air unit attacks a TF with CAP (that includes the carrier *Victorious*).

11.3.1 Combat Air Patrol (CAP) The carrier *Victorious* can use F units to perform CAP over its own TF. Air units performing CAP over their own TF are placed in the TF CAP box during the Initial Phase of each day turn. If a CAP mission is present over a TF that is the target of an air attack, the following procedure is used to adjudicate combat. Total the number of fighter combat factors on CAP, find the appropriate column on the Air-to-Air Combat Table, and the CAP player rolls a die (Player's Aid Card). The result is the number of attacking air unit steps destroyed. The owning player selects which air units suffer any step losses, but every unit present must have been reduced to its single step side before any attacking unit is destroyed. Each attacking air unit that was attacked, including any that were destroyed or damaged, can then fire back at the CAP air units and possibly destroy a step of the fighters with a DR of "10." Surviving attacking air units then conduct strikes against naval unit targets.

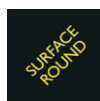
Example of Play Against a TF: The German player has launched a strike of I/KG 30 (6 Ju-88 units) on the detected Home Fleet TF that includes the aircraft carrier *Victorious*. Both Allied fighter units are on CAP. Air-to-air combat between the CAP aircraft and the six-bomber unit are resolved first. The Allied player has 8 air-to-air factors. The roll is "7," which eliminates a single step of the German bomber air units, so one bomber unit is flipped over to its reduced side. This unit fires back at the fighter, but rolls a "9" and misses. The six surviving German strike aircraft (with one now reduced) then conduct their attack on the Home Fleet TF.

The Home Fleet TF includes the *Victorious*, two battleships, two cruisers, and twelve destroyers. All of the naval units are removed from the Allied player's Convoy Deployment card and placed one naval unit to an area on the Air Battle Display. The German player decides to attack the carrier with all six aircraft and all are placed in that naval unit's area. The first unit to attack is undamaged and has a bomb factor of 4. *Victorious* fires its AA first, using the "12" column of the Antiaircraft Table. A DR of "7" results in a -2 DRM being imposed on the bomber unit's attack. Next, the Allied player selects one of *Victorious*' escorts in an adjacent area to fire. The cruiser *Nigeria* is selected; it fires on the "3" column of the Antiaircraft Table (its full AA strength of 6 is halved). A DR of "5" results in another -1 DRM being imposed on the bomber's attack (now -3 DRM). There is also another -1 DRM because a B type unit is attacking the CV (for a total of -4 DRM; this reflects the carrier's armored flight deck). The air unit now conducts its attack, with the German player rolling on the "4" column of the Damage Table; a DR of "8" is reduced to 4 by the -4 DRM, with the final result being a miss. The next unit to attack is the other undamaged KG 30 unit. *Victorious* again fires her AA, using the "12" column of the Antiaircraft Table. A roll of "2" results in a miss. Not wanting to allow this bomber to attack *Victorious* without a DRM, the Allied player selects the BB *Washington* in an adjacent area to fire its AA (the *Nigeria* could not perform another AA attack as an escort to the *Victorious* which is the target). The *Washington* fires on the "7" column of the Antiaircraft Table (its full AA strength of 18 is halved, and the 7 column is the closest one). A DR of "6" results in a -2 DRM. The bomber now conducts its attack, with the German player rolling on the "4" column of the Damage Table. A DR of "9" is reduced to 6 by the -2 DRM from the AA fire and another -1 DRM for a B type unit attacking a carrier. The final result is 1 damage point. *Victorious* is flipped to her reduced side and the hit recorded on the Allied Ship Damage Roster. The remaining four Ju-88 bomber units attack in turn, with *Victorious* using her reduced AA value. If additional damage is taken, it is marked on the Allied Ship Damage Roster.

Example of Play Against Convoy PQ-17: The German player has launched a strike of two He-115 torpedo bomber (TB) units from 1/906 against detected convoy PQ-17. The Allied player deploys the naval units

in the convoy to the Convoy PQ-17 Display. The German player then places the two air units in squares in the screen without any Allied escorts, thus avoiding AA fire from those naval units. The German player also places his air units on the beam/side of the convoy to avoid the -1 DRM from attacking from ahead or astern of the convoy. The first air unit, placed on square Screen-12 of the Convoy PQ-17 Display, now enters square Core-9 to attack a merchant ship present there. This merchant ship fires its AA first, using the "2" column of the Anti-aircraft Table. A roll of "7" results in a -1 DRM. Though the Allied player has an escort with an AA factor of 4 in an adjacent square to the merchant ship under attack, that player saves it to protect another merchant ship under attack nearby, hoping that the -1 DRM already gained will be sufficient to spoil the TB unit's attack. The air unit now conducts its attack, with the German player rolling on the "5" column of the Damage Table. A DR of "7" is reduced to 6 by the -1 DRM, and this results in a single damage point. Because this is a TB type air unit (see Section 11.1, Step 7), the number of damage points is doubled, which is sufficient to sink the merchant ship. The remaining 1/906 He-115 unit attacks in turn.

11.4 Surface Combat



This type of combat is conducted in rounds. After both sides have set up their naval units on the Surface Combat Display (printed on the game map), each round is composed of the following segments:

1. Movement Segment
2. Gunnery Segment
3. Torpedo Attack Segment
4. Air Attack Segment
5. Disengagement Segment
6. Ship Placement Adjustment Segment

11.4.1 Surface Combat Initiation If a TF/TG of the active player has moved into the same hex as a detected enemy TF/TG or enemy naval units not in a TF/TG, or is activated in the same hex as a detected TF/TG or hex with enemy naval units, surface combat is initiated. The active player can also move into a hex with an undetected enemy TF/TG, detect the enemy TF/TG, and then initiate surface combat. Also, the non-active enemy TF/TG in the hex can initiate surface combat by successfully detecting any enemy TF/TG that moves into its hex. All naval units from the active TF/TG and all detected enemy TF/TG in the same hex are removed and placed on the Surface Combat Display (located on the game map).

11.4.2 Surface Combat Deployment If detection occurs, the naval units of the opposing TF/TG are placed on the tactical display (if only individual naval units are involved, mark the hex where the battle occurs on the map with the Battle Hex Marker and then remove the units to the Surface Combat Display). Each player divides the naval units of his TF into at least one but no more than four groups, and rolls individually for the placement of each in the space corresponding to that player's DR result. Note there are two different Surface Combat Display area groupings; one is used for clear and another for fog weather conditions that are in effect for the hex where the surface battle occurs.

There are no stacking limits in the Surface Combat Display.

11.4.3 Surface Combat Movement Segment Naval units move on the Surface Combat Display during the Movement Segment of a Surface Combat Round. Each player rolls the die; the player with the higher DR has the option of moving first or making his opponent do so. It costs 1 MP to enter an area. Using their movement factor, naval units move as many areas as desired up to the unit's printed movement factor (maximum movement is not allowed). Naval units can move into or through areas occupied by friendly or enemy naval units without hindrance. Remember, movement factors are reduced if the naval unit's TF/TG is marked with -1/-2 MP marker.

At the start of the Movement Segment in the next round (if one is played), all movement penalty markers are removed, and any naval units that were rotated to denote they moved or fired in the last round are rotated back to regular facing.

11.4.4 Gunnery Segment During the Gunnery Segment, both players execute combat. Gunnery is simultaneous with all results being applied only after both sides have fired. Each player fires any or all of his naval unit's gunnery factors by selecting any target within range (count the number of areas to the target, but not the firing unit's area). Both players are required to designate targets before resolving combat, and each naval unit's attack is resolved before proceeding to the next (i.e., naval units do not combine gunnery factors if attacking the same target; each attack is resolved individually). Once the target is designated it cannot be changed. Battleships and some German cruisers have both main and secondary batteries. Each fires separately. These can be designated to fire at separate targets or against the same target.

To resolve combat, reference the attacking naval unit's gunnery factor, find the appropriate column on the Damage Table (Player's Aid Card), and roll a single die, applying all relevant DR modifiers. Results are applied after all naval units involved in the Surface Combat have fired. Each naval unit fires separately at a target. More than one naval unit can fire at the same target, but all naval units after the first firing at the same target have their gunnery factor halved. After the Gunnery Segment, rotate all naval units that fired.

11.4.5 Sighting When clear weather is in effect, the sighting range on the Surface Combat Display is unlimited. In fog weather, the maximum sighting range is 8 areas. Only USN cruisers (CA) and the BB Washington can fire beyond the 8-area sighting range in fog up to their maximum range, but suffer a -2 DRM when doing so. Torpedoes cannot be fired at naval units in fog beyond the 8-area sighting range.



11.4.6 Smoke All DD and TB type naval units can lay smoke. This is done during these naval units' movement. Each DD or TB can place smoke in a single area during its movement segment by expending all of the unit's MP to do so. If the firing ship or its target is within two areas of a smoke marker, the firing ship has its gunnery or torpedo fire modified with a -1 DRM. Smoke is removed at end of each round.

11.4.7 Torpedo Combat Segment All units marked with a T have the capability to fire torpedoes. A naval unit using its torpedo attack capability is considered to have fired all its torpedoes and has the T crossed off on its ship's Damage Roster. For British and German units, each ship with a "T" capability selects a target and uses the "4" column of the Damage Table. USN units fire torpedoes using the "2" column. Normal range for German and USN naval units is 3 areas. Subtract 1 from the DR for each area beyond 3 up to a maximum of 7 areas. Normal range for British units is up to 5 areas. Subtract 1 from the DR for each area beyond 5 up to a maximum of 10.

Note: The two Allied submarines assigned to convoy PQ-17 can also fire during this segment (Section 13.9).

11.4.8 Air Attack Segment During any clear (non-fog) turn, there is a possibility that an Air Attack Segment will occur during the surface combat round. This only occurs if a TF/TG that includes the carrier *Victorious* comes under surface attack and the carrier unit has aircraft units in the Ready box. If the Allied player so desires, that player can remove these units from the Ready box and immediately re-assign them to conduct an air attack mission against German surface naval units that are involved in the Surface Combat. This air attack occurs during any Air Attack Segment of a Surface Combat Round. The usual rules for air attack are in effect with the exception that only the target naval unit fires AA; no escort ships can allocate any AA fire in its defense. Results against the target are implemented immediately; additionally, rotate the target naval unit to indicate it fired should it survive the air attack.

11.4.9 Disengagement Segment At the end of each round, each player decides if they wish surface combat to continue. If both desire combat to cease, the combat is ended and the end of surface combat procedure is used. If neither player wants combat to end, surface combat continues for another round, up to a maximum of eight rounds. If only one player wants surface combat to continue, the active player rolls the die to determine if combat is concluded. Any modified DR of 10 or more immediately ends combat, and the end of surface combat procedure is implemented. After the first round, 1 is added to the DR for each round of combat already conducted. If the current weather condition is fog, add 2 to the DR. Convoy PQ-17 cannot disengage, so surface combat continues for as many rounds as the German player desires, up to the maximum number of eight.

Note: see Case 7.6.4.

Example of Play: *The Allied Cruiser Force with four CA and three DD moves into a hex with a detected German TG with CAs Lutzow and Scheer and six DD. The weather is clear. In the placement phase, the entire Allied force has been divided into two groups, both of which end up via the two DRs being placed in area 19. The German TG is also divided into two sections, and these end up being placed in areas 5 and 6. In the movement segment, the German player wins the DR and elects to move first. The German player moves his DDs to areas 10 and 11 while the two CAs do not move. The destroyers are rotated to show they moved. The Allied player decides not to move into a new area to maximize the chances of scoring gunnery hits. In the Gunnery Segment, the two German CAs in area 6 fire at two of the Allied CAs in area 19. There is a -5 DRM for firing at this range. Firing with their main batteries on the "7" column, the German player needs a 9 or 10 to hit, and misses with both DRs. The two German DDs in area 11 fire at the other two Allied CAs. The range is 8 areas (-3 DRM) and there is an additional -1 DRM because the naval units are rotated as moved. Firing on the "5" column, the German player needs a 9 or a 10 to hit. One DD misses, but the other hits. DD-type gunnery against CA-type naval units results in ½ the damage points rolled, but since fractions are rounded up or down, the single damage on a roll of 9 remains, and one of the CAs is flipped over to its reduced strength side, and the hit recorded on the CA's damage roster. The other 4 German DDs have no chance of hitting either the CAs (all naval units after the first firing at the same target have their gunnery factor halved) or the Allied DDs (-3 DRM for the range and -3 DRM for targeting a DD type unit), so these do not fire. Gunnery is simultaneous, and now the Allied player returns fire. That player decides to use the two USN CAs to target the German CAs in area 6. The range is 13 areas, so the DRM is -5. Firing on the "9" column, the Allied player needs a 9 or 10 to hit; both miss. The two British CAs fire at the German DDs in area 11. The range is 8 areas for a -3 DRM and there is a -3 DRM for firing on DD type units. Referencing on the "8" column, the Allied player needs a 10 to hit; both miss. The Allied DDs cannot fire effectively given the range and the -3 DRM for firing at DDs. There is no torpedo combat since the targets are all beyond the torpedo ranges of the involved naval units on both sides. In the Disengagement Segment, if either player wishes to disengage, a roll is made. The German player does not wish to take any losses from his TF and announces he will disengage. Since this is the first round, a 10 is needed to disengage. The active player (in this case the Allied player) rolls the die, rolling a 10, which ends the surface combat engagement.*

11.4.10 End of Surface Combat Procedure Once disengagement occurs, the players determine into which hexes to place their TF/TG and surviving naval units. If one player chose to disengage, then that player's TF/TG/naval units cannot remain in the combat hex. If the disengaging player moved into the hex to initiate combat, that player's TF/TG/surviving units return to the hex used to enter the combat hex. Otherwise, the player places his TF/TG/surviving units in the following order:

1. A vacant adjacent hex other than the one used by the initiating player to enter the combat hex.
2. A hex with a friendly TF/TG present within stacking limits.
3. The hex used by the initiating player to enter the combat hex, or

4. A hex with a friendly TF/TG or TF/TGs beyond stacking limits. This over-stacking causes all TF/TG present in the hex to receive a -2MP marker, and the over-stacked condition must be corrected at the earliest opportunity.

The TF/TG of the player that did not choose to disengage remains in the combat hex. If neither player chose to disengage and the surface combat was ended by a DR, the player with the most surviving BB, CA, and DD type naval units remains in the combat hex, and the other player places his TF/TG/individual naval units as outlined above. In the unlikely event of a tie in terms of naval units, then players should roll a die or flip a coin to determine who goes and who stays in the hex. If both players chose to disengage, neither TF/TG remains in the combat hex, and both players place their TF/TG as outlined above. For both players, all non-damaged naval units have to be placed in the same hex—a force cannot be divided. Don't forget, the active TF/TG may have MP remaining depending on the number of rounds in the surface engagement.

Note: see the Surface Combat MP Penalty Table on the Player's Aid Card.

11.4.11 Placement of Damaged Naval Units Damaged naval units may remain with their parent TF/TG or detach and remain in the combat hex. Don't forget, escorts can be detached to escort damaged naval units detaching from the TF/TG. If detached, they are placed directly on the map.

11.4.12 Ship Placement Adjustment Segment If naval units are approaching the edge of the Surface Naval Combat Display, move these naval units to the center of the Display, maintaining the existing relative distances between naval units. Players should use common sense in deciding which naval units to move how far and in what direction. Rotate moved naval units back to their regular orientation at this time.

11.4.13 Convoy PQ-17 and Surface Combat When placed for surface action, all of the convoy's naval units are placed in the location indicated on the Surface Naval Combat Display. The entire convoy (all MT and TA type naval units and the close escort naval units) are considered to be in the same group and deployed to the same area anywhere the Allied player desires on the Display. If desired, the convoy's DDs can be placed normally via DR or placed in the same area as the rest of the convoy's naval units. After initial placement, the entire convoy must move and stay in their set up groups for the first four rounds. After any subsequent round, the Allied player can decide to scatter the convoy. If this occurs, the convoy is split up as described in Section 9.4, and the convoy's naval units are placed on the map. The German player can elect to use any of his surface naval units to chase the convoy's group that remains in the original hex, or to disengage to attempt bring to battle another group in a different hex. If the existing surface combat continues for at least another round or after the maximum of eight rounds of combat are conducted the scatter rules take precedence over 11.4.10. Upon completion of eight rounds, all German naval units remain in the original combat hex.

12.0 NAVAL UNIT DAMAGE

Each naval unit possesses the capability to take hits equal to its damage factor. After the ship has suffered damage equal to its damage factor it is sunk. Before being sunk, some naval units have the capacity to incur damage that impacts their speed and fighting abilities. When a naval unit takes a single hit, and has more than a single damage point, it is flipped over to its reverse side. Some naval units have the ability to absorb more than 2 hits. Naval units taking more than 2 hits have this recorded on each ship's Damage Roster. As each space on the naval unit's Damage Roster is marked off, the naval unit's new speed and combat capability is indicated.

Naval units that have suffered any damage can no longer use maximum speed. Damaged naval units may immediately detach from their TF/TG as a result of damage once the battle is resolved.

12.1 Aircraft Carrier Damage

Certain damage levels on the *Victorious*' Damage Roster indicate that it loses its aircraft operations capability (these spaces are underlined on the *Victorious*' Damage Roster). If this occurs, all aircraft assigned to the *Victorious* are removed from the game.

12.2 Critical Hits

Some results on the Damage Table are also considered to be Critical Hits. Only CA, BB, and CV type naval units are affected by Critical Hits. Roll a single die on the Critical Hits Table whenever this type of naval unit is damaged. Apply any result immediately.

13.0 SUBMARINES

Submarines are represented by counters but are treated differently than other naval units.

13.1 Setup

At the start of the game, all submarine units are placed according to the setup rules as undetected (side with “?” showing).

13.2 Dummy Submarines

In addition to their real submarines, each player also receives a number of dummy submarine units (4x Allied, 5x Soviet, 10x German). These move as real submarine units, but when an enemy TF/TG or naval unit enters the hex, any dummy submarines are removed. Dummy submarines cannot move into or be placed into a hex with an enemy TF/TG or naval unit. Dummy submarines can be removed by the owning player during any Terminal Phase and placed back on the map during the same Terminal Phase. Allied dummy submarines can only be placed in their respective patrol areas. German dummy submarines can be placed anywhere on the map.

13.3 Submarine Movement

During the Terminal Phase of each turn, players may move their submarine units. Players take turns, starting with the Allied player, moving individual submarine units (real and dummy) until either all are moved or both players pass. German and Allied submarines can move up to three hexes; Soviet submarines can be moved one hex. Allied submarines cannot enter Norwegian Leads or coastal hexes. Submarines can move into or out of a hex with an enemy TF/TG or ship, but submarines cannot move through hexes with an enemy TF/TG or ship.

13.4 Submarine Movement Restrictions

In the historical scenario, Allied and Soviet units cannot leave their designated patrol areas as outlined on the map. No more than one Allied or Soviet submarine can be in a single hex (exception: Case 13.10). German submarines can move and stack without restriction.

13.5 Submarine Contact

When an opposing player traces the movement of a TF/TG or unit from, into, or through a hex containing a submarine, or activates a TF/TG or unit(s) in the hex but does not move out of it, the owning player of the submarine decides whether or not to announce a submarine attack (the player is not obligated to do so). **Submarines that remain in place in a hex CAN attack a TF/TG that also remained in place in the hex (i.e., did not move from, into, or through the hex).** If an attack is declared, the owning player rolls a single die and refers to the Submarine Attack Table (Player's Aid Card). Subtract one from the die roll for every four enemy DD, FF, AT, and TB type naval units present in the TF/TG or convoy.

Before the submarine attack continues to the target selection phase, the submarine player is given a detection report of how many total ship units are present and whether any of the following types are present: BB, CA/CL, CV, DD, MT, and TA. Following this detection report, the sub-

marine player selects his targets or has them picked randomly, per the Submarine Warfare Table (Player's Aid Card).

If contact is gained and an attack made, the convoy or TF/TG is not flipped to its detected side. In the Terminal Phase, when submarines are moved, the movement of submarines into a hex with a TF/TG/convoy does not initiate combat. The submarine must stop after moving into the first hex with a real enemy TF/TG/convoy. However, the movement of submarines into a hex with a damaged ship does initiate combat.

13.6 Shadowing

Instead of launching an attack, the German player can decide to have submarines attempt to shadow convoy PQ-17. After announcing that the submarines will shadow, the Allied player decides whether to detach DD or FF units from the screen to keep the submarines from shadowing. For each DD or FF unit so designated, the DR on the Submarine Warfare table is reduced by one. Units so designated are temporarily removed from the Convoy PQ-17 Display and cannot return until the next Terminal Phase. The attempt to shadow is adjudicated on the Submarine Warfare Table with an asterisk indicating success. Once shadowed, the convoy is marked with the Shadow Marker, and the shadowing submarine moves with the convoy when it is moved. Shadowing places the convoy into a detected status (and its on-map marker is flipped to its Detected side). Once established, the Shadow Marker is only removed as a result of weather. Whenever the weather goes to fog, the German player rolls a single die. With a DR of 1-5, the marker is lost. With a DR of 6-10 the Shadow Marker remains.

Note: Other Allied TF cannot be shadowed, only convoy PQ-17. If the convoy scatters the shadow is lost.

Example of Play: PQ-17 moves from hex 2644 into hex 2543 where U-251 is present. The German player can either attempt to attack or shadow; he declares he will attempt to shadow. The Allied player does not want this to occur at this point in the game and he detaches two FF-type units to prevent the sub from shadowing. These two naval units are removed from the screen and are not returned to the convoy until the Terminal Phase. However, the presence of the two FF type naval units prevents the shadow since they provide a -2 DRM and a successful shadow requires a roll of 9 or 10.

13.7 Submarine Combat

Using the Submarine Warfare Table (Player's Aid Card), the player owning the submarine unit(s) selects which type of naval unit he wants to attack, and one of those types is then chosen randomly for attack (if more than one of that type is present). Allied and German submarines fire on the “4” column of the Damage Table. Soviet submarines fire on the “1” column. Apply the attack result immediately. **Roll the die for each submarine in a hex eligible to attack.**

13.8 Submarine Attack Limits

All submarine units have the capability to launch up to four attacks during the game. This includes all attempted attacks on the Submarine Warfare Table, whether or not an actual DR is made on the Damage Table. This limit is tracked on each submarine's Damage Roster.

Submarines cannot conduct attacks while fog is in effect in the hex they occupy.

13.9 Anti-Submarine Combat

Whenever a submarine conducts an attack, it is exposed to a counterattack. For each submarine rolling on the Damage Table, the opposing player rolls a single die if there are any DD, FF, or MS naval units present in the hex with the submarines. If a 10 is rolled, the counterattack is successful; the submarine is sunk and immediately removed from the game. There are no DRMs to this roll. The counterattack occurs after the submarine

attacks. Perform this procedure after each individual submarine attacks, before moving on to the next, if multiple submarines are attacking.

13.10 Convoy PQ-17 Escort Submarines

The two submarine naval units assigned to convoy PQ-17 are treated as part of the convoy's close escort. They cannot be attacked by German aircraft. On the Surface Combat Display, these move as regular surface units (side with factors and unit ID showing) and can be subjected to gunnery attack. At the Allied player's discretion, that player can submerge the subs (by flipping them over to the side with the "?" showing). When this occurs, the submarine unit no longer moves, but can conduct a torpedo attack against any unit in range (attack range is three spaces), firing on the "4" column. Reduce this by one column for every German DD or TB type unit in the target's area. The submarines fire during only one Torpedo Combat Segment during a Surface Engagement, and use the torpedo rules for surface naval units, not the regular submarine combat rules (Case 11.4.7). In order to successfully conduct an attack, the submarine must roll a 1-5. If this attempt is unsuccessful, the submarine cannot attempt another attack during that Surface Engagement. If convoy PQ-17 scatters, the two submarines revert to their markers and move as other submarines.

Example of Play 1: U-88 and U-251 are in hex 2240 when convoy PQ-17 moves through their hex. The German player decides to attempt an attack. U-88 rolls a "9" on the Submarine Warfare Table, but since convoy PQ-17 has a total of 14 DD, FF, and AT naval units assigned to it, the DR is reduced by 3 to a "6," meaning the submarine can conduct an attack. Before the attack is resolved, the Allied player gives his contact report that 39 naval units are present in the TF including MT, TA, and DD type units. Now the German player selects the category to attack. In this case, he selects to attack MT type naval units. The Allied player places all these into an opaque container, allowing the German player to select one. The German player rolls the attack on the "4" column of the Damage Table. A DR of "8" results in 1 damage point, but when submarines conduct torpedo attacks, the damage points are doubled, which is sufficient to sink the MT naval unit. The final step is to see if ASW combat was successful. A roll of "7" indicates the counterattack is unsuccessful. The second sub, U-251, rolls a "5," adjusted to "2" for the presence of DD/FF/AT naval units, receiving a no attack result on the Submarine Warfare Table. Both submarines expended one of their four attacks for the game and this is recorded on the German player's ship Damage Roster.

Example of Play 2: German TG C with two DDs leaves Alta and moves through hex 3128, where a Soviet submarine is located. The Allied player decides to launch an attack. There is no DRM to the roll on the Submarine Warfare Table, since only two DDs are present. The Allied player rolls a "7," which is reduced to a "5" because of the -2 DRM for a Soviet submarine making the attack. This means the submarine cannot launch an attack, but the German player must make a detection report, "There are two naval units in the TF and there are DD type naval units present."

14.0 THE BATTLESHIP TIRPITZ

The BB *Tirpitz* begins the game in Trondheim. Whenever convoy PQ-17 is detected, *Tirpitz* can move from Trondheim to another port in Norway. *Tirpitz* can only transit in Norwegian Leads hexes, never in regular sea hexes. Once per game, the German player can attempt to activate the Knight's Move operation (Section 5.7), which allows the *Tirpitz* to sortie from port and enter regular sea hexes. Knight's Move can be activated if all these conditions are met:

- *Tirpitz* is located in a port
- Convoy PQ-17 is detected
- The Allied aircraft carrier *Victorious* has been detected and is more than 10 hexes from *Tirpitz*'s location.

If at any time these conditions are all met, the German player can activate Knight's Move by placing the Knight's Move Event Activation Marker in the Activation Pool. Once in the Activation Pool, the Knight's Move Event Activation Marker must be drawn before *Tirpitz*'s TF in order for *Tirpitz* to leave port. The *Tirpitz* is subject to recall by the Hitler Status Event Activation Marker (Section 5.8). If recalled, *Tirpitz* must return to the nearest base in Norway by the most expeditious route. Once this naval unit arrives back in port, *Tirpitz* is removed from the game. If the *Tirpitz* is ordered to return to port, all other German surface naval units must also return to the nearest port.

Variant Rule 14.1

For those that don't like the dramatic effect a single DR can have on their game, change the return to port effects in the paragraph above after the Hitler Status DR (see Section 5.8) is made by the German player to require only the *Tirpitz* and the naval units in its TG must immediately return to port. Award the Allied player 2 VP for every other German TG that does remain in play.

15.0 VICTORY CONDITIONS

At the conclusion of Turn 11, both players add the number of Victory Points (VPs) received during the game. Each player is awarded victory points based on the tables below.

15.1 German VP Awards

The German player is awarded VPs as indicated:

- 15 VPs—Allied CV sunk
- 10 VPs—Allied BB sunk
- 5 VPs—Allied CA or CL sunk
- 4 VPs—Allied TA sunk
- 3 VPs—Allied MT ship sunk

15.2 Allied VP Awards

The Allied Player is awarded VP as indicated:

- 1 VP—Each merchant ship reaching the xx16 hexrow or Murmansk
- 1 VP—Each merchant ship in Hidden status by the end of the game
- 30 VPs—BB *Tirpitz* is sunk
- 10 VPs—BB *Tirpitz* suffers more than 3 damage points
- 5 VPs—BB *Tirpitz* suffers 1 or 2 damage points
- 10 VPs—German CA sunk
- 2 VPs—German CA damaged in any way
- 1 VP—German DD sunk

15.3 Levels of Victory

Subtract the number of Allied VP from the number of German VP. The net result is compared to the table below.

Net Result	Outcome
<10 VPs	Major Allied Victory
<45 VPs	Allied Victory
>45 VPs	Draw
>55 VPs	German Victory
>75 VPs	Major German Victory

Example of Play: In the historical battle, the German player sank 15 MT and 1 TA naval units before the end of the game for a total of 49 VPs. The Allied player was able to place three naval units into Hidden status for a total of 3 VPs. The Germans had no BB, CA, or DD naval units lost or damaged. The net result is 46 VPs which meant the game ends in a draw.

16.0 SCENARIOS

There are two scenarios in the game.

16.1 Historical Scenario

There are 11 turns in the game covering the period from July 2 to July 5. The weather begins as fog in the Norwegian Sea and clear in the Barents Sea. The historical forces are listed below. Players may break them up into as many TF/TG as desired. Dummy TF/TG can be deployed at game start.

16.1.1 German Forces Set Up

TG A in Trondheim (hex 4645) comprised of the following:

- BB *Tirpitz*
- CA *Hipper*
- DDs *Freidrich Ihn* (Z14), *Hans Lody* (Z10), *Karl Galster* (Z20), *Theodore Reidel* (Z6).
- TBs T-7 and T-15.

TG B in Narvik (hex 3633) that is comprised of the following:

- CAs *Lutzow* and *Scheer*
- DDs *Richard Bietzen* (Z4), Z-24, Z-27, Z-28, Z-29, Z-30

In Alta (hex 3327):

- DDs *Erich Steinbrinck* (Z15) and *Friedrich Eckoldt* (Z16)

Submarines:

- 10 SS begin within 15 hexes of Jan Mayen Island (hex 3152). Only 2 can be with or within 1 hex of PQ-17, 2 can be within 3 hexes of PQ-17 and the remainder can be within 6 hexes of the convoy. These are: U-88, U-251, U-255, U-334, U-335, U-376, U-408, U-456, U-457, U-477, 10 dummy submarines can be deployed anywhere on the map the German player desires.

- In Narvik, SS U-657, U-703

Luftwaffe (Luftflotte) 5:

- In Bardufoss: 3/KG 30 (6x Ju-88 air units), KG 26 (4x He-111 air units)

- In Alta: 1/KG 906 (2x He-111 air units)

- In Banak: 1/KG 30 (6x Ju-88 air units), 2/KG 30 (6x Ju-88 air units)

A maximum of 10 Ju-88 air units from these two formations can set up in Banak. The other 2x Ju-88 air units can set up at any German airbase subject to airbase limits.

- In Kirkenes: I/Stukageschwader 5 (6x Ju-87 air units)

16.1.2 Allied Forces Set Up

All naval units are British unless otherwise indicated.

Convoy PQ-17 begins in hex 2644 (marked on the map with a red asterisk) with the following assigned units (all have a red asterisk on the front of the counter). The Convoy PQ-17 Marker begins the game on its detected side.

- MT and TA naval units: *Alcoa Ranger* (US), *Aldersdale*, *Azerbaijan* (USSR), *Bellingham* (US), *Benjamin Harrison* (US), *Bolton Castle*, *Carlton* (US), *Christopher Newport* (US), *Daniel Morgan* (US), *Donbas* (USSR), *Earlston*, *El Capitan* (Panama), *Empire Byron*, *Empire Tide*, *Fairfield City* (US), *Hartlebury*, *Honomu* (US), *Hoosier* (US), *Ironclad* (US), *John Witherspoon* (US), *Navarino*, *Ocean Freedom*, *Olapana* (US), *Pan Atlantic* (US), *Pankraft* (US), *Paulus Potter* (Netherlands), *Peter Kerr* (US), *River Afton*, *Samuel Chase* (US), *Silver Sword* (US), *Troubadour* (Norway), *Washington* (US), *William Hooper* (US), *Winston Salem* (US)

- Rs: *Rathlin*, *Zaafaran*, *Zamalek*

- AAs: *Palomares*, *Pozarica*,

- FFs: *Dianella*, *La Malouine* (French), *Lotus*, *Poppy*

- MSs: *Britomart*, *Halcyon*, *Salamander*

- ATs: *Ayrshire*, *Lord Austin*, *Lord Middleton*, *Northern Gem*

- DDs: *Fury*, *Keppel*, *Leamington*, *Ledbury*, *Offa*, *Wilton*

- SS: P614, P615

Home Fleet TF begins in any hex west of the xx47 hexrow with the following assigned units. The Home Fleet TF is not detected.

- BBs *Duke of York*, *Washington* (US)
- CV *Victorious* with 809, 817, and 832 Squadrons (5x air units)
- CA *Cumberland*
- CL *Nigeria*
- DDs: *Ashanti*, *Blankney*, *Escapade*, *Faulknor*, *Marne*, *Martin*, *Middleton*, *Onslaught*, *Onslow*, *Wheatland*, *Mayrant* (US), *Rhind* (US)

TF 1 begins in hex 1428 and is not detected:

- CL *Manchester*
- DD *Eclipse*

Cruiser Force TF begins within 2 hexes of 2644 and is not detected:

- CAs: *London*, *Norfolk*, *Wichita* (US), *Tuscaloosa* (US)
- DDs: *Somali*, *Rowan* (US), *Wainwright* (US)

Submarines (set up in their designated map areas, no more than one per hex):

- SS *P45* (Unrivalled), *P54* (Unshaken), *P212* (Sahib), *Minerve* (French), *Tribune*, *Trident*, *Seawolf*, *Sturgeon*, *Ursula*, 4x dummy Allied SS units can also be deployed or withheld for use later in the first turn and/or game.

Soviet Forces:

- DDs in Murmansk, hex 3617: *Gremyashchi*, *Grozny*.

- Soviet Submarines (begin in either Soviet submarine patrol area, no more than one per hex): SS *D-3*, *K-2*, *K-21*, *K-22*, *M-176*, *Shch-402*, *Shch-403*, 5x dummy Soviet SS units can also be deployed or withheld for use later in the first turn and/or game.

16.2 Armageddon in the Barents Scenario

This scenario has almost no basis in reality, but it does allow players to stage a major fleet action in the Barents Sea. This scenario ignores the historical restrictions on both sides and provides them maximum freedom of action. The same setup is used as in scenario 13.1. However, in this scenario, the following rules are not used:

- 5.7 Knight's Move
- 5.8 Hitler Status
- 5.9 Convoy Scatters Event Activation Marker (unless voluntarily chosen by the Allied player)
- 7.51 All Allied TG can enter the Barents and move up to the 30 degrees east line. Also, Cruiser TF and one dummy TF can now cross the 30 degrees east line.
- 7.5.4 German TG/naval units can come and go from port as the German player desires. When a ship enters port and spends 2 MP there, it can also remove a Fuel 2 marker.
- 9.4 Convoy Scatters events are ignored. The Allied player can still scatter the convoy during a surface action or at any time by placing the Convoy Scatters Event Activation Marker into the Activation Pool, but he is never forced to do so by events.
- 15.0 *Tirpitz* is now free to leave port whenever desired and is not subject to recall.

Victory Conditions and VP awards are the same as those listed in 15.0.

17.0 CREDITS

Game Design

Development

Graphic Design

Editing

Production Coordination

Playtesting

Mark Stille

Paul Rohrbaugh & Lembit Tohver

Mark Mahaffey

Jack Beckman

C. Rawling

Brian Brennan, John Mccaffey, Paul

Raith, Paul Rohrbaugh, Lembit Tohver, The Sunday Simulators

18.0 ADDENDA

18.1 Counter Addenda

18.1.1 Clarification: Submarines P614 and P615 have asterisks and are listed as being part of Convoy PQ-17 for historical and set up purposes. Per Module 13.0, however, these submarines move as all other submarines do in the game during the Terminal Phase of the turn and not with the Convoy.

18.1.2 Corrections: Nine Allied subs (P45, P212, N47, N59, P54, N76, N52, N73 and Minerve) are missing their “T” torpedo attack cap-ability icon on their front sides. These units can make torpedo attacks.

18.1.3 Corrections: Three Soviet submarine units (S402, S403, and D3) are missing their yellow 1/8 gunnery and range factors on their front sides. Four other Soviet submarines (K2, K21, K22, and M176) have 0 AA factors that should not be there.

Player can carefully ink these changes in on their own counters or print out the replacement front side images below:

Fronts:



18.2 Map Addenda

Correction: The 30 Degree Line rules reference should be to 7.5.3 (and not 7.2.3).

19.0 INDEX

1.0 INTRODUCTION	1
1.1 Game Scale	1
1.2 Rounding Convention	1
1.3 Activation Pool	1
2.0 GAME COMPONENTS	1
2.1 The Game Map	2
2.2 Game Charts and Tables	2
2.3 The Playing Pieces	2
3.0 GAME SEQUENCE OF PLAY	3
3.1 Initial Phase	3
3.2 Activation Phase	3
3.3 Terminal Phase	3
4.0 THE ACTIVATION PHASE	3
4.1 Activation Pool Determination	3
4.2 Activation Pool Selection	3
4.3 Activation	3
4.4 Air Formation Activation	4
5.0 SPECIAL EVENTS	4
5.1 Weather	4
5.2 Command and Control (C2)	4
5.3 Intelligence	4
5.4 Land-based Air Searches	4
5.5 Grounding	4
5.6 Massed German Air Event	4
5.7 Knight's Move	4
5.8 Hitler Status	4
5.9 Convoy Scatters	5
5.10 Tactical Advantage/Surprise	5

6.0 TASK FORCES/GROUPS	5
6.1 TF/TG Deployment	5
6.2 Convoy PQ-17	5
6.3 TF/TG Creation	5
6.4 Initial TF/TG Assignments and Limits	5
6.5 Dummy TF/TG	5
6.6 Stacking	5
7.0 MOVEMENT	5
7.1 Naval Units	6
7.2 Ice Fields	6
7.3 Coastal Hexes	6
7.4 Map Edge	6
7.5 Movement Restrictions	6
7.6 Movement Limitations	6
7.7 Reaction Movement	7
7.8 Damaged Naval Unit Movement	7
7.9 Fuel Consumption	7
8.0 AIR UNITS	7
8.1 Allied Carrier-Based Air Units	7
8.2 Combat Air Patrol (CAP)	8
8.3 Aircraft Carrier Destruction	8
8.4 German Land-Based Air Units	8
8.5 German Air Unit Range	8
8.6 German Air Bases	8
9.0 CONVOY PQ-17	8
9.1 Convoy Assignment	8
9.2 Convoy Movement	8
9.3 Convoy PQ-17 Display	8
9.4 Convoy Scatters	8
10.0 DETECTION	9
10.1 Surface Search	9
10.2 Air Search	9
11.0 COMBAT	9
11.1 Air to Surface Combat	9
11.2 Air Attacks Against Convoy PQ-17	10
11.3 Air-To-Air Combat	10
11.4 Surface Combat	11
12.0 NAVAL UNIT DAMAGE	12
12.1 Aircraft Carrier Damage	13
12.2 Critical Hits	13
13.0 SUBMARINES	13
13.1 Setup	13
13.2 Dummy Submarines	13
13.3 Submarine Movement	13
13.4 Submarine Movement Restrictions	13
13.5 Submarine Contact	13
13.6 Shadowing	13
13.7 Submarine Combat	13
13.8 Submarine Attack Limits	13
13.9 Anti-Submarine Combat	13
13.10 Convoy PQ-17 Escort Submarines	14
14.0 THE BATTLESHIP TIRPITZ	14
Variant Rule 14.1	14
15.0 VICTORY CONDITIONS	14
15.1 German VP Awards	14
15.2 Allied VP Awards	14
15.3 Levels of Victory	14
16.0 SCENARIOS	15
16.1 Historical Scenario	15
16.1.2 Allied Forces Set Up	15
16.2 Armageddon in the Barents Scenario	15
17.0 CREDITS	15
18.0 ADDENDA	16
18.1 Counter Addenda	16
18.2 Map Addenda	16
19.0 INDEX	16