Molfpack

THE NORTH ATLANTIC CONVOY STRUGGLES
OCTOBER 1941-MARCH 1943



Lorient, France 18.October 1941

Kapitänleutnant,

The Battle of the Atlantic has been raging for two years. Millions of tons of Allied shipping have already been sunk, and many thousands have died on both sides. The fate of Britain and the Allied war effort hang in the balance. Churchill knows that losing the Atlantic means losing the war. From his headquarters in occupied Lorient, the head of U-boat command Admiral Dönitz gathers intelligence to coordinate U-boat attacks. German naval intelligence, B-dienst, has broken the British merchant codes. We know the details of convoy sailings and their routes across the Atlantic. Our long range Fw 200 Condor reconnaissance planes shadow enemy convoys to report their size and heading. With encrypted radio signals, Dönitz vectors U-boats toward enemy convoys to form the wolfpacks. Against these coordinated assaults, enemy merchant shipping is being sunk at an alarming rate. But the battle is not over yet.

This war at sea is a war of numbers. Winning means sinking enemy merchant ships faster than they can build them, and faster than they can sink our U-boats. At first, our enemies were consistently on the wrong side of this ledger. Though they grouped their ships in convoys for safety, there were never enough convoy escorts to go around. And those escorts were often outdated, WWI-era warships. ASDIC and radar technologies are so new that training and tactics couldn't keep up. For a time, British escort doctrine kept escorts close to their convoys, offering passive protection that did little to thwart those early U-boat attacks.

That was the First Happy Time, and it came to an end earlier this year. Now we face new challenges, because our enemy has learned some hard lessons. Convoys have started rerouting around our wolfpacks, as though they know where we wait for them. Every convoy is now escorted, some heavily. And during a recent wolfpack attack, our crews were surprised by the aggression and daring of their escorts. They hounded us like mad dogs the moment one of our boats was spotted, even daring to leave the convoy in pursuit. More and more, our U-boats are spotted on the surface by Allied planes. Their Very Long Range bombers reach deep into the Atlantic, ready to call escort hunting groups down on spotted U-boats or even drop their own depth charges.

But we have our own tricks. The Kriegsmarine has recently upgraded its Enigma code machine, which should make it harder for our enemies to snoop on the Admiral's orders. New U-boats are being built every week and we can now operate from captured French ports, closer to our hunting grounds and far from British patrols. America's entry into the war gives our U-boats new targets to hunt. And the Allied air patrols cannot cover the entire Atlantic. There is a gap in the middle of the ocean that planes can't reach — the dreaded "Black Pit" — where their convoys are most vulnerable. This is where we will strike them next.

Welcome to the start of the Second Happy Time. Report to your boat and prepare to depart. And good hunting.

How to Play Wolfpack

Wolfpack is played in a series of patrols. Each patrol consists of one to four U-boats intercepting and attacking a single enemy convoy. There is a Training Scenario with simplified rules for learning the game. In addition, there are four regular scenarios available: The Patrol Mission, Single War Period, Early Campaign, and Full campaign. To set up a game of **Wolfpack**, select a scenario and locate its matching Scenario Setup player aid card. The setup card will give you details on that specific scenario.

- The Training Scenario is a modified scenario designed to help you learn to play Wolfpack. It uses the core set of Wolfpack rules but omits all Anti-Submarine Warfare (ASW) operations. It allows you to focus on maneuvering your U-boat, lining up your shots, firing torpedoes, and with any luck sinking some merchant ships. See the setup instructions below for full details and the TS Training Scenario setup card for a list of the rules used in this scenario, a modified Sequence of Play, and victory conditions.
- The Patrol Mission covers a single patrol, in any chosen war period. See the PM – Patrol Mission setup card for full instructions and victory conditions.
- The Single War Period covers just one war period of three patrols, in any chosen war period. See the SWP – Single War Period setup card for full instructions and victory conditions.
- The Early Campaign covers three war periods from October 1941 through June 1942. Each war period consists of three months, with one patrol per month. You will manage five flotillas of U-boats and track crew experience for each. See the EC Early Campaign setup card for full instructions and victory conditions.
- The Full Campaign covers up to six war periods, from October, 1941 through March, 1943. There is a chance that this campaign could end early in an auto-win or auto-loss for the players. Like the Early Campaign, each war period consists of three months, with one patrol per month. You will manage five flotillas of U-boats and track crew experience for each. See the FC Full Campaign setup card for full instructions and victory conditions.

26 August, 1940 (the First Happy Time)

Congratulations, Kapitänleutnant. You have reached the final step of your training and preparation, a shakedown cruise to test the readiness of you, your boat, and your crew to bring the war to the enemy. You will depart German waters for the North Sea and engage an Allied convoy that has been detected by our long-range reconnaissance aircraft.

This is your lucky day: our Condors report that this convoy is not escorted by Allied warships. Your orders are to intercept this convoy and sink as many ships as you can before returning to base.

Training Scenario

TRAINING SCENARIO SETUP

Start by setting up the board. It has two sides: one side is used when attacking a large convoy, the other side is used when attacking a small convoy. For the Training Scenario, set up the map showing the small convoy side. Look for nine columns and five rows of convoy placement spaces. (The large side shows nine columns and seven rows.)



Set up the information markers which are placed on the map: the Turn marker, the VP marker, the Fast/Slow convoy speed marker, the Good/Bad weather marker, and the Day/Night time of day marker.











- Place the Turn marker on the Turn/Info Track in the 7 box.
- Place the convoy speed marker on its Slow side in the convoy speed box.
- Place the weather marker on its Good side in the Weather hox
- Place the time of day marker on its Night side in the Time of day box.
- Place the VP marker near the Turn/Info Track (you will move it onto the track once you damage or sink an enemy convoy ship to earn victory points).

Locate the U-boat W Depth Marker. This marks the depth of the U-boat: on the surface, at periscope depth, or submerged. When submerged, the U-boat's depth is tracked in 15 meter increments. This marker has two sides — use the surfaced side when on the surface, flip it to its submerged side when at periscope depth or deeper. Place it on its surfaced side on the U-boat Depth and Detection track, in the U-boat W column.



Note: Although there is no reason to submerge during the Training Scenario, you are encouraged to practice diving and surfacing to get a feel for your boat.

Locate the hexagonal U-boat marker for U-boat W. Note there are two separate markers for each U-boat: one for the Type VII C U-boat and one for the Type IX B. In the Training Scenario, you are in charge of a Type VII C U-boat. Next, place this marker on the map.



The board is divided into the Approach Map and the Attack Map (see page 6 in the rules, notes A and D). Place your boat on the Approach Map, in a U-boat Movement box (page 6, note B). Place the hexagonal U-boat W marker on the Approach Map, in the center-right location, in the upper U-boat Movement box, on its Surfaced side.



Locate the convoy ship tiles. There are four sets of tiles, organized by Convoy Ring number (the number in the bottom-right corner on the hidden side of each Convoy tile). For the Training Scenario, locate all the ship tiles labeled with a 1, 2, and 3. Sort these tiles by ring number, then shuffle and stack each set into separate piles. Set these near the map. (Set aside the convoy markers labeled 4, these are only used when attacking a large convoy).







Locate the four Spot Range markers. These optional markers may be used during the Observation Phase to mark the spotting range from your U-boat when on the Attack Map. Set them next to the map for now.









Gather several Sunk and Damaged markers and place them near the map. These will be used to mark spaces on the Attack Map where convoy ships have been sunk or damaged. Note that each marker has two sides. The front side is used when the convoy ship is sunk or damaged. This marker is then flipped during the Convoy Movement phase to mark a space that once held a convoy ship — essentially marking a "hole" within the convoy. This is a reminder not to place another convoy ship tile there in any future U-boat Observation phase.





Lastly, gather a pile of General Information markers and place them near the map.



Note: There are a number of additional markers that are not used with this Training Scenario. You may set aside the Escorts, Escort Captains, Escort Assigned markers, Alarm markers, Escort Request markers, and Lost Contact markers.

Set up the U-boat board. There are four U-boat boards, one for each U-boat — W, X, Y, and Z. Each board has two sides, one side for the Type VII C U-boat and one side for the Type IX B U-boat. Find the board labeled W and place it so its Type VII C side is showing. See pages 8 and 9 in the rules for more details about U-boat boards.



(U-boat board faded so you can see the markers.)

Place torpedo T1 in tube 1, T2 in tube 2, and T5 in tube 5, each with their A side showing.

Place torpedo T3 in tube 3 and T4 in tube 4, each with their E side showing.



Locate the target markers for tubes 1 through 5. Like the torpedoes, these are labeled W for U-boat W and T1 through T5, one for each torpedo tube. Set these next to the U-boat board. These will be used to mark targeted convoy ships during the TDC Calculation phase. (As with the T6 torpedo, set aside the T6 target marker as well.)











Locate the U-boat W Attack! marker. This will be used during the Torpedo Movement and Detonation Phase when resolving a torpedo attack to mark the specific convoy ship being attacked at that moment. Place beside the U-boat board.



Locate the Torpedo Reload markers. These mark the number of additional torpedoes carried by your U-boat. There are separate markers for G7a steam reloads and G7e electric reloads. Rotate each marker to note the total number of torpedo reloads, of each type of torpedo reload (if any), available for either bow (tubes 1-4) or stern (tube 5) reloads.







Place one G7a steam reload marker in the upper bow reload box, with the 3 turned upright. Place one G7e electric reload marker in the lower bow reload box, with the 3 turned upright. Place one G7a steam reload marker in the stern reload box, with the 1 turned upright. This gives your U-boat a full load of 12 torpedoes — loaded into tubes and available for reload — for the Type VII C U-boat.

Locate the Torpedo Loading markers. These are marked Loading 1 on one side and Loading 2 on the flip side. These markers are used to track torpedo reload progress. Gather several and place these next to the U-boat board.





Locate the TDC Modifier markers. These will be used during the TDC Calculation Phase to record the current TDC modifier for each tube that has a bearing on a target. Gather a selection of each type and place these near the U-boat board.









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Lastly, mark your U-boat's starting tactical points. You start the Training Scenario with 2 Tactical Points. Place a General Information marker in the Tactical Points box, with the 2 turned upright.



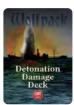
Note: There are a number of additional markers for the U-boat board that are not used with this Training Scenario that can be set aside: Damage and Crew Wound markers; Flooding, Fire, and Gas; the Operational Running/Silent Running marker; Emergency Blow; and Observation Periscope.

Finally, prepare the card decks. For the Training Scenario, you will need these four decks:

- Combat Deck
- Battle Deck
- Angle DRM Deck
- Detonation Damage Deck

Shuffle each deck and place it near the map. Set aside the Patrol Deck and the ASW Attack Deck, they are not used in the





Training Scenario.

You're all setup and ready to play. See page 2 in the rules for the specific list of rules used in this Training Scenario and the **TS** — **Training Scenario** player aid card for the specific rules used in this scenario, a modified Sequence of Play, and scenario victory conditions.

Good luck, Kapitänleutnant. If your attack is a success, we see a promising career ahead of you. If you fail, however, you just might find yourself reassigned to… well… a less prestigious posting.

Torpedo Movement/Detonation Phase example

Torpedo Movement [25]

Players rotate General Info markers, reducing the number by 1; remove if rotating from 1 to 0.



Torpedo Hit Check [25]

For each torpedo with no General Info marker remaining on a merchant ship, resolve in the following order:

- a. Pull a Combat card, position vertically. This will provide the number needed to achieve a hit. To Hit #
- b. Pull an Angle DRM card, rotate it upside down and place it over the first card. This will provide a Size To-Hit modifier (left side of card).
- **c.** Pull another **Angle DRM** card (do <u>not</u> rotate this one) and place it on top of the second card. This will provide the *Angle To-Hit modifier* (right side). Place a TDC modifier marker from the firing torpedo tube above the Ship Size Modifier column. Place the torpedo marker on the card at the angle the torpedo is striking the ship.
- d. Pull a d10 ♠. An unmodified "10" is always a hit. Otherwise, apply all *To-Hit* modifiers. If modified d10 result ≥ *To-Hit* number, torpedo hits; otherwise, it misses. If a HIT is achieved, check for *Detonation or Dud*. If it's a MISS, check *Missed Torpedo Attack*.

2



Detonation or Dud [26]

For each torpedo hit, pull a **Detonation Damage** card and check the **Torpedo Detonation** section for the correct details: Early/Late War and G7a/G7e torpedo type.

In our example, it is **Early War** (May 1942) and the torpedo is a **G7a**. The result is a green check mark ✓ = detonation. Now check for ship damage.







Place the cards in an open area on or near the map.

- a. To-Hit#, slow convoy, good weather: 6
- **b.** Size modifier for medium ship: 0
- c. Torpedo angle To-Hit modifier: +1
- d. TDC calculation modifier: +1
- e. Pull a Battle card and check the die roll: 10

In this example, we have a medium convoy ship in a slow convoy with good weather. We need a 6 or better to hit and have DRMs of **0** for the medium size, **+1** for TDC calculations, and **+1** for angle of attack. We pull a **10** which not only meets the needed To-Hit criteria but is also an Auto-hit.

Ship Damage Resolution [26]

Pull a **Detonation Damage** card and check for ship damage by the size of the ship.

In our example, the ship size is **Medium**, so we see the result is **D** (damaged).

Place a ship damaged marker on the ship. A second damaged result will sink the ship.

- = no damage
- **D** = damaged

S = sunk



Pull Battle Card

Missed Torpedo Attack [27]

If there is a convoy ship in the adjacent space along the torpedo's movement path (orthagonally or diagonally), pull a d10 . On an unmodified 10 (only), the result is a Hit. Check **Detonation or Dud**.



U-boat Movement Phase example



(Turns 8-10) Pull a d10 . If the result is within the range of the current turn, move the U-boat to the Attack map.

It is Turn 8 and U-boat X is on the surface. It needs to pull a 9-10 to enter the Attack portion of the map.



Check Heavy Damage & Flooding [28]

If the **Dive Planes** have Heavy Damage or are Destroyed *and* the **Flooding** damage marker (on either side) is to the right of the "D" space, the U-boat must descend 30 m.







In this example, we have a U-boat at 120 m with Flooding within the Crush Depth range. Its depth is marked in yellow on the ASW Attack card. Looking at the Crush Test box, we see it is also in yellow. As this is a match, the U-boat implodes and sinks.

Implosion Check [28]

If flooding damage is in Crush Deptinage and the U-boat is at 90 m or deeper, draw one **ASW Attack** card (no re-pull) and check the Crush Test box, looking to match the U-boat's depth. If matched, U-boat implodes and sinks.

Change Operational Status [29]

Choose either **Operational** or **Silent Running**.

If Silent Running, U-boat must be at 30 m or deeper, may not move, change depth, reload torpedoes, or perform damage control.

Advantage versus Escort's contact attempts while Silent Running.

Use marker to indicate chosen operational status on U-boat mat.



Surface

30 m

60 m

90 m

120 m

150 m 180 m LT

MED

MED

N/A

LT

HVY

N/A

HVY

MED

U-boat Movement Phase example continued

Adjust Depth [30]

A U-boat may not dive on the Approach map until it is under Escort Contact.

Type VII: Can dive or rise 30 m max. If changing 15 m, may move forward.

Type IX: Can dive 30 m, but only rise 15m max. If changing 15 m, may move forward.

Gas

When surfacing, reduce Gas level to 0 (remove the Gas marker).

Emergency Blow [35]

Decrease depth by 45 m. Must continue each turn until surfaced. May **Scuttle [29]** once surfaced.

May not Emergency Blow if **Rudder/Planes** have Heavy Damage or are Destroyed and **Flooding** damage marker is at or right of the "I" space.



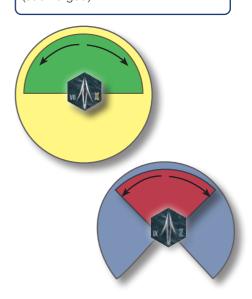


Free Turn Attack [33]



Type VII: Max 180° (surfaced); 90° (submerged)

Type IX: Max 135° (surfaced); 45° (submerged)



Forward Movement [Approach: 32,

Attack: 34]

If movement is allowed, the U-boat may move per the table to the right or Disengage.

Disengage [36]

Place the U-boat on the current turn of the Turn/Info Track

A U-boat may not disengage if:

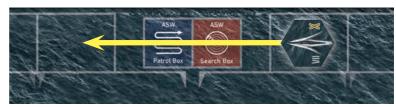
- it is on the Approach map under any level of Contact.
- it is on the Attack map within the Search range of an Escort.
- it is on the Attack map in a quadrant with an Escort in the Intercept box.
- it is on the Attack map under any level of Escort contact.

Approach Movement

Slow Convoy

Fast Convoy

Surfaced	1 box per move	1 box every even turn			
Submerged	1 box every even turn	no movement			



Attack Movement

Surfaced	1 free turn; then 2 spaces forward OR 1 space and a turn
Submerged	1 free turn; then 1 space forward



In this example, U-boat X begins by taking its <u>free</u> 45° turn [1], then moves forward one space [2], finishing with another 45° turn [3].

U-boat Observation Phase example

U-boat Observation [Attack map: 37]

1

For each empty boxed space within each U-boat's **spotting range**, place a random convoy ship counter face-up from the top of the pile that matches the Ring number of that boxed space.

Then flip over any convoy ship counters within each U-boat's **ID range** to reveal that ship's information. Any convoy ship counters that are blank on the back are left in place on the map.

Spot Range

	Goo Weatl		Bad Weather			
Dov	Spot:	12	Spot:	8		
Day	l ID:	8	ID:	6		
Nicelat	Spot:	6	Spot:	4		
Night	ID:	4	ID:	2		



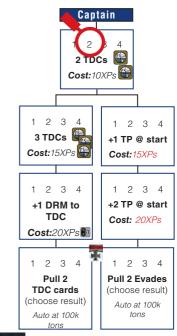
(purple) and the ID range is 4 (blue).

TDC Calculation Phase example

TDC Calculation [Attack map: 38]

Each U-boat may make 1 TDC calculation (*possibly modified by Crew Enhancements).

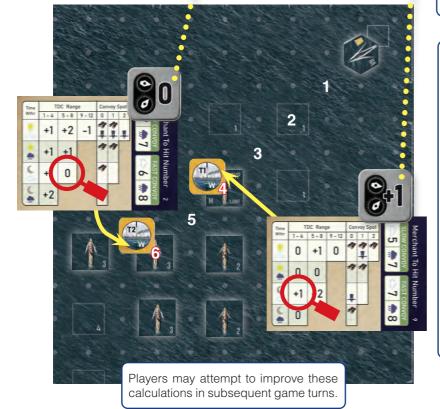
- 1. Choose a target ship (can be one previously targeted).
- 2. Determine To-Hit TDC modifier:
 - <u>First time targeting</u>: Pull a **Combat** card and cross-reference the range columns with the time of day/weather rows. This will produce a To-Hit modifier which will be applied when calculating if a torpedo hits its target (*with possible modification).
 - Subsequent targeting: Pull a Combat card (as above). If the new modifier is ≤ the current
 modifier, there is no change. If the new modifier is > than the current modifier, update
 the tube(s) with a marker reflecting the new modifier.
- **3. Apply the To-Hit TDC modifier** to one or more torpedo tubes on the U-boat. Place TDC marker on the assigned tube(s).
- **4. Place a TDC Target ID marker** matching the assigned torpedo tube(s) on the target ship.
 - * Possible Crew Enhancements include: Captain enhancement 2, or 3 TDCs, or +1 DRM.



Important! Each target ship may be targeted only once per turn per U-boat. If you can make multiple TDC calculations, they must be made for separate target ships.



Tubes 3 and 4 are empty and may not be assigned a calculation.



In this example, the player is able to make two TDC Calculations because the Captain has the first enhancement of **2 TDCs**.

The first calculation will be made against the convoy ship 4 spaces away. The second will be made against the convoy ship 6 spaces away. Two Combat cards are pulled, one for each convoy ship.

We see the ship at 4 spaces away at night in good weather yields a +1 calculation and we assign it to Tube 1

The ship 6 spaces away at night and in good weather yields a 0 calculation results and assigns it to Tube 2.

Place TDC Calculation markers adjacent to Tubes 1 and 2. Legal placement of TDC markers is on tubes that are loaded or in the loading process. They may *not* be assigned to empty tubes.

ASW Phase example

Escort Movement [39]

Reduce the number on the General Info markers.

Escorts on APPROACH: -1 to Gen Info on Depth & Detection Track for each Escort. If reduced to 0, place Escort+Captain on the targeted U-boat.

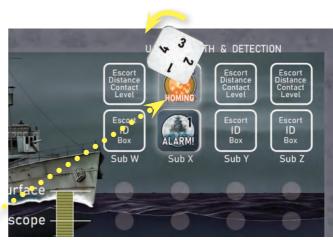
Escorts on ATTACK: Adjust all Gen Info markers for each Escort Assigned marker (standard or targeted) on the Attack map, reducing the count by 1. If reduced to 0, replace the Assigned marker with Escort+Captain counters.

Escorts Holding Track Clean-Up [52]

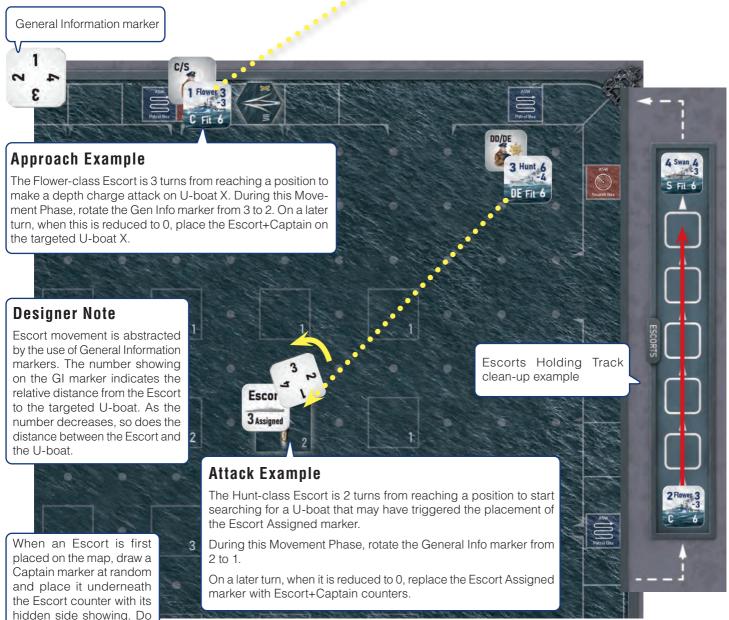
not look at the reverse side

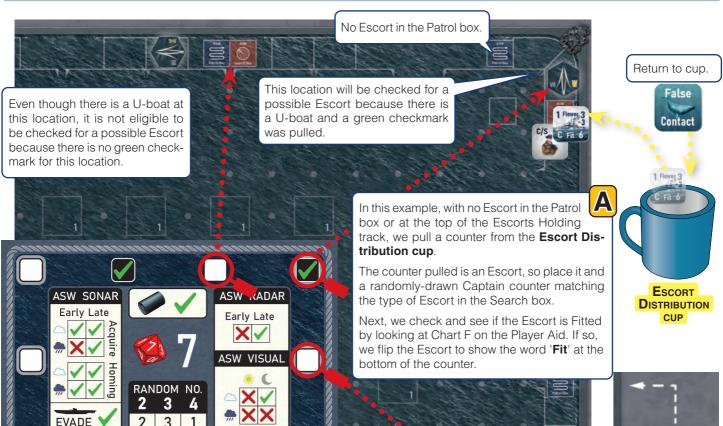
of the counter.

Then on the Escorts Holding track, starting with the topmost Escort counter that has one more empty spaces above it, move each Escort counter up in order to fill the empty spaces.



11





Escort Location Check [Approach: 40]

Pull 1 Battle Card and use it to check all Approach map ASW seach boxes.

For Approach location with no ✓: No check at this location.

If an Escort is in the Patrol box at that location, move it to the bottom space on the Escorts Holding track, pushing any other Escort(s) up on the track.

The first time you place an

Escort on either map, check

if Fitted. (See the Fitted chart

on the player aid.)

For Approach location with a U-boat and √:

- If there is an Escort in the Patrol box, move the Escort to the Search box at that location.
- If there is no Escort in the Patrol box, move the Escort from the top box of the Escorts Holding track to the Search box at that location. Adjust the Escorts Holding track.
 - If False Contact, return the marker to the cup.
 - If there are no Escorts on the Escorts Holding track, draw a Captain marker at random and place it underneath the Escort counter with its hidden side showing. Check if the Escort is Fitted by checking the Fit table and adjust the Escort counter to the appropriate side.

Here we have no U-boat in this location but there is an Escort.

Because there is no green checkmark and there is an Escort in the Patrol box without a U-boat, the Escort is removed and placed at the bottom of the Escorts Holding track, moving the Swan up one box to make room.



ESCORTS HOLDING TRACK

Escort Location Check [Attack: 43]

If one or more Escort Request markers (standard or targeted) are on the Attack map, pull one **Battle** card. Only check quadrants with

For quadrant with no ✓: Reduce General Information markers on any Escort Request markers in this quadrant by 1.

For quadrant with ✓:

Escort Request markers.

- If there is an Escort on the Escorts Holding track, move the Escort from the top box to the Intercept box for the quadrant.
- If there is no Escort on the Escorts Holding track, pull a counter at random from the Escort Distribution cup.
 - If False Contact, return the marker to the cup.
 - If Escort, draw a Captain marker at random and place it underneath the Escort counter with its hidden side showing; place both counters in the Intercept box for the quadrant. Check if the Escort is Fitted. Determine distance to the Escort Assigned marker by pulling a R#2 and place the General Info marker as well.
- Replace the Escort Request marker with the Escort Assigned marker matching the newly-placed Escort's ID.



Quadrant #1

Quadrant #3

Any placement of a Request marker (either type) on the red line immediately moves to either of the adjacent quadrants (right or left).

Any Request marker (either type) placed or moved onto the yellow dotted line belongs to the quadrant above.

In this example, we are checking to see if an Escort is responding to any of the Escort Request markers.

We pull a **Battle** card and check each quadrant with an Escort Request marker. Here, we have one in Quadrant 1 and we see a green checkmark in the top-left corner of the **Battle** card.

This means we must check the top of the Escorts Holding track to see if there is an Escort in the top box. In this instance, there is not.

So we will pull a counter at random from the Escort Distribution cup. If a False Contact is pulled, return it to the cup and proceed to check the next quadrant.

We pull a Hunt class DE from the cup so we have an Escort moving toward the Escort Request marker. We place the DE in the Interception box along with a random Captain counter, and check if it is Fitted.

We pull another **Battle** card to check its distance and use the R#2, which results in a **2**. It will take two turns for the Escort to reach its search location. We place a General Info marker with the Escort with the **2** side at the top.

Finally, we replace the Escort Request marker with an Escort Assigned marker matching the ID number of the Escort. All U-boats on the Attack map may Crash Dive at this time.

Crash Dive [42]

A Crash Dive may be made by a surfaced U-boat when an Escort is placed in a Search box on the Approach Map or in the Intercept box on the Attack Map.

Escort U-boat Search [Approach: 41]

Escorts attempt to gain or maintain Contact with eligible U-boats.













For successful Radar/Visual or Sonar Search: Remove the Lost Contact (Sonar) marker, if present, when maintaining contact. Then place an Alarm ID# marker matching the Escort's ID in the Escort ID box on the U-boat's column of the Depth & Detection Track if not already present. If the contact was made by Sonar, also place a Homing marker on the D&D Track for that U-boat and proceed to the Determine Distance step (R#3, no re-pull).

Maintaining Contact: Once an Escort makes contact by Radar/Visual, it will maintain contact; no further check is necessary until the U-boat submerges. For a submerged U-boat, contact *must* be maintained each turn.

On the initial search attempt and no contact is made: Move the Escort to the ASW Patrol box in the same location.

When Homing (maintaining contact): If at Lost Contact 2, remove the Homing and Escort Alarm ID# markers from the D&D Track and move the Escort to the ASW Patrol box in the same location. Otherwise, increase the Lost Contact level by 1.

In this example, the Flower class Escort 1 is about to search for U-boat X. The conditions are Early War, Good Weather, and the U-boat is at the surface. The Escort is Fitted, so it will be using its radar. (It would use the ASW Visual table on the Battle card if not Fitted.)

We pull a **Battle** card and check the Early War column on the **ASW Radar** table. Here we see a green checkmark showing contact has been made. (If it had a red X, no contact would be made and we would move the Escort and its Captain to the Patrol box.)

Since the Escort made contact, we now have to determine the distance between the Escort and the U-boat. Pull a second **Battle** card and check the **Random Number** table for R#3; we see this is a **2** result.

Place a **General Info** marker on the U-boat Depth & Detection Track on its **2** side. Also place an **Escort Alarm ID#** marker in the Escort box to show that Escort 1 is searching for U-boat X.

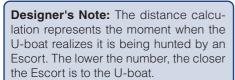


The first Battle card is pulled for the Radar Search. A ✓ means contact has been made.

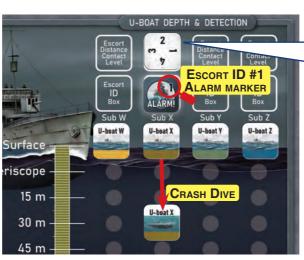




The second Battle card is pulled to determine distance. Checking the R#3, it shows 2. The Escort is 2 turns away from U-boat X.



At a distance of 1 or 2, the U-boat is in real danger. Remember, depth is a U-boat's friend and the earlier you can start the dive process (Crash Dive), the better.



Place a General Info marker on its 2 side in the Escort Distance/Contact Level box. Place the Alarm ID# marker in the Escort ID box. If Sonar search, you will also place a Homing marker.

Escort U-boat Search [Attack: 44]

For each Escort located on an Attack space, a check will be made within that Escort's search range to see if the Escort makes contact with a U-boat.

Range: An Escort's search range on the turn of its placement is 4 spaces extending from the Escort in all directions, forming a ring. This search range extends by one space each turn that the Escort continues its search.

Type of Search: For U-boats on the surface, an Escort will use Radar if they are Fitted, or Visual if not. For submerged U-boats, they use Sonar.

Radar and Visual searches on the Attack map use a different method than used on the Approach map. Consult the search chart for the type of search being made and pull a d10 of for a result.

Sonar searches on the Attack map use the procedure from the Approach map with a few changes: increased card pulls due to the extra noise from the convoy and the back of the Captain counter for Elite Sonar operator.



Visual Search

15

U-boat at	Surfa	ace	Periscope depth			
Day	Good	3+	Good	6+		
Day	Bad	5+	Bad	7+		
Nicelat	Good	5+	Good	8+		
Night	Bad	7+	Bad	10+		

Radar Search

	Surfa	ace	Periscope depth			
At any	Good	2+	Good	4+		
time	Bad	4+	Bad	6+		

Note: The convoy ships have been removed from the map in this example to keep the clutter down.

In this example, the Hunt class Escort 3 (Fitted) is about to perform its search. This is the second turn of searching and we see that the Escort's time on target (ToT) is 5 (how many turns this Escort will continue its search). After this search, there will be three more turns remaining to conduct the search.

The range for this search is five spaces away from the Escort. Conditions are Early War, night, and good weather.

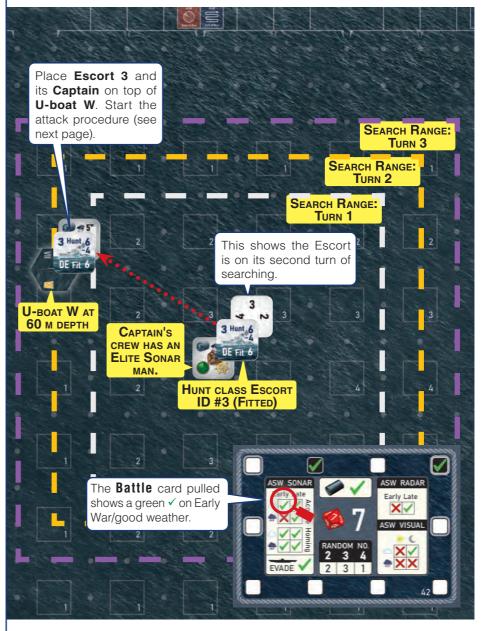
First we check to see if any U-boats are within search range on the surface or at periscope depth. If there are, we would use **Radar** if Fitted or **Visual** if not. In this case, there are no U-boats that meet this condition.

Next, we see that there is a U-boat submerged at 60 m and 5 spaces away from the Escort so we switch to **Sonar**. We pull a **Battle** card and check the Early War/good weather box and see that we have a green ✓ result, so the Escort makes contact with the U-boat.

As Sonar contact was made, the U-boat player has the option to attempt to **Evade** at the cost of 1 Tactical Point. This can only be done at 30 m or deeper. [42]

No Evasion is conducted in this example, so we move the Escort+Captain counters on top of the located U-boat.

Place a General Info marker on the U-boat Depth & Detection Track on its 2 side. Also place an Escort Alarm ID# marker in the Escort box to show that Escort 3 is searching for U-boat W. If Sonar search, you will also place a Homing marker.



Escort Surface Attack & Depth Charge [Approach: 49, Attack: 49]

Surface Attack: At a distance of 0 or 1 from a U-boat on the surface (on Approach) or up to six spaces (on Attack), pull ASW Attack cards equal to the Escort's Surface Attack value and apply the results.

Depth Charge Attack: First check if the Escort will attack. If standard Helmsman, pull 1 ASW Attack card. If Elite Helmsman, pull 2 instead. Any ✓ pulled means an attack is performed. (See A below.)

In this example, U-boat W is on the Approach map at a depth of 60 m and the Hunt class Escort is in an attack position for depth charges.

First check if the Escort will attack. The Captain has a standard helmsman. Pulling a **Battle** card and checking the ASW Attack results, we see the ✓ indicates the Escort will attack.

We will pull six ASW Attack cards and apply the results. On each pulled card, check the Contact column and the **U-boat's depth** (60 m in this case) for the results. For each result, pull a Detonation Damage card and apply damage markers to the U-boat board as indicated.

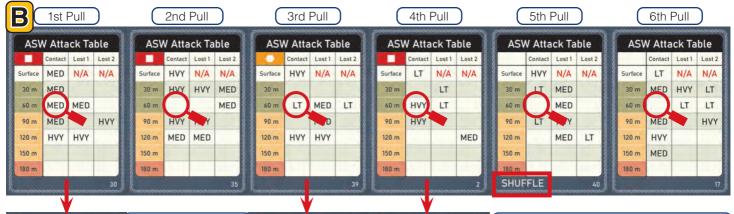


3 Hun 6

DE Fil 6

SURFACE ATTACK VALUE

SUBMERGED ATTACK VALUE





1st Pull: Flood √2 means place the Flood marker on its track and move it 2

Fire √1 means place the Fire marker in the level 1 box.

2nd Pull: No result.



3rd Pull: Light damage with Flood √1, light damage to Diesel Engines and Torpedo Tube #4, Light Wound to Crew (d10 🥮 = 7. for Mid Crew).

4th Pull: Heavy damage with Flood √3, Heavy Wounds (d10 9 = 1 for 1st W/O).

5th Pull: No result but shuffle the deck at the end of the action.

6th Pull: No result.

U-boat vs Escort Combat [Approach: 53]

This procedure is slightly different than an attack against an Escort on the Attack map. [60]

This attack happens at the end of the ASW (Search, Move, and Attack) Phase after all ASW attacks have been resolved. A U-boat may fire loaded torpedoes to attack an Escort which is targeting it at a range of 1 or 0. There are no TDC calculations, firing angle, or size modifiers used in this attack.

Pull a Combat card and turn it vertically. Find the To-Hit number (check weather under convoy speed for To-Hit #). Pull a Battle card for the die roll . Subtract the Escort's defensive DRM from the die result. The Escort is hit on an unmodified roll of 10 or if the result is ≥ To-Hit.

Detonation: For each hit, pull a Detonation/Damage card and check the Torpedo Detonation section for the appropriate type of torpedo. If the card has a green \checkmark , the torpedo will detonate; proceed to Ship Damage. If it has a red \checkmark , it is a dud; no effect.

Ship Damage: Pull another Detonation/Damage card and check for Ship Damage. All Escorts are medium in size. Apply the following results:

X = Superficial damage; no effect

D/S = Damaged or Sunk; remove the Escort counter and place it on the player's U-boat board. There are no victory points for sinking Escorts, but if the U-boat survives the Patrol, it will receive 20XPs.



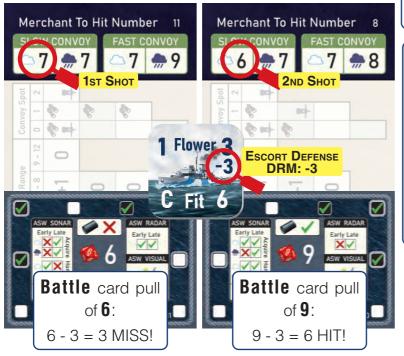
In this example, U-boat W will attack a Flower class Corvette Escort on the Approach map using torpedo tubes 3 and 4.

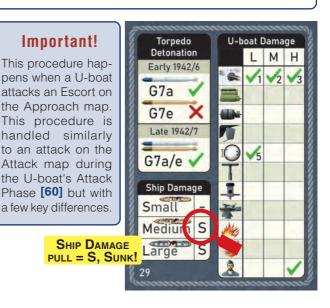
Remove both torpedo markers from their tubes and calculate the results for each torpedo individually. The conditions are Slow Convoy and Good Weather.

For the first shot, looking under Slow Convoy and Good Weather, we see we need a 7 to hit. We pull a Battle card for a d10 proll of 6. Subtract the Escort's Defense DRM of -3 from the roll. 6 - 3 = 3, which is lower than the needed number of 7. The first shot is a Miss. (If we had pulled a 10, it would be an auto hit.)

The second shot calculations: we have a To-Hit number of 6. We pull a 9, 9 - 3 = 6 which is a equal to the number needed for a Hit! Then we determine the result of the torpedo that hit. Pull the first Detonation/Damage card to determine if the torpedo detonates. If successful, pull a second Detonation/ Damage card for Ship Damage. (Reminder: All Escorts are medium-sized ships.) Apply the damage results.

Important!





Convoy Movement Phase example

Convoy Movement Phase [55]

Every turn, as the convoy continues steaming toward safe harbor, the other ships are adjusted to reflect the change in their relative locations. The convoy is "moving" toward the top of the map but the ship counters are *not* physically moved.

Conduct the following sequence:

Damaged Ships: Move all damaged Convoy Ships to the Turn Track, in the space for the current turn.

Ship Damaged markers: Flip to open (ocean) side; leave in place.

Sunk markers: Flip to the back (rowboat) side; leave in place.

Escort & Escort Request markers / U-boat counters: Move the following markers and counters DOWN 1 or 2 spaces, depending on the convoy's speed:

- U-boat (maintain facing)
- Escort+Captain (stacked with U-boat in Approach or in Attack Map space)
- Escort Request
- Escort Assigned marker
- General Information markers
 - If U-boat without Escort contact moves off bottom of map: Place on current turn on turn track.
 - If U-boat with Escort contact moves off bottom of map: Check for survival.
 - If Escort without contact moves off bottom of map: Place on bottom space of Escort Holding track.

If an Escort Request marker drifts into a quadrant already containing an Escort Request marker, remove the marker with the lower Gen. Inf. (least time remaining). If tied, use R#.

If a Targeted Escort Request marker drifts into a quadrant containing an Escort Request marker, remove the Escort Request marker. If it drifts into a quadrant already containing a Targeted Escort Request marker, remove the marker with the lower Gen. Inf. marker number (least time remaining).

Check for Collisions: For each U-boat at surface/periscope depth which ends in the same space with a convoy ship, pull a d10 № (no re-pull). If the result is a **1**, a collision occurs.

Collision Damage: Pull 9 **ASW Attack** cards, checking the Surface row and Contact column and apply the results.

In this example, the convoy is Fast and it is a even turn, so all movement will be 2 spaces.

U-boat Z on Approach must first move 1 space to the left which puts it in a corner space. Then move the U-boat around the corner, headed towards the bottom of the map, for its second move

U-boat X on Approach moves 2 spaces down.

U-boat W first moves 2 spaces down, then it must check for a Collision. We pull a d10 and the result is a **2**, *almost* a Collision but it is a MISS.

Designer's Note: To simulate the convoy's movement towards the top of the map, you move all pieces other than convoy ships on the board towards the bottom of the map.

Slow Convoy: Move 1 space on odd-numbered turns; move 1 space on even-numbered turns.

Fast Convoy: Move 1 space on odd-numbered turns; move 2 spaces on even-numbered turns.

Convoy Search[Attack: 57]

U-boats at surface/periscope depth may be spotted by convoy ships.

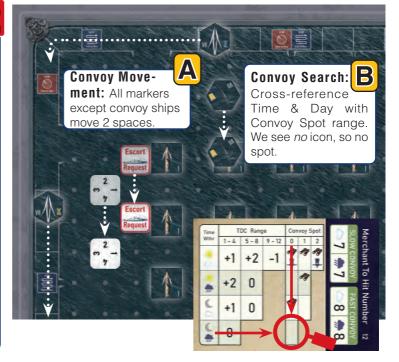
For each U-boat within search range of one or more convoy ships: Pull a Combat card and identify the Time and Weather to use. (Treat as Day/Good if within 2 spaces of an Escort Request/Targeted Escort Request marker at Night.)

Checking the Convoy Spot column for the current distance, contact is made:

- if there is a periscope icon and the U-boat is at periscope depth.
- if there is a binocular icon and the U-boat is on the surface.

If contact is made, place a Targeted Escort Request marker on the U-boat.

In this example, the conditions are Night and Bad Weather. The search range for each convoy ship is 0, so they may only search their own hexes. **U-boat W** is in a convoy ship's space, so the search will occur. We pull a **Combat** card and see *NO* contact is made. (The Night modifier does not apply because the Escort Request marker is 3 spaces away.)



Torpedo Reload Phase example

Reload Torpedo Phase [58]

Every U-boat conducts the following steps:

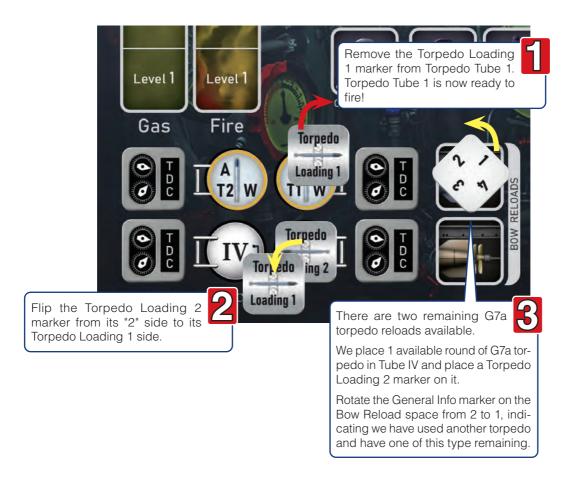
- 1. Remove each Torpedo Loading 1 marker.
- 2. Flip each Torpedo Loading 2 marker to its 1 side.
- **3.** If there is a torpedo available in the Reload box of the same section as an empty tube, place a Torpedo Loading 2 marker and reduce the Reload count of that type by 1. (1 torpedo tube max.)

In this example, we start by removing the Torpedo Loading 1 marker from Torpedo Tube 1. This exposes the torpedo beneath the marker and it is now ready to fire!

Next, we flip the Torpedo Loading 2 marker on Tube III over to its Torpedo Loading 1 side.

Finally, we see that there are two G7a torpedoes remaining in the Bow Reloads box. Locate the A-T4 marker and place it on Tube 4. Then place a Torpedo Loading 2 marker on top of it. Then rotate the General Info marker in the Bow Reload box down by one so the "1" is at the top.

It takes three turns to reload each Torpedo.



U-boat Attack Phase example

U-boat Attack Phase [59]

For each torpedo fired, take the torpedo marker from the U-boat board's torpedo tube and place it on top of its target, maintaining the proper firing angle from the U-boat. Then return the TDC Target ID marker from the target ship to the player's supply. Repeat this process for every torpedo being fired this turn.

Surfaced U-boat: May fire up to all torpedoes (bow and stern).

Submerged U-boat: May fire up to all from either bow or stern.

U-boat vs Convoy Ship procedure: Take the fired torpedo from its tube and place it on its target. Maintain the proper firing angle from the U-boat. Return the TDC Target ID marker from the target ship to the player' supply. Check the Torpedo Range & Speed chart. Place a General Info marker on top of the fired torpedo with its speed value at the top.

Unaimed Torpedo Attack: As above but with a -3 DRM marker added on top of the torpedo.

Firing G7a (steam) during Day: Immediately make an Escort Search using Day/Good or Day/Bad, as appropriate. If the result is binoculars, place a Targeted Escort Request marker and a General Info marker set to "4" on the firing U-boat.



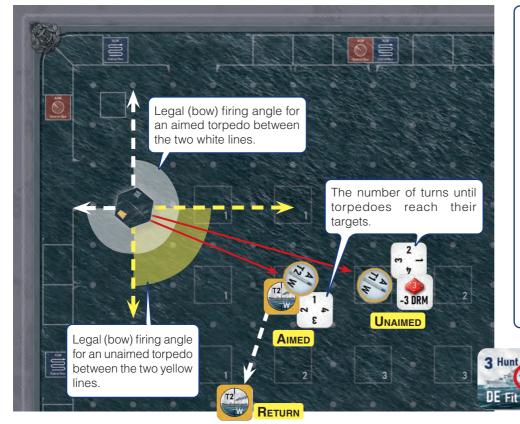












In this example, U-boat W is firing two torpedoes — one with TDC calculations and one without.

Torpedo Tube #2 fires with a TDC +1 marker at a convoy ship four spaces away. Place the torpedo from Tube 2 on its target with a General Info marker set to "1" as the distance is between 1-4 spaces away, four spaces in this case. Place the Target ID marker back in the player's supply. This torpedo will take one turn to reach its target.

Torpedo Tube #1 fires an unaimed torpedo at a convoy ship six spaces away. Place the torpedo from Tube 1 on its target along with a -3 DRM marker and a General Info marker set to "2" as the distance is between 5-8 spaces away. This torpedo will take two turns to reach its target.

U-boat vs Escort on Attack [60]

Max range: 6 (Day) / 4 (Night)

Determine the number of torpedoes to fire. Remove all fired torpedoes from the U-boat board.

For each fired torpedo, resolve immediately as follows:

Pull a Combat card, turn it vertically, and find the To-Hit number. (Check Weather under Convoy Speed fast for the To-Hit.). Subtract the Escort's defensive DRM. The Escort is hit on an unmodified result of "10" or if the result is \geq To-Hit.





Damage Control Phase example

Damage Control Phase [61]

During this phase, a Crew Section (and possibly the Chief Engineer) may attempt to repair damage to the U-boat, and the 2nd Watch Officer/Medic and Crew Section may attempt to heal wounds sustained by Officers and Crew Sections.

Unless 1TP is spent, no repairs may be attempted while Silent Running.

There are four damage/wounds levels for U-boat locations and crew (light, medium, heavy, and destroyed/KIA). Flooding, Fire, and Gas have sliding tracks for their damage.

Each Crew Section, along with the Chief Engineer, may attempt to repair one location per turn. The 2nd WO/Medic may attempt to heal one Officer or Crew Section per turn. In both cases, a result of 4+ on a d10 die pull is required for the attempt to be successful, modified by any wound levels sustained by the Crew Section or Officer attempting the repair/healing.

Crew Relocation [65]

Declare the Crew Section (bow, midship, or stern) whose wound level you want to reduce. Reduce that location's wound level by one or more and increase the wound level at another location by that same amount. You may do this to multiple locations and for any level of wounds.

Example: This is what the Crew Sections on the U-boat below will look like after Relocations are made. Stern section reduced by 1, Bow section increased 1.

In this example, U-boat W has been hit pretty hard, leaving some tough choices. All repair and heal attempts require a pull result of 4+ for success.

First, we try to heal a Crew Section before they attempt their damage repairs. Our 2nd WO/Medic will make the attempt for the Stern Crew Section. We pull a d10 with a result of 2 — Failure.

Any level of Fire is a number one priority for repairs. First the Bow Crew Section with the Chief Engineer will attempt this repair. The die pull is a 3 with a +1 DRM for the use of the Chief Engineer and Crew enhancements; 4 is our modified result equaling success! Flip the Fire marker to its Contained side.

Next, we will use the Mid Crew Section to repair our Flooding damage. A d10 pull of 6, -1 for Light Wounds, results in a 5 — another success. Flip the Flooding marker to its Contained side.

If we had not been successful, at the end of the phase the Flooding damage would have increased by one box. When Flooding or a Fire is contained, a further repair success will lessen the damage by one box.

Finally, the Stern Crew Section will attempt to repair the Electric Engines. This will be difficult due to the -3 DRM for their Medium Wounds. A d10 pull of 6 - 3 = 3, failure. We could re-pull this result by spending a TP if we have any remaining.



Designer's Notes

The concept behind **Wolfpack** is to create an immersive and strategic experience that allows players to take on the role of German U-boat commanders during World War II. The game aims to simulate the challenges and tactics involved in submarine warfare in the Battle of the North Atlantic. Many of the mechanics in the game were designed to give the player the feeling of being a U-boat captain during the conflict. When do you go from the Hunter to the Hunted?

The Battle of the North Atlantic was a prolonged military campaign during World War II that took place in the waters of the North Atlantic Ocean. It was fought primarily between the Allies, led by the United States and the United Kingdom, and the Axis powers led by Germany. In Wolfpack players will take command of the German U-boats in their fight against the Allied convoys and their Escorts. You will have to manage resources and crew training of multiple flotillas as you send your U-boats on patrol in the frigid waters to the Northwest. I chose to use partial numbers of U-boats from each of the game's participating flotillas, 1st flotilla Brest France, 2nd flotilla Lorient France, 3rd flotilla La Rochelle France, 6th & 7th flotilla St. Nazaire France. Scaling down the number of flotillas and their U-boats gives the game a more tactical feel, allowing players to focus on the management of these flotillas and each participating U-boat's crew. Wolfpack's game scale focuses on a small part of the battle of the North Atlantic, attacking a single convoy per month, while the German U-boat service conducts similar operations throughout the waters surrounding Europe and off the shores of the United States and Mediterranean. The game is intended to follow these brave seamen and their stories that the game will create.

The Battle of the North Atlantic was crucial for the survival of the Allied forces, as it involved the protection of vital convoys carrying troops, supplies, and equipment between North America and Europe. The German Navy, particularly its submarine force known as the U-boats, sought to disrupt these convoys and cut off the supply lines to the British Isles. The Allied forces are controlled by a unique Al system — as the convoy sails towards safe harbor, escorts will move, search, and attack the player's U-boats. Many of these mechanics are intended to give the player the feelings that the actual U-boat crews must have felt in their steel coffins. One such mechanic is the multiple card pulls when an escort attacks your U-boat, one depth charge after another exploding around your hull. As your U-boat takes more and more damage, will the next one be the last one?

There are many decisions that the players will be forced to make — do you follow German doctrine of firing "one Fish for one convoy ship" or fire multiple torpedoes to ensure the fate of your prey risking not having enough munitions to carry out your mission? When to crash dive, run silent, perform evasive maneuvers, and many more without bogging down the game. One of my main goals with this design was to make a game that feels tactical and accurate without a complex set of rules, because the most important question I ask myself during the design process is "Is it fun?" Games are supposed to be fun.

The battle began in September 1939 and lasted until the end of the war in 1945. The German U-boats initially had significant success, as the Allies were ill-prepared for the intensity and scale of the German's submarine warfare. The U-boats started operating in "wolfpacks," groups of U-boats in mid-to-late 1941. These wolfpacks would coordinate their attacks in an attempt to overwhelm the convoys, aiming to sink as many ships as possible.

The Battle of the North Atlantic saw the development and implementation of various tactics and technologies by both sides. The Allies employed convoy systems, where merchant ships traveled in groups with naval escorts for protection. They also used improved sonar technology to detect and destroy U-boats. The Germans, on the other hand, introduced more advanced U-boat models and wolfpack tactics, plus the tactic of "silent running" and evasive maneuvers to evade detection.

The conflict reached its climax between 1942 and 1943, known as the "Second Happy Time" for the U-boats. During this period, the Germans sank a significant number of Allied vessels, posing a severe threat to the convoys. However, the tide gradually turned in favor of the Allies as their anti-submarine warfare capabilities improved and they began to gain the upper hand. The breaking of the German Enigma code by British codebreakers at Bletchley Park also played a significant role, as it allowed the Allies to intercept and decipher German naval communications, gaining valuable intelligence. By mid-1943, the Allies had gained the upper hand in the Battle of the North Atlantic. This is the time period that the game of Wolfpack takes place, from October 1941 - March 1943. Players will manage their flotillas of U-boats as they raid Allied convoys. The first half of the game, the U-boats have the upper hand but in the middle of 1942 that will all change with major improvements in Allied defensive capabilities. Players will desperately try to survive the escorts' countermeasures as they try to hold on for a campaign victory!

The Battle of the North Atlantic continued until the end of World War II, with the Allies ultimately achieving success in protecting their convoys and securing the vital sea lanes. The defeat of the German U-boats in the North Atlantic was a critical factor in the overall victory for the Allies in World War II.

I've included several designer notes throughout the rulebook. I hope you enjoy the game as much as I have enjoyed bringing it to you. "Good Hunting, Captain!"

I want to thank the following people for all of their hard work on this project:

Developer: Joel Toppen.

Artists: Tomasz Niedziński (game box, map, U-boat boards, and cards), Dariusz Buraczewski (counters), Kai Jensen (rule book, playbook & layout), Justin Martinez, and Bruce Mansfield (play aids & scenario layout).

Special thanks to the development team: Kai Jensen, Bruce Mansfield, Jerome Weisen, Jordan Kerhrer, and Allen Martin.

Playtesters, thank you for all of your time and input: Jerome Weisen, Allen Martin, Jordan Kehrer, Jerry White, Bruce Mansfield, Scott Mansfield, John Reid, Tomasz Niedziński, Tony Kinner, Charles Lewis, Greg Amos, and Erich Chaves.

Tony Kinner, from Tony's Board Game Life YouTube Channel. We played several live game sessions so you folks could get an early look at the game. Thank you, Tony.

The War Room YouTube show, Kirk Pfan, Dean Taylor, and Tony Kinner for all of the online promotions they provided throughout the game's development. Thank you, guys!

My family, my wife Tasha, and granddaughter Aria — thank you so much for all of your patience. You guys truly know what it takes to get a game like this to print.

Mike Bertucelli, Designer Fresno, California

Developer's Notes

I had the pleasure of working alongside Mike on several projects over the past 15 years. He served as my developer for both *Navajo Wars* and *Comanchería*. So, when Mike asked if I would work as his developer on his *Wolfpack* game design, my hope was that I could return the favor.

Right off the bat I could see the immersive potential of his design. On the one hand, it's a solitaire game that has what I value most in a solitaire game design: (1) meaningful decisions to be made by the player – not just dice rolling and chart checking; (2) immersive narrative – the player feels like he or she is part of an unfolding story; (3) historic accuracy – Mike has done his homework on this game!

But wait! It's not a solitaire game. Or is it? I just checked the box. It says 1-4 players. It's more than just a solitaire game for the lonely gamer. It's a cooperative game as well! In fact, that's where the game probably will shine best. So, get your buddies together, set up a patrol, and work together – as a wolfpack – to complete your mission, and return home alive.

The biggest challenge with this project from a developer's standpoint was that when I was first brought on board, the rules of the game pretty much just existed in Mike's head. Getting his design intent and vision onto paper took a team effort.

Usually, as a developer (I've served as a developer for Mark Herman, Volko Ruhnke, Ted Raicer, and Craig Besinque), I have access to playtest materials that consist of at least rudimentary artwork for a physical or digital prototype (like TTS or VASSAL), rules, and the charts and tables needed to playtest the game. With **Wolfpack**, Mike had excellent playtest art. The map, the cards, and the counters were all functional and topnotch! But again, the challenge was to get the rules into a print format so that they could be developed took some time. Ultimately, Kai Jensen did an outstanding job of converting Mike's vision into the rulebook format that you see now.

Mike originally wanted me to do the play aids. I created a very rough draft that we were able to use as the baseline for something that would be more graphic and intuitive. Mike wanted the play aids to be something along the lines of what Jerry White does in his games (*Atlantic Chase*). Mike wanted the play aids to both summarize and reference rules from the rulebook. And yet they also needed to be concise. We didn't want to be writing another rulebook on cardstock!

I really didn't feel I was up to the task to take the play aids to where Mike wanted them to go – Jerry sets a pretty high bar! Enter Bruce Mansfield. As you have no doubt already discovered – because who reads developer's notes before they actually play and enjoy the game, right? – Bruce did an outstanding job!

Bringing this game to your table was truly a team effort. From Kai and the rulebook to Bruce and the play aids, to Tomasz Niedzinski and Dariusz Buraczewski creating the original and truly evocative artwork. My involvement was primarily filling gaps, proofreading and checking for errors, and designing the VASSAL module.

Yeah, we should talk about that. Mike has a way of designing games that push the VASSAL software to the limits of its capability. **Tank Duel** has traumatized me... Well, while it's no **Tank Duel**, **Wolfpack** was still a challenge to bring to VASSAL.

On the surface, it looks simple enough. Like attacking a convoy, right? No problem! What could possibly go wrong? Ahh, but then you want to harness the automation capabilities of the software to streamline gameplay. Pretty soon, like a Type VIIC infiltrating a fast convoy bound for Liverpool, I found myself grappling with some big challenges.

The biggest challenge has to do with the two maps. Do I put them into separate windows? I experimented with several variants before I settled upon the method you see in the final VASSAL module. Having Type IX boats and Type VII boats also posed a challenge.

Separate windows for each type was too cumbersome. The boats are too different to layer them atop each other. Ultimately, I opted for the side-by-side method you see in the final VASSAL module.

One of the byproducts of creating a VASSAL module is that the module designer becomes intimately familiar with the game's components. This was a big help in proofing cards and counters in preparation for the game going to print.

I enjoyed getting to be a part of this project. My sincere hope is that you and your friends enjoy the game as much as we enjoyed bringing it to you!

Joel Toppen, Developer Browning, Montana

When Mike asked me if I wanted to be part of the *Wolfpack* team with him, Kai Jensen, Joel Toppen, and Justin Martinez, I jumped at the opportunity. I've known Mike since I started doing work for GMT in 2017 (he was the first developer for *Gandhi*), and I have always appreciated his warmth, generosity, and gaming expertise.

I remember seeing an early draft of **Wolfpack** at a GMT Weekend at the Warehouse several years ago, and already I could tell this game was something special. I love solitaire games, but it can be hard to find games with just the right mix of narrative immersion and meaningful choices. **Wolfpack** pulls this off wonderfully.

My role was to design the Player Aid Cards (PACs). Mike's request was simple to explain but difficult to accomplish: he wanted players to be able to set up the game, pull the PACs out of the box, and just start playing. So I began by looking to the master of such PACs, Jerry White, and studied the ways he was able to break down complex game procedures into simpler components and present that information in accessible ways. His PAC designs for the Skies series (co-designed with Mark Aasted and Gina Willis) and **Atlantic Chase** were particularly useful.

The PACs for these games provided a model for ways to help players manage the procedural complexity of a game like *Wolfpack*. I started with the Sequence of Play, breaking down each phase into its components steps, and designed a chart for each step. I cross-referenced the charts on the PACs, allowing players to focus just on the steps they needed to complete the current procedure. And I added rules references throughout, directing players to the relevant rules page as needed for clarification.

By far the most complex charts to build were for the ASW Move, Search, and Attack procedures. The actions of the convoy escorts serve as the AI enemy of the game, and these escorts behave a little differently when on the Approach Map than when on the Attack Map. I worked closely with Mike to carefully break down the ASW procedures, step by step, and present these graphically. This process also allowed Mike, Kai, and I to clarify the ASW procedures in the rules. This is easily the most complicated part of the game, but I think we found a way to guide players along each step of the process to make it run smoothly.

I played a lot of *Wolfpack* while building, testing, and refining the PACs. I must have completed over 50 patrols as I worked out as many bugs as possible, and I still can't wait to set up and play the finished product. I had a lot of fun working on this project, all the more so because I got to be part of a stellar team. Mike, Kai, Joel, and Justin were terrific to work with. I can't wait to meet up with them at a future GMT Weekend at the Warehouse, select a U-boat, and take on the Royal Navy together.

Bruce Mansfield Bellingham, Washington

U-boat Patrol Data

Wolfpack Crew Notes

You may use this optional sheet to note Crew Enhancement modifications for quick reference during play. GMT grants permission to photocopy this page for personal use.

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