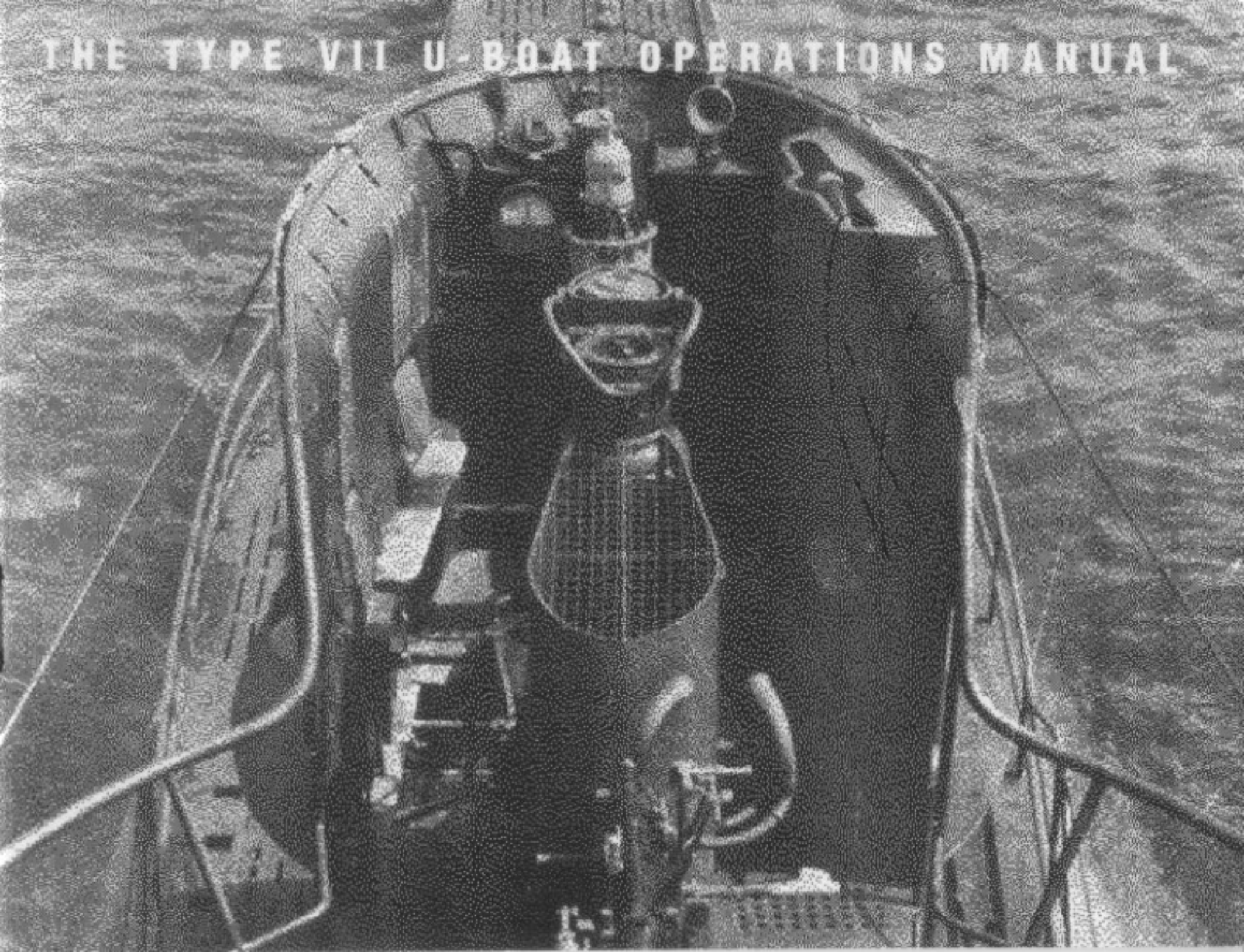
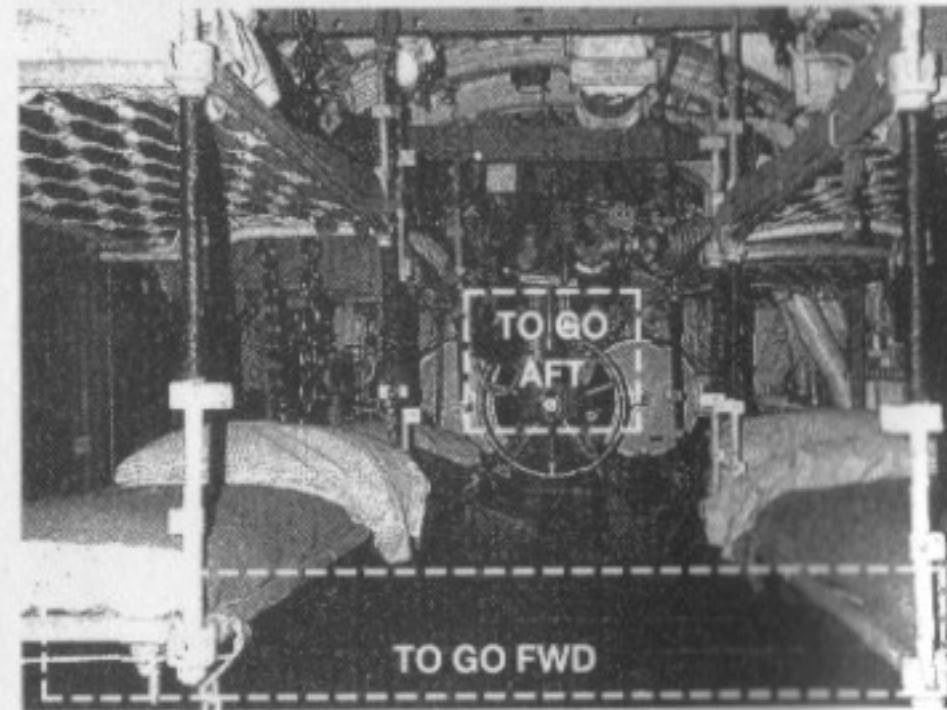
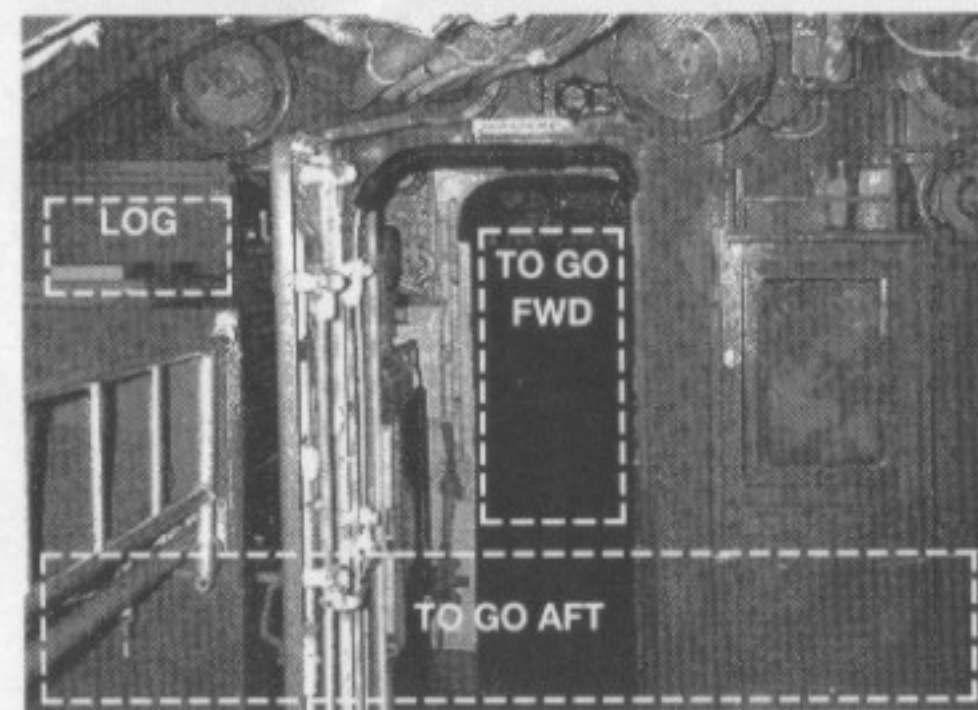
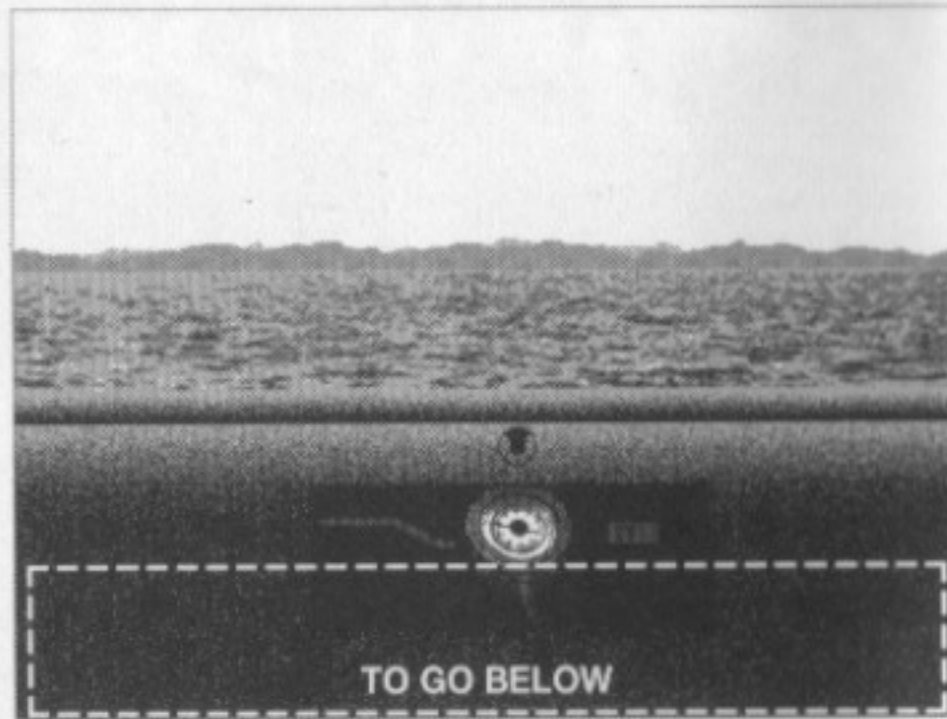
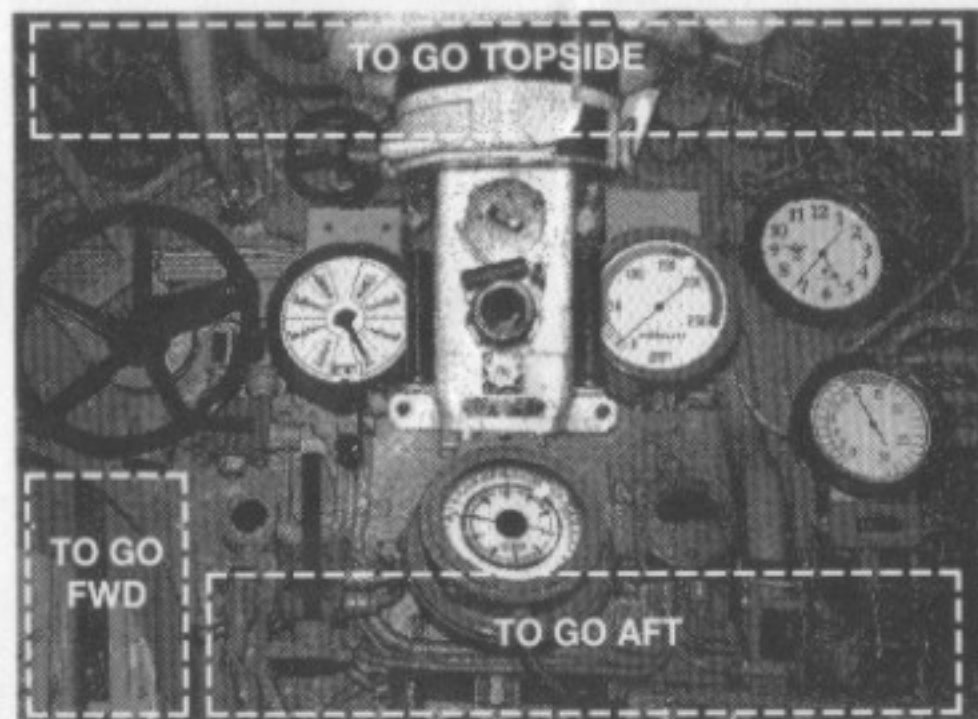


THE TYPE VII U-BOAT OPERATIONS MANUAL





THE GAME

U-BOAT is a campaign game consisting of a series of sea patrols during the opening hostilities of WWII. Patrols begin in the Baltic Sea, extend into the North Sea and North Atlantic Ocean, and finally end somewhere in the Eastern reaches of the Mediterranean.

A patrol starts when you leave a U-boat base, and ends when you return to any U-boat base.

How long you spend at sea on an individual patrol is up to you. You are limited only by your nerve and fuel reserves, and may put into a U-boat base at any time.

Unlike other simulations, you do not choose your patrol from a list, they are assigned to you at the whim of Admiral Donitz safely ensconced behind his desk at Unterseeboot Headquarters in Wilhelmshaven. If you exhibit the bad grace to get yourself killed during a patrol, only that patrol and all the ships you sank during that patrol will be erased from memory.

Once out on patrol you are pretty much on your own. Radio Headquarters (BdU) when you have reached your assigned patrol area to let them know you are on station.

You earn points in the same way as the U-boat Aces of WWII; by sinking ships and accumulating tonnage. If you get within shooting range of the top five U-boat Aces, your name will be added to a permanent list of Aces.

If Admiral Donitz decides you have performed with particular distinction on an individual patrol, you may get a medal.

← Mousedown in the appropriate area to find your way around aboard U-BOAT.

PATROL NO.1

A Training exercise.

Plug your Headphones into the speaker jack on your computer.

Clamp them on and double-click on the U-BOAT application icon to start the game.

In a few seconds you will arrive at the sub pens at Krupp Unterseebootwerks, Kiel.

Sign off for your new U-boat.

You are now on the bridge (conning tower).

Adjust the sound volume by selecting one of the volume controls in the FILE menu at the top left of U-BOAT'S window (or hit the + and - keys on your keyboard).

Mousedown on the bottom quarter of the screen to go below.

This is the Control Room — the nerve center of your boat. Now is an ideal time (while you are safe in port) to familiarize your self with the workings of your craft.*

If you are in a hurry to get underway, mousedown in the top quarter of the screen to go back topside. Mousedown in the [2/3] command in the Commands module to get underway.

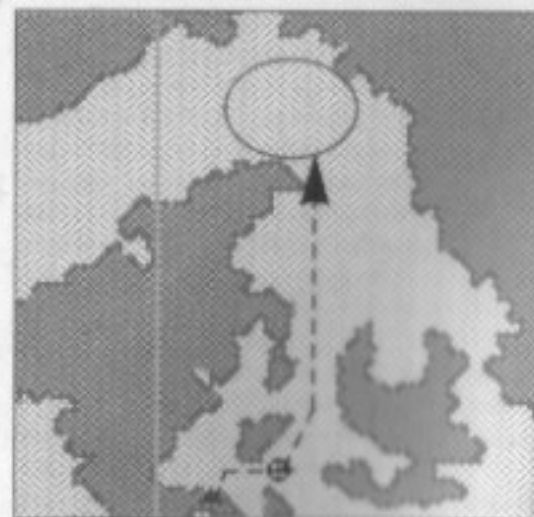
Shortly after clearing port, you will receive a radio message from BdU giving you an area to patrol. Mousedown [CHART] in the Commands module.

The patrol area for training exercises is in the open sea area North of Denmark.

Although it is possible to navigate the narrow channel between the islands from your bridge, for now maneuver on the chart.

Mousedown on [FULL] power.

Steer the course shown in this diagram by ordering left [RED] and



right [GREEN] rudder as needed. Watch the U-boat chart symbol as it turns. Click anywhere to stop turning. Verify your course change in the Deck Log at the lower right of the Chart.

If you run aground, back off immediately: Hit [STOP] followed by [BACK 1/3]. When you have water under your keel (verify in the Deck Log), [STOP] change course and add power.

If you arrive at your patrol area without incident, [RADIO] your position to headquarters. If you receive new orders, chose to either follow them or put into port.

If during your patrol you run across another ship you will have to deal with it.

If a Merchantman (identify the type in the Silhouettes section of the Handbook), attempt to sink it.** The worst that can happen is the Merchantman will escape.

If a Warship, attempt to sink it (good luck), try to outrun it, or [DIVE] deep and hope he goes away.

To return to Kiel: Steer a precise course of due South (180°), along Long. 10°00 East.

To put into Wilhelmshaven: Steer a precise course of due South (180°), along Long. 08°10 East.

Upon returning to port, Patrol 1 will be recorded as completed, and any earned points added to your permanent score.

TO PAUSE THE GAME: CHOOSE 'PAUSE' FROM THE FILE MENU or HIT "P" ON THE KEYBOARD.

TO QUIT THE GAME: CHOOSE QUIT FROM THE FILE MENU or HIT "Q" ON THE KEYBOARD. (EVERYTHING UP TO THE POINT YOU QUIT WILL BE AUTOMATICALLY SAVED.)

TO START ALL OVER FROM PATROL 1: CHOOSE 'NEW GAME' FROM THE FILE MENU.

*See 'How the Control Instruments Work' and 'How the Commands Module Works' in this manual.

** See 'Attack Tactics' in the U-boat Handbook. See also 'How the Periscope and UZO work' and 'How the Attack Computer Works' in this manual.

How the Commands Module works



Orders you give:

RUDDER This is a direct order to your helmsman to steer Red (Port) or Green (Stbd). If you give this order from the Control Room, he will put the helm down and hold it there until you cancel the order with a mouseclick. If you are on the Bridge, or at the scope, that order is modified to mean an absolute 90° course change (no cancel order required).

DIVE This is an order to your Exec to begin descent. Descent will continue until you cancel the order with a mouseclick. The boat will level out at the now current depth. If this order is given while on the surface, the electric motors will be automatically engaged.

SURFACE This is an order to your Exec to begin ascent. Ascent will continue until you cancel the order with a mouseclick. If cancel order is not given then the boat will eventually surface and the Diesel engines will be engaged at 1/3 power.

1/3 2/3 FULL ALL
STOP BACK 1/3 (Engine & Motor room orders) These are direct orders to the Engine room if surfaced, the Motor room if submerged. The throttle setting requested is registered on the Engine Telegraph in the Control room.

Diesel engines (surface) produce speeds of about 4, 8, 12, and 16 knots at settings of 1/3, 2/3, FULL and ALL. Electric motors (submerged) produce speeds of about 2, 4, 6 and 8 knots at similar settings.

REPORT This is a direct order to the various crew chiefs of the boat to report on any damage after an attack (damage takes between 6 to 24 hours to repair).

F (Fire torpedoes) This is an order to your exec to launch torpedoes. All armed torpedoes will be launched.

F Mousedown to order your crew to fire deck gun. This order may only be given from the bridge. The deck gun is ineffective against Capital ships and large Liners.

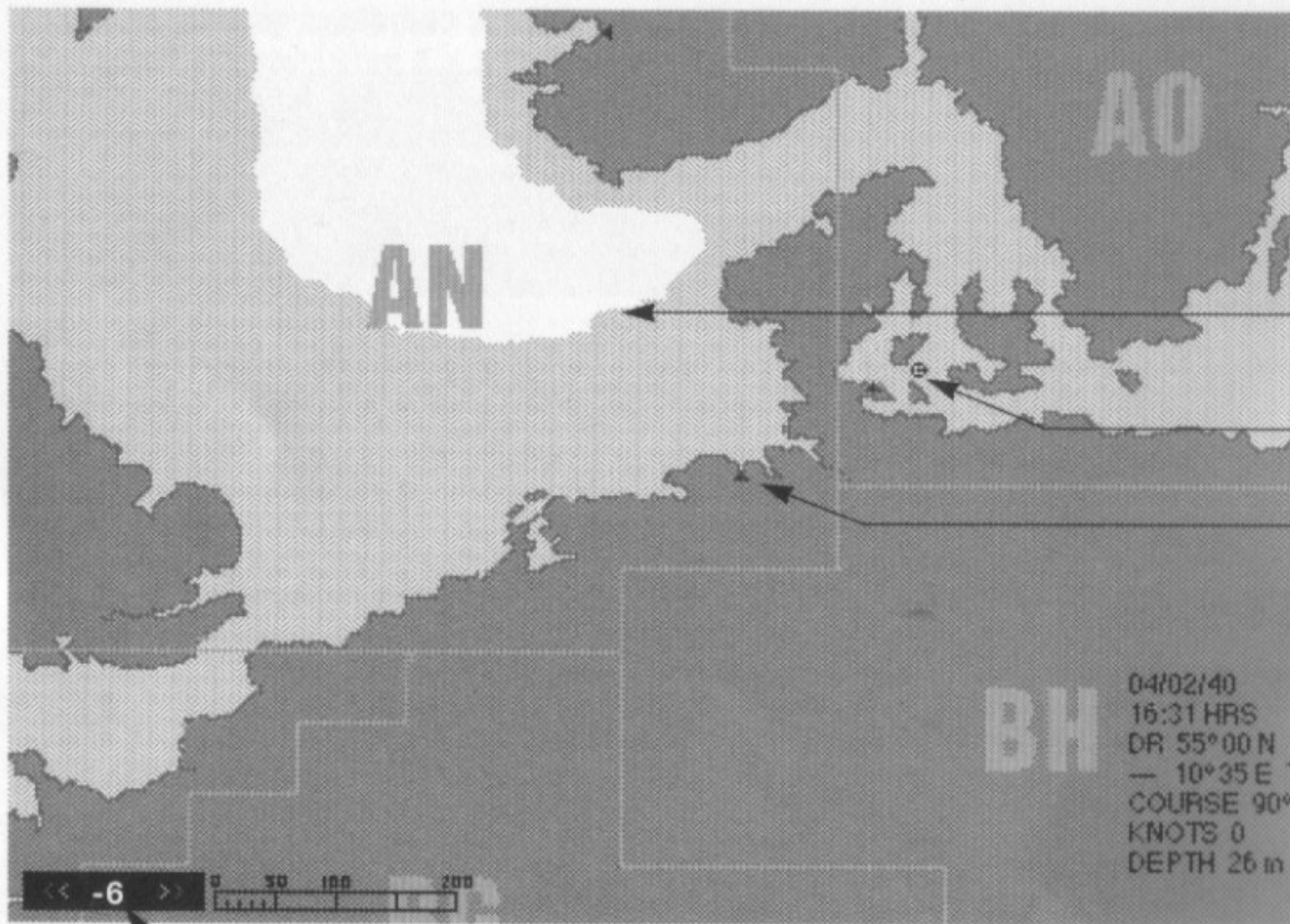
Things you use:

CHART Mousedown to use the chart. See 'How the Chart Works' in this manual.

RADIO Mousedown to send your position coordinates to BdU Headquarters. Operable while on surface only.

● ● Mousedown to use the UZO (attack Binoculars) if on the Bridge, or the Periscope if submerged. See 'How the Periscope and UZO work' in this manual.

ATK. TABLE Mousedown to use the Attack Table. Works in conjunction with the Periscope or UZO. See 'How the Attack Table works' in this manual.



How the Chart works

◀ RUDDER ▶	SURFACE	1/3	2/3	FULL	ALL	F
REPORT	DIVE	STOP	BACK 1/3			F
CHART	RADIO	● ● ●	ATK. TABLE			F

Steering orders given to the Helmsman while viewing chart will be immediately reflected on the chart. Click anywhere to stop turning.

Limits of the Continental Shelf.

Grey areas indicate depths less than 200 meters.

U-boat position symbol.

Click on this symbol at any time to center symbol on Chart.

Principal port symbols.

To make port you must steer a precise course.

Geographic positions of all ports with U-boat facilities is shown in the Handbook.

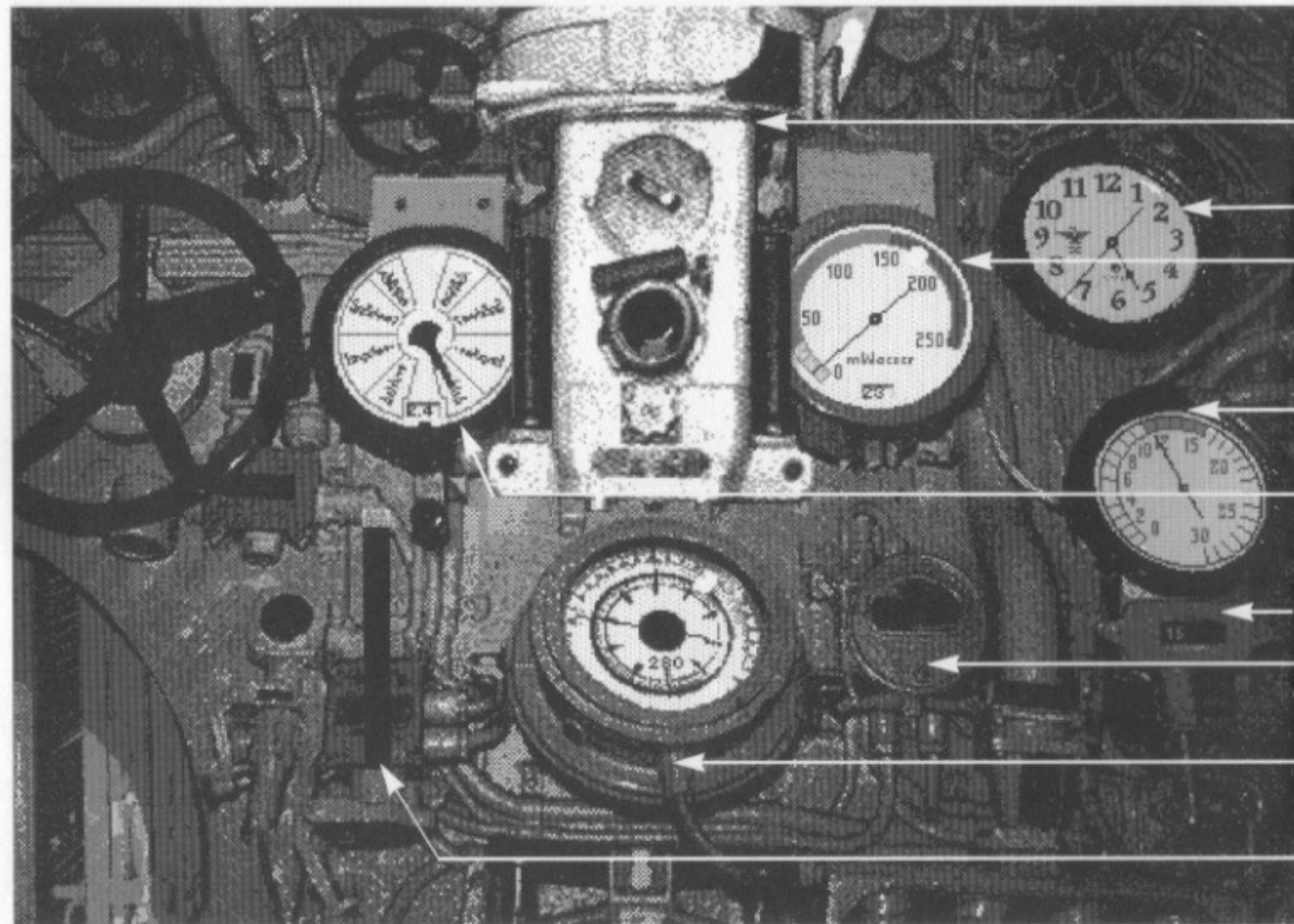
Navigation data.

The ship's position in geographic coordinates is updated every 5 miles.

Off soundings (depths greater than 150m) are recorded as ---.

Time scale.

Click to speed up or slow down passage of time. Applicable while viewing Chart only.



How the Control Room instruments work

Clicking on any of the instruments in the Control Room will yield a brief description.

The Periscope. Your eyes when submerged to a depth between 11 and 16 meters. Click on the eyepiece or mousedown on ●●● in the commands module to 'Up Periscope'.

The Ships Clock. Time reverts to a more realistic rate when not viewing chart.

The Gross Depth Meter. Shows depth of vessel to 250 meters in 10 meter increments. Here, the vessel is submerged approximately 10 meters below the surface. The Sounder readout at the bottom of the dial shows distance to sea bottom. Here, 23 meters below. If off soundings, (depths greater than 150m) this readout would display ■■■.

The Shallow Depth Meter. Shows depths to 30 meters in 1 meter increments. Here the vessel is 11 meters down. The shaded band at the top of the dial shows periscope depths.

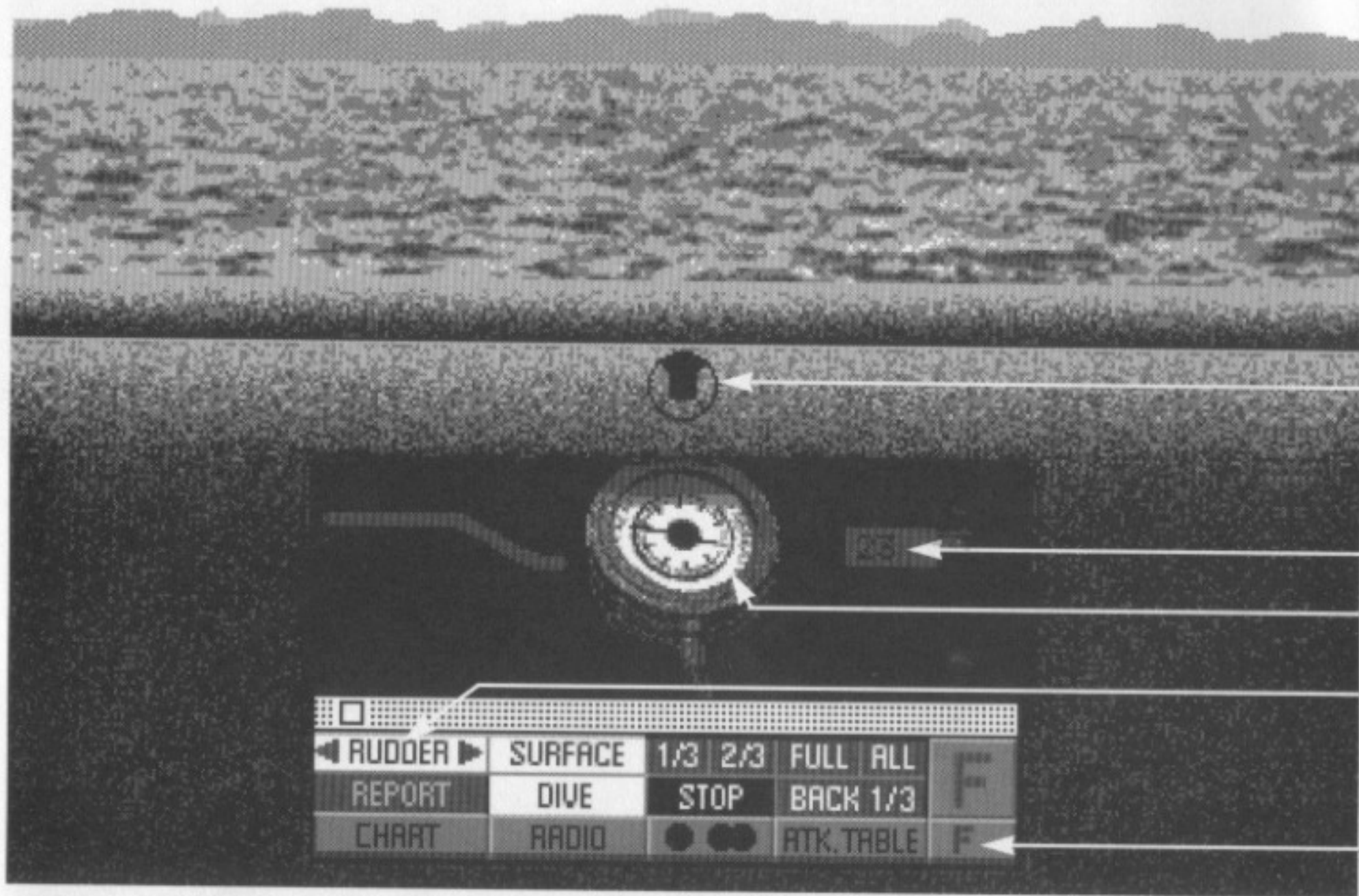
The Engine Telegraph. Shows current engine, or motor setting. The Knotmeter readout at the bottom of the dial shows current speed in knots. Here the electric motors have been ordered set at 1/3, producing a speed of 2.4 knots.

The Mechanical Log. Shows distance sailed, in nautical miles, since last leaving port.

The Ammeter. Shows charge state of boat's batteries. The boat runs exclusively on batteries when submerged. Here the dial hand is all the way right showing full charge.

The Gyrocompass. Shows boat's direction (course). North (0°) is straight up. Here the boat is seen to be making a course just North of West (280°).

The Fuel Column. Shows the amount of diesel fuel remaining in your bunker.



How the Bridge instruments work

◀ RUDDER ▶	SURFACE	1/3	2/3	FULL	ALL	F
REPORT	DIVE	STOP	BACK 1/3			
CHART	RADIO	● ●	ATK. TABLE	F		

Mousedown while on bridge to use the UZO (Attack Binoculars).

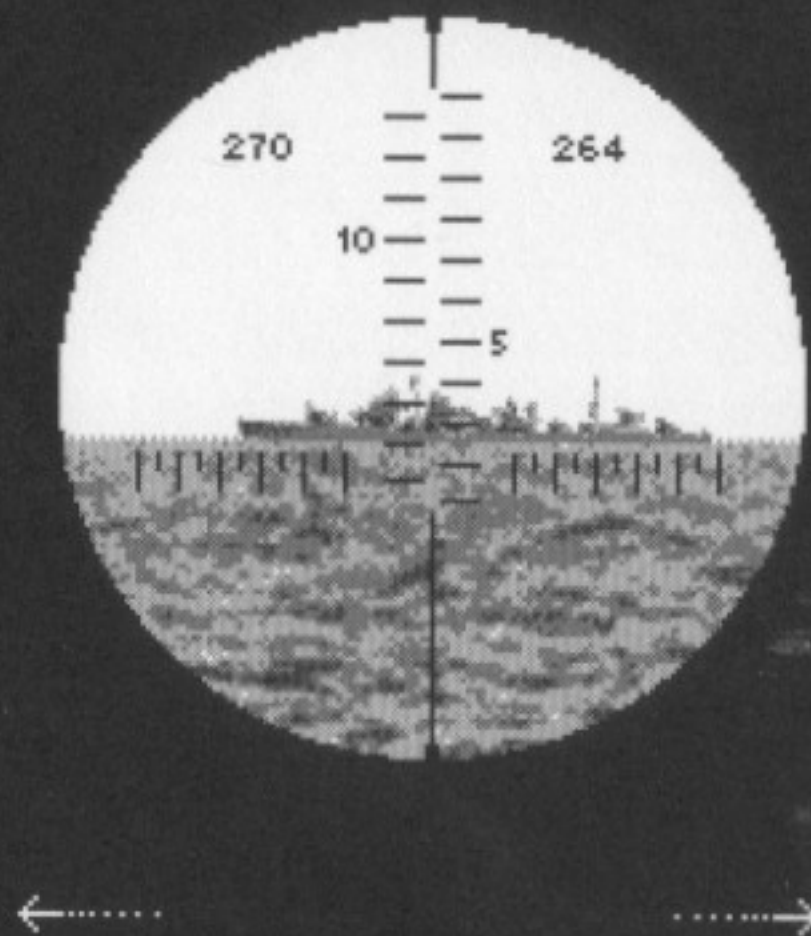
The View Circle. Here your view is straight ahead, looking out over the bow. Mousedown in a circle quadrant to change your view to that quadrant. Note that this does not alter the course of the boat.

The Depth Meter Repeater.

The Bridge Compass. Here the course is shown to be just North of due West (about 180°).

Turning. Orders to the helmsman from the bridge are automatically interpreted to mean a 90° course alteration. If for example, a vessel is spotted off your port side (270°), it is more efficient to turn the boat in that direction than it is to change your view.

Fire Deck Gun. This order may only be given from the bridge. Successive hits by your deck crew will slow, and eventually sink, all but very large ships. Ammunition is limited to 20 rounds.



How the Periscope and UZO work

◀ RUDDER ▶	SURFACE	1/3	2/3	FULL	ALL	F
REPORT	DIVE	STOP	BACK 1/3			
CHART	RADIO	● ●	ATK. TABLE			F

The Periscope and UZO (Attack Binoculars) have identical features.

Your course and bearing are displayed in the upper left and right of the view reticle.

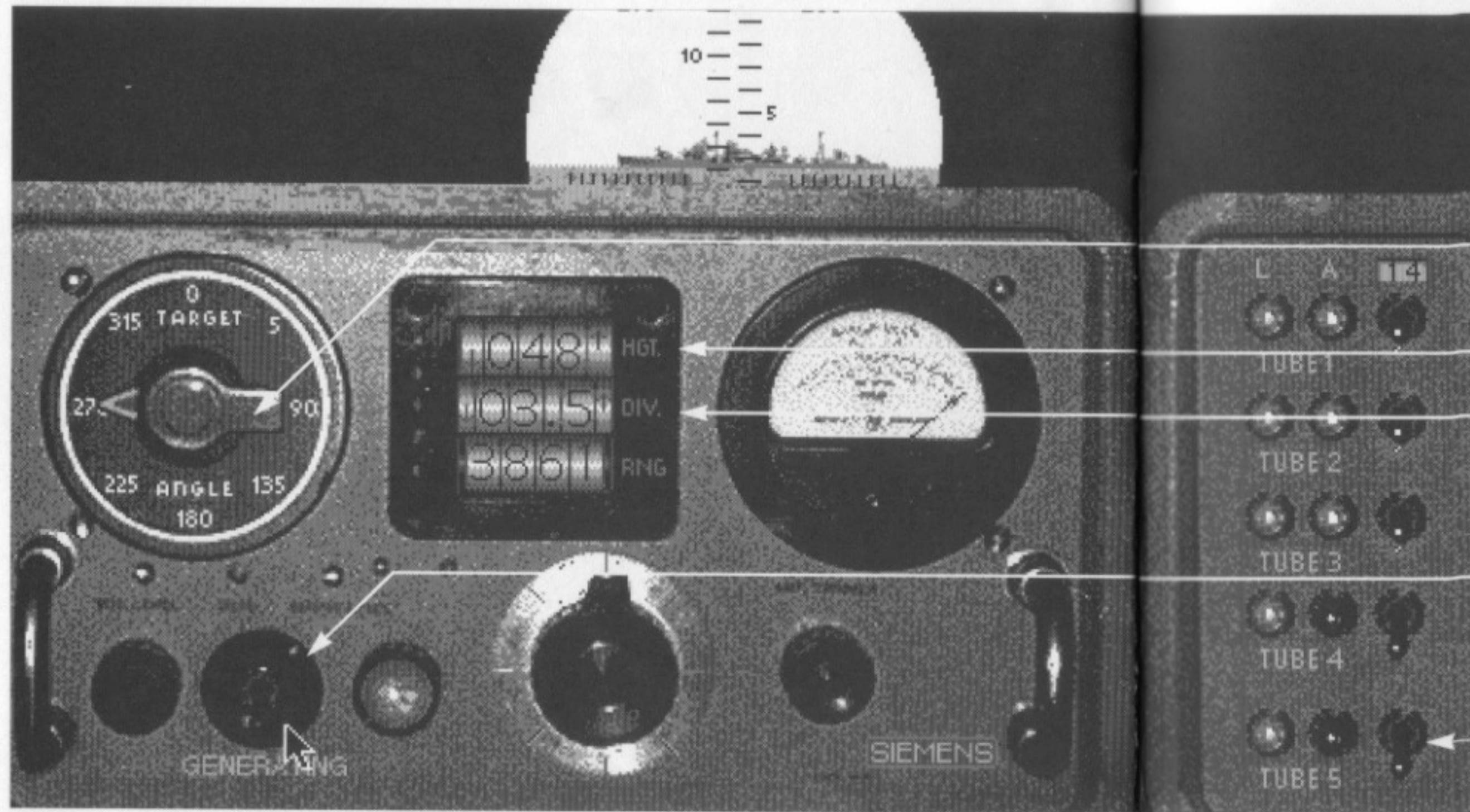
The Division lines in the Range Finder should be read up from 0 (at sea level) to the highest point of the target. The example pictured here shows the top of the target's fore-mast is approximately 3 1/2 divisions high.

Center the target by holding mouse down on the dashed arrows. The solid portion of the arrow gives you a coarse adjustment; the dashed portion — a fine adjustment.

Click on ATK.TABLE to bring up the Attack Computer. This will freeze the view reticle giving you ample time to arrive at a torpedo solution.*

Click in the view reticle to put away the UZO or to down periscope.

*In practice, the Attack Computer was attended to by other crew members.



How the Attack Table works

◀ RUDDER ▶	SURFACE	1/3	2/3	FULL	ALL	F
REPORT	DIVE	STOP	BACK 1/3			F
CHART	RADIO	● ●	ATK. TABLE			F

The Attack Table is accessed from either the UZO or SCOPE.

Click in the view reticle to put away.

— Mousedown on the TARGET ANGLE indicator to match the apparent angle of the target. In this case 270°.

— Look up the target's height (Handbook) and enter it by clicking the up or down arrows on the readout.

— Count the Divisions on the Scope/UZO Grid, in this case 3 1/2, and enter it.

— Generate a Torpedo solution by clicking this switch. The green range light will illuminate if you are within effective torpedo range.

— Loaded torpedoes (green indicator light) may be switched to armed-and-ready-to-fire with these switches. Upon giving the order to fire, all armed torpedoes will be fired. Reloading is automatic (about 1 hour).

Total number of remaining torpedoes is shown in the readout above switches. Max is 14.

U-boat Aces (click on the Warlog title in your Log book to see if you have joined their ranks)



Otto Kretschmer
266,629 tons, 44 Ships



Wolfgang Luth
225,712 tons, 43 Ships



Erich Topp
193,684 tons, 34 Ships



Karl Merten
186,064 tons, 29 Ships

Medals are awarded according to this formula: number of days on patrol x 50 + number of ships sunk x 100 + tonnage x .10.

Significant Game Dates:

05/21/1939 Germany and Italy sign the Axis "Pact of Steel".
09/03/1939 Britain and France declare war with Germany.
04/09/1940 Germany invades Norway.
05/14/1940 Germany controls all Norwegian ports.
05/10/1940 Germany invades Belgium and France.
05/30/1940 Germany controls all French ports.
06/11/1940 Italy declares war with Britain and France.

Credits:

Written and Illustrated by Rene Vidmer. Technical Advisor: Robert Madison. Design & Production: Krimmel/Soman Inc.
Box Illustration: Sean Harrison. Photography: Stanford Smilow.

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(Much of the glossary in the Handbook is lifted from Gannon's excellent "Operation Drumbeat")

Acknowledgements:

Much of the research on U-boat was conducted by Robert Madison, who supplied me with hundreds of pages of detailed information as well as photos and even some sound clips. He is largely responsible for what rings true in this game. I, of course, am responsible for what does not. Stan Smilow earns my gratitude also, not only for his constant encouragement and support of all our projects, but for turning up such rare gems as a wartime edition of Talbot-Booth's *Merchant Ships*.

Author's notes: Operating a U-boat is not as easy as we make it seem. The real attack table, for example, was a far more complex instrument than what appears here. These are compromises, for a game should not be as hard to learn as a spreadsheet program. However, for those of you who miss seeing blue water and bright blue skies on your screen, this is not a compromise. Having spent many months sailing the waters of the North Atlantic, let me assure you there are very few days when the sea is not a leaden grey, the sky a milk-white haze. Wait until we get to the Caribbean.
Rene Vidmer, New York



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