

Computer Bismarck

The player's manual. Version 1.4.0 — Tronsoft Games.

You never see her. You see a chinagraph cross on a hex chart, the time the report was made, and a field of hexes that grows every watch you fail to find her again. Everything else in this game follows from that.

The board

A hex map of the North Atlantic built from real coastlines: Greenland, Iceland, the Faroes, Scotland, Ireland, Norway, Biscay and Newfoundland. **Sixty nautical miles to the hex, six hours to the watch.** The pack ice edge is ruled by latitude and the minefield off the Vestfjords closes the Icelandic side of the Denmark Strait, leaving a navigable channel three hexes wide. That defile is the point of the map.

The board is **fixed**. It is the same in every game. What varies is the weather, the sortie, and what each side knows — not the ocean. A good officer should not be competing with the luck of the sheet.

The watch

A watch is six hours and both sides move at once. You give orders to as many forces as you like and then work the watch; there is no "your turn". Within a watch, things happen in this order:

Stage	What happens
Weather	Systems track west to east; fog banks drift along the ice edge.
Movement	Every ship on both sides moves along the water she can steam over.
Convoys	Merchant convoys make their passage.
Search	Lookouts, patrol lines, shore-based aircraft, carrier searches and direction-finding.
Contact	Forces that have found each other close the last sixty miles and fight.
Air strikes	Striking forces attack the plot they were flown off against.
Torpedoes	Destroyers attack in the dark.
Upkeep	Fuel is charged, damage worked on, reports come in, the score is read.

Reports, plots and the furthest-on field

A **plot** is a report, not a ship. It says where something was, at a stated time, and what the reporting officer believed it to be. The shaded hexes around the cross are every hex she could have reached since, at her estimated speed — the furthest-on field. It is drawn in hexes because that is what the rules hold.

A **firm** plot means a shadower has her in sight. It has no field at all: you know where she is. The moment your shadower is thrown off in a rain squall, the field appears and starts to grow. Direction-finding gives a good bearing and a doubtful range, so a D/F fix puts the cross in roughly the right direction and quite possibly the wrong place.

Giving orders

Click a counter to take that force in hand; click the same hex again to step through the ships stacked in it. Click open water to lay off a course. Her track is drawn along the water she will actually steam over. With a force in hand the hexes she can reach this watch are outlined in brass, and the outline follows her ordered speed.

Order	What it does
Speed	Economical, cruising or full. Fuel is charged at a rate that rises steeply with speed: a chase burns the bunkers a patrol would not.
Engage	She will fight anything she meets.
Shadow and report	She holds station one hex off and keeps the plot firm rather than closing into the enemy's guns.
Avoid action	She will try to break off. Whether she can depends on her legs, the visibility and the dark.
Hold a patrol line	She stays on her billet and sweeps the hexes around it. A ship patrolling searches far better than one merely passing through.
Fly off a strike	A carrier attacks a plot within four hexes. The aircraft go to the position on the chart, not to the ship — they can find a friendly cruiser instead.

Why a patrol line matters

This is the single most important order in the game and it was missing until version 1.2.0. A cruiser standing in the Denmark Strait used to detect exactly as well as one that happened to be passing, so a three-hex defile with two cruisers in it could be walked straight through. Measured over the sweeps, making patrol a real search order moved first contact from watch 14.8 of forty to watch 10.7, and the Royal Navy's score from 310 to 379.

Coastal Command

Six squadrons of shore-based aircraft fly from Londonderry, Hvalfjörður, Scapa and Plymouth. Click a squadron in the rail and the water it can reach is shaded; click a hex inside that water and it will search there. Whatever you leave alone the staff assigns when you work the watch, so the aircraft are never idle whether or not you want to command them yourself.

Each squadron sweeps a small area — the hex it is sent to and its six neighbours — and those hexes are marked on the board, so two squadrons searching the same ground is a thing you can see and correct. Aircraft do not fly at night or in a gale.

Gunnery

You do not order an attack. If two forces end a watch in the same square of ocean and one of them wants an action, there is one. Actions run in three-minute rounds.

The salvo ladder. A director firing at the same mark at a steady range gets on, and its chance of hitting rises sharply over the first few rounds. When the range walks, the ladder is lost and has to be rebuilt. This is why a force that keeps changing the range shoots badly.

Belt and deck are separate. At long range shells fall steeply and a greater share of hits land on the deck. A thin-decked battlecruiser is in real danger at twenty thousand yards and considerably safer close in. This is a

decision, not a detail: closing the range protects your deck and exposes your belt.

Oil is the leash. A raider a long way from a tanker cannot spend her bunkers on speed, and that is what lets a slower pursuit close. A ship holed forward and trailing oil is both slower and easier to find.

The gunnery report

After an action the report opens: the range at each round, who fired at whom, how many guns and how many hit, what rung of the salvo ladder the director had reached, and what each hit did. It is worth reading. You can watch a director climb the ladder as the range steadies and its chance of hitting go from a fraction of a per cent to ten per cent a gun — which is the whole argument for holding the range. The Last Action button in the bar brings the most recent report back.

Scoring, and par

Both sides score. Sinking warships, sinking merchant tonnage, getting raiders home or stopping them — each is worth points. Your total is then read against **par**: what a first-class staff makes of the same position, fitted by playing each scenario many times with the best machine commander on both sides and taking the mean. Beating par is the test.

Scenario	Watches	RN par vs green / practised / expert	KM par vs green / practised / expert
Rheinu ■ bung	40	400 / 424 / 292	567 / 520 / 524
The Denmark Strait	20	348 / 296 / 206	454 / 492 / 530
Sortie of the Twins	40	383 / 370 / 311	809 / 774 / 758

Par is fitted PER OPPOSING STAFF. Facing a green opponent is easier, so the bar is higher; facing an expert is harder, so it is lower. Reading one number whatever the setting would have made the easy setting generous and the hard one harsh. The two sides also do not score on the same scale, which is why the verdict is read against par for the side you held rather than against your opponent's number.

What the difficulty setting honestly buys

The quality of the opposing staff is measurable, and it changes the *shape* of the operation rather than simply making it harder. A practised German staff breaks off the raid at the right moment and gets home in 68 per cent of games against 57 per cent for a green one — and pays for it in tonnage, roughly 17,000 tons against 20,000. Skill there is a trade, not a bonus.

Measured over 220 games a setting, a better Royal Navy staff holds contact longer: 7.73, 9.04 and 10.14 watches in contact across the three settings, a difference that is monotone and statistically resolved. Earlier releases could not demonstrate this and the manual said so; version 1.2.0 can.

Known limits

The German side wins Rheinu**■**bung rather more often than the history suggests. Par is fitted to the game as it plays, so the verdict is fair, but the balance is still being worked on and is stated here rather than quietly left for the player to discover.

There is no audio in this release, and touch controls have not been tested. Saved games need browser storage; a page opened straight from a file is refused storage by the browser, and the game says so on its opening card.

Disclosure

"Computer Bismarck" was the title of a wargame published in 1980 by Strategic Simulations, Inc., long out of print. SSI has no connection with this game and has not endorsed it. No code, artwork, data, maps, scenarios, tables or text has been taken from that game or from any other published work. Ship names, places and dates are matters of historical record.