Scenario Description

Welcome to the Embarked Units tutorial.
This is the second in a series of tutorials designed to teach players the fundamentals of surface operations in Command. In this tutorial, the following topics will be covered:

- Conduct embarked aircraft operations
- Conduct embarked small boat operations
- Operate visual, electro-optical and infra-red sensors

Pop-ups will appear with important messages during this scenario. You can find a PDF of them in the documents folder that comes with these tutorials. The default location is: C:\Program Files (x86)\Command Modern Operations\Scenarios\Tutorials\Surface Warfare Tutorials\Documents.
For Steam users, they will be located at: C:\Program Files (x86)\Steam\steamapps\common\Command - Modern Operations\Scenarios\Tutorials\Surface Warfare Tutorials.

Scenario Briefing

Welcome to Basic Surface Operations 1.2
In this scenario you will have command of a Dutch patrol boat and its embarked boats and aircraft. Using pop-up messages like this, you will be guided through the following topics:

- How to control the heading and speed of your ships
- How to operate surface ship sensors
- Boat operations
- Aircraft operations
- How to engage surface targets with guns

Your mission is to locate and destroy an armed pirate vessel operating in your area.
In this tutorial as with others in this series multiple pop-ups will appear with important messages. If you need to review any of these later, you can open the message history in a second window by pressing Ctrl+M and scrolling to the appropriate message.
This tutorial is designed to stop time compression with pop-ups at important moments. Surface operations can be slow paced due to the speeds and distances involved, so feel free to use time compression in the tutorial knowing that any significant developments will be accompanied by a time-stopping pop-up.

To make use of this in your own gameplay, or fine-tune pop-up settings for this tutorial go to Game > Game Options > Message Log and select 'Raise Pop-Up' for any event that you wish. Useful pop-ups for Surface operations include 'Contact Change', 'New Contact', 'Special Messages' (this should always be on), 'Unit Damage', 'Unit Lost' and 'New Weapon Contact'.

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Message 1

We have had reports that our target is somewhere to the north. It is dawn, there is thick cloud cover, fog and light rain so visibility will be extremely poor.

As discussed in Surface Tutorial 1.1, the average useful range of a surface-search radar set mounted on a ship is approximately 12 nautical miles. Due to this limitation, many ships carry helicopters which can improve situational awareness by climbing to high altitude to maximise the range of their radars, as well as using their speed to rapidly close with detected contacts and identify them using visual, electro-optical (EO) or infra-red (IR) sensors.

Your patrol boat carries an NH90 NFH: a modern, multi-role naval helicopter equipped with dipping sonar, sonobuoys, ESM equipment, electro-optical sensors, and a powerful long-range surface search radar. Let's set a course for our ship, and then launch the helicopter to get a better picture of our surroundings.

Plot a course to the north (F3) and set your speed to Cruise (F2).

Bring up the Air Ops Menu (F6), select the helicopter and click the 'Launch Individually' button.

Message 2

Now that our helicopter is in the air, let's get an idea of what is nearby. You may recall from Surface Tutorial 1.1 that the chief limitation on the range of surface-search radars is the radar horizon, and that as our radar receiver increases in altitude the range to the radar horizon increases.

Our helicopter has a maximum altitude of 13,000ft, which would result in a radar horizon of 161 nautical miles--however due to the cloud ceiling currently being at 2,000ft we will use this as our search altitude to allow our visual sensors to detect contacts and classify detected contacts. The radar horizon at 2,000ft is 63 nautical miles; a vast improvement over 12 nautical miles!

Turn on the helicopter's radar (F9) and climb to an altitude of 2,000ft.

Message 3

We've detected a surface contact, but we have no clues as to its identity. Active sensors like radar and active sonar send out energy and analyze the return to detect objects. They are excellent at detecting contacts and determining their location, speed, heading, altitude-- However, with the exception of some very high-end systems, they are unable to determine the identity of the contacts they detect. This is where passive sensors like visual, ESM and passive sonar come in. Passive sensors do not send out energy, but analyse energy that is emitted by other platforms in order to detect and classify them. Passive sensors are somewhat less effective at determining the exact position of a contact, but they are excellent at classifying and identifying contacts.

In this tutorial we will be using radar to detect surface contacts, and then using visual sensors to identify them. Let's take a look at the sensor types we have available:

Mk1 Eyeball: All ships, aircraft, land units and submarines with a crew automatically keep a lookout using the naked eye; the Mk1 Eyeball (submarines use periscopes at periscope depth and have bridge lookouts while on the surface).
The ability of the Mk1 Eyeball to detect other ships, aircraft and submarines is dependent on time of day, weather, and sea state as well as the size, distance, and speed of the target platform amongst other factors.
Under certain conditions, the Mk1 Eyeball can make detections at very long ranges, e.g. a lookout on a surface ship can spot an aircraft many miles away if the aircraft is contrailing, or conversely a lookout in an aircraft may spot a ship at a very long distance if the ship is leaving a wake. Both of these specific situations, and many others, are modelled in Command.

Magnified Optics / Electro-Optical (EO): The most basic magnified optic sensor is the binoculars, allowing detection, classification and identification of contacts at longer ranges than the Mk1 Eyeball, without improving the ability to see at night, or through fog, rain or smoke. EO sensors include television (TV) cameras, and charge-coupled devices (CCD). There are a variety of these sensors in the Command database, each with their own characteristics. Some are great at searching, some are great at classifying contacts detected with other sensors, and some are good at both.

Low Light Level TV (LLTV) / Night Vision Goggles (NVG): LLTV and NVG sensors amplify existing light to produce an image that is visible to the human eye. NVGs are typically used on smaller platforms such as tactical aircraft, land units or small boats and allow improved detection and classification of contacts under low light conditions. LLTV sensors usually include a degree of magnification and are often found on ships and larger aircraft.

Infra-Red (IR): IR sensors detect heat, allowing them to detect contacts irrespective of ambient light level. IR sensors are able to effectively see through smoke, fog and precipitation--although thick smoke or precipitation may reduce detection range. IR sensors are excellent for searching for surface ships as the heat they emit makes them stand out clearly from the cold of the ocean; for the same reason, IR sensors are also able to detect snorkelling submarines at long range.

Laser: Laser sensors are not used to search for contacts (although a laser-warning receiver [LWR] can detect the presence of laser energy), but they are very useful for determining the precise range to a contact detected by other sensors, or designating (also known as 'painting') targets for laser-guided weapons.
Your patrol boat is equipped with LLTV and IR cameras and a laser range-finder. Your helicopter is also equipped with FLIR, CCD/LLTV and a laser ranger/designator, while your RHIBs are equipped with NVGs.
Now, we'll close in with the helicopter to identify the detected contact. Set a course for your helicopter towards the detected contact (F3), and set the altitude (F2) to 2,000ft and the speed to Cruise.

Message 4

You've positively identified a surface contact, but it's not the one we're looking for. With only a few hours to identify a single vessel out of many unknown contacts, we will make use of our embarked helicopter and boats to close with and identify multiple contacts simultaneously.

When you detect a suitable contact, launch a RHIB to identify it by opening the Docking Ops window (F7), selecting a RHIB and clicking 'Launch Individually'. Keep an eye on fuel consumption and range for your deployed RHIBs and helicopter. You can recall embarked units be selecting them and pressing 'B' (Return To **B**ase).

Message 5

The Rigid Hulled Inflatable Boats (RHIBs) carried by your patrol boat have a maximum speed of 40 knots for short bursts, and a range of 120 nautical miles at 30 knots or 150 nautical miles at 15 knots. Given that they are slower and have shorter ranges than your helicopter, it is advisable to use the RHIBs to identify nearby contacts along the intended course of your patrol boat and use the helicopter to identify distant contacts or contacts that would require sending a boat on a course opposite of the intended course of your patrol boat (i.e. south in this scenario)

Continue to detect, close with and identify surface contacts using your patrol boat and it's embarked helicopter and small boats.

Message 6

We've spotted the pirate vessel and positively confirmed its identity. You could use the 7.62mm machine guns on your RHIBs to engage the pirate vessel, however weapons of this caliber are unlikely to cause significant damage to a ship and their short range exposes your units to return fire.

Select your patrol boat, press F1 to order an automatic attack and then click on the pirate vessel. Your patrol boat will automatically move towards the pirate vessel and engage when it comes into weapons range.

You can leave your helicopter or boats in the vicinity of the pirate vessel to track their position while waiting for the patrol boat to close, or order them to return to the patrol boat by pressing the B key. If you lose sensor contact with the pirate vessel you will need to re-locate it before engaging.

Win

Congratulations! You were able to coordinate a patrol boat, helicopter and small boats to find a pirate vessel before engaging it with guns and sinking it.