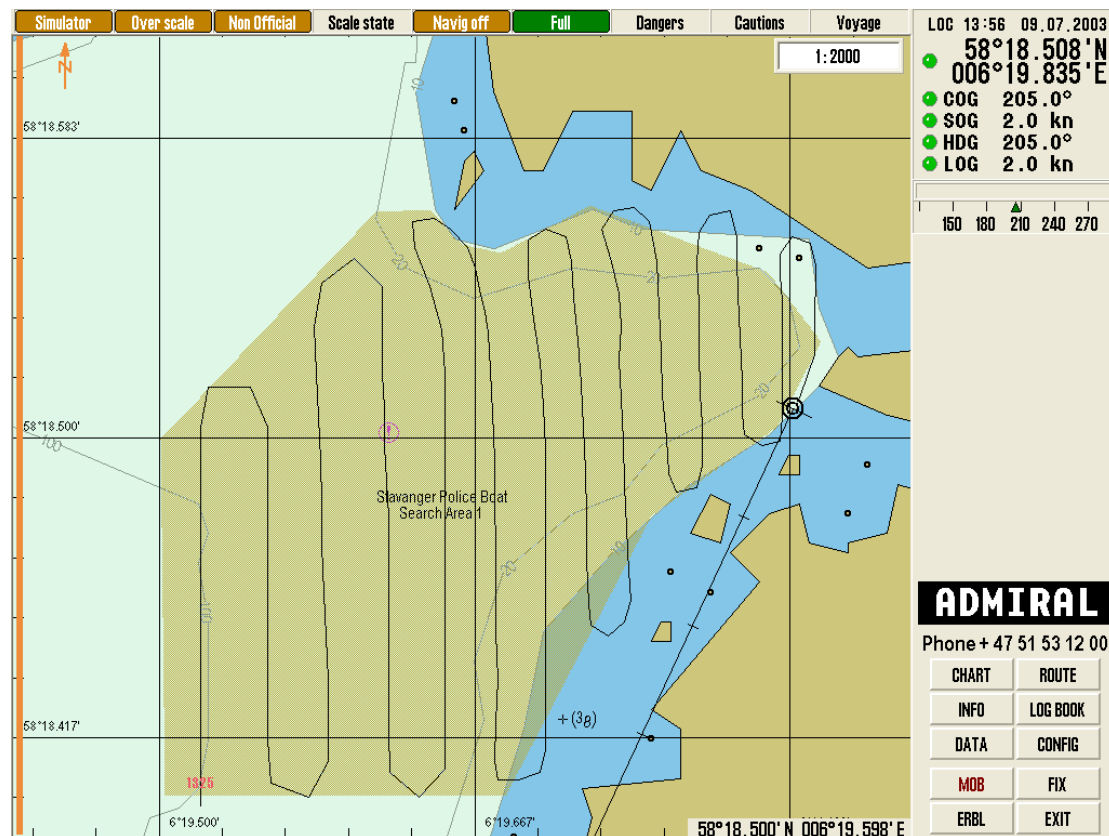


Admiral Case Study 1 – Missing Diver

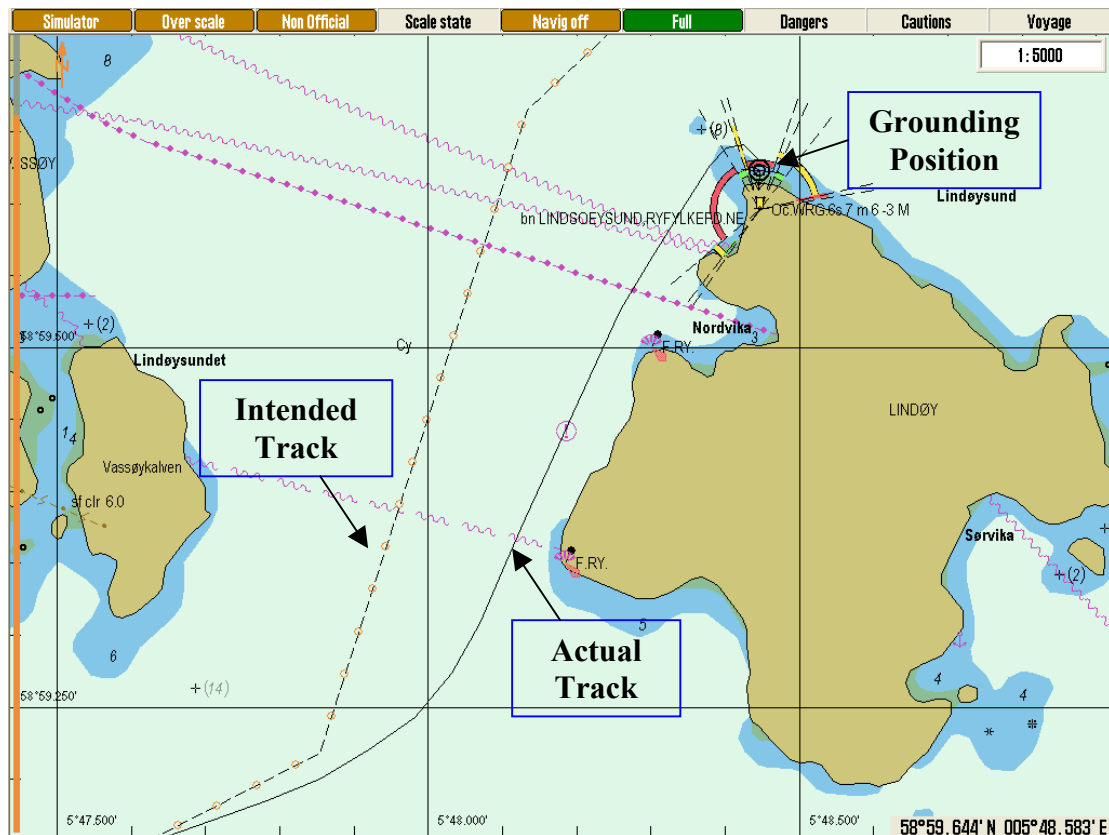
During the spring of 2003 the Stavanger Police boat took part in an extensive search for the body of a missing scuba diver in an area near Egersund on the South West coast of Norway. Using the Admiral electronic navigation system the police officers were able to create search areas along the coast on the navigation screen and monitor their progress using the past track function. Using the print screen facility they were able to document the areas they had searched, showing the past track of the vessel. This information was enclosed as attachments in their final report.

Speaking later officers commented that the ability to easily and quickly generate this information from the Admiral system was a major benefit in producing a comprehensive and timely report.



Reconstruction of example search area and past track history.

Admiral Case Study 2 – Court Hearing



In February 2003 the car ferry Tau, sailing in thick fog from Stavanger to Tau, ran aground on the northern tip of Lyndøy. No one was injured and the vessel suffered only minor damage. Admiral Maritime Electronics were invited by the MD of the operating company to present a reconstruction of the grounding at the subsequent board of enquiry.

The reconstruction was shown to the court using a video projector. The navigational planned track was indicated and a realtime simulation was shown to illustrate the actual track of the vessel. The intended wheel over to port was delayed by concern about the proximity of the south bound ferry in the channel. Insufficient action was taken to regain the planned track, which resulted in the radar return from Lyndøy disappearing into the ground wave on the starboard side. A double ended ferry, the first point of contact was the forward rudder which was forced hard over to starboard resulting in an immediate 150degree alteration of course to starboard. The vessel ran aground before the machinery could be reversed.

The Captain commented that had the ferry been fitted with an electronic navigation system the constant presentation of positional information would have assisted him to ascertain the vessel's position relative to navigational dangers and to take the necessary corrective action and thus may have prevented the incident.

Admiral Case Study 3 – Ambulance Boat

The 19M Ambulance Boat, Rygerdoktoren, entered service in July 2002. The operating concept was for a high speed vessel capable of reaching patients throughout the large number of inhabited islands and remote fjords in the Ryfylke area.. Built by Brødrene Aa in Hyen Norway she represents the latest technology in carbon fibre sandwich construction. In order to meet the reaction time recommendations of clinical advisors an operating speed of 35 knots and a sustainable top speed of 44 knots was specified. Two 1000HP diesels drive Kamewa water jets giving unprecedented manoeuvrability.

The coast of Norway is an unforgiving marine environment and navigating at night, at high speed and on potentially life saving missions presents navigational challenges rarely encountered in commercial operations. The absolute necessity for an accurate, clear and easy to operate navigational system was obvious and high on the operator's priority list.

Admiral has exceeded all the requirements and expectations. Accurate and clear positional information, full system control via the trackball mounted on the Captain's armrest, high resolution screen presentation both by day and night. These are some of the main factors which have contributed to much reduced stress levels on the bridge and a higher degree of navigational safety than has ever been previously available.

