

## **Vessels Monitoring of South African Fisheries**

Marine and Coastal Management (MCM) has awarded a contract to Thales Electronics South Africa for the implementation of a Vessel Monitoring System (VMS).

With the co-operation of companies trawling in deep waters like I&J, Sea Harvest as well as foreign vessels, Phase 1 of the VMS implementation is now up and running. Thales's own Locator software is in place and position reports are being transmitted to the operations room in Cape Town.

Phase 2 of the monitoring system will see secure vessel units being fitted on-board vessels operating in mid-water fisheries such as hake longliners. The units will not only provide a monitoring facility, but will provide information for scientific research. Warren Scott of Thales commented: "The system should not only be viewed as a surveillance system, but as a safety feature that will provide the exact location of a vessel in a time of crisis."

The importance of monitoring an Exclusive Economic Zone has been recognised by many countries around the world. Thales's technology is currently being used in the USA, the UK, Canada, Morocco, the Falklands and Iceland. Due to the lucrative nature of the fishing industry, fisheries fleet management has become an increasingly important part of EEZ management.

Vessel Monitoring Systems are able to provide positioning information and analysis facilities for fishing vessels that are equipped with a suitable communicator. The Thales system is based on flexible system design architecture that enables its implementation to be tailored to each user's specific needs.

On-board transponders provide appropriate information at the right time. This automated position reporting allows the skipper to commit to licensed fishing activity without the need to notify the authorities of his position. Event such as entering or leaving a zone; entering or leaving a port; change in course; or travelling at speeds consistent with fishing, will trigger the transponder to send a report.

Positional information is updated immediately a new vessel position is received and then recorded within the database. This allows a plot history to be viewed showing a static picture of selected vessels over an extended period of time.

Vessels operating legally within the South African EEZ will be required by legislation to have a transponder on board, which will provide a report to the service centre based on predefined events. However, even if the vessel is not equipped to provide event based reporting, the surveillance centre can still detect alarm conditions by analysing the succession of position reports from the vessel and extrapolating its position over time.

Presently monitoring over 100 vessels, MCM will eventually be tracking the positions of over 500 vessels fishing within South Africa's EEZ.