NAVAL FORCES

Datalink system helps Royal Navy police Middle East waters

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UK Royal Navy (RN) Type 23 frigates patrolling waters in the Middle East are employing a new secure voice, data and positional information system to enhance the ability of boarding parties to intercept vessels suspected of being involved in terrorist and smuggling activity.

Called Xeres, the communications and data system provides network links between the ships, Sea Boats and boarding parties. This allows Sea Boats to be tracked in real time and intelligence data to be passed back electronically to their mother ship.

UK company Drumgrange developed the system, which is packaged together around Harris secure ultra-high-frequency (UHF) radios and involves three distinct elements, to meet an Urgent Operational Requirement. On the bridges of equipped frigates there is an off-the-shelf stand-alone computer running the SML Safe Navigator software package. This generates a real-time global positioning system (GPS)-based track of the location of the ship's two Pacific Sea Boats. A chat messenger function provides e-mail capability.

This computer receives digital camera and scanner imagery from the boarding party by a line-of-sight datalink. Each sea boat has a Harris radio, an Ocean Computer and joystick set up next to the commander's station. The SML Safe Navigator is loaded on this computer.

The boarding party is provided with a Panasonic Toughbook computer, linked to a digital camera, flatbed scanner and a UHF datalink. Boarding party members can also carry webcams. All the equipment fits in two large suitcases and is operated by a specially trained two-person team.

"Xeres allows us to get instantaneous computer navigation out to 12-15 miles [19-24km]," Cdr Tony Radakin, commanding officer of the Type 23 frigate HMS *Norfolk*, told *JDW*. "The US is very jealous of it because it allows us to send the Sea Boats 15 miles away and the pilot can see vectors to contacts on a screen.

"This is network-centric warfare - a distinct leap forward. The difference now is that we can project the frigate over much longer distances in confidence and in a secure fashion. I can see the Sea Boats' position and they can also see the mother ship's position. Communications are crystal clear - which we never had before. With the webcam, I can sit on my bridge and look into the bridge of another ship."

One of HMS *Norfolk's* boarding officers described Xeres as "very impressive ... It cuts down on paperwork. We don't have to worry about having to take [a] ship's documentation back to *Norfolk* to get it copied," he said. "We can bring back information electronically. You should be able to get feedback on the identity of personnel. It is also good to see if people get edgy if they get their photograph taken."

HMS *Norfolk* and other Royal Navy vessels in the Middle East are also connected to the US-run Coalition Wide Area Network (COWAN), which gives them access to a variety of theatre-wide e-mail and chatroom facilities. The system, which is classed as a 'mission-essential item' by UK vessels operating in the Middle East, is run from a distinct computer positioned close to the principal warfare officer's station in a warship's operations rooms. It uses the ship's existing communications systems as its bearer.

"In [the] past, when a ship entered the Gulf, there was always a mad rush to absorb all the handover information on a single day," said Cdr Radakin. "These days our ships are linked over all the circuits. The [US Navy] commodore [who runs maritime intercept operations in the Middle East] has a Sunday 'same time' chatroom conference, which could be called a 'poor man's video conference'.

"We listened into it as we passed through the Strait of Gibraltar as we were en route to theatre [to get an update on what was happening in theatre]. This is a very different type of warfare - very different from linear things of the past - and a step change over the last couple of years. This theatre is a driver for coalition networks. There is now a willingness to accept 'add-on' [systems] even though they don't fit into neat screens in the operations room. For warfare officers the scene is very different from a couple of years ago."

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(Source: Tim Ripley)

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