

## **Safety equipment roundup**

### **Keith Forward reviews the latest developments in maritime safety equipment**

#### **McMurdo's EPIRB**

McMurdo's latest Emergency Position & Incident Reporting Beacon (EPIRB), the G4 406 GPS, can contact search and rescue services within 3 minutes and inform of the exact position of the ship.

It then provides continuous 20-minute updates detailing latitude and longitude which fix position to around 30 metres.

The G4 operates on the new 406.028MHz frequency and contains a built-in 12 channel parallel GPS receiver, meaning there are no external cables or separate GPS that could lead to incompatible or weak connections.

There is a manual version which comes complete with a low-profile bracket with an easy release mechanism which allows the user to carry it off the vessel. Alternatively there is a 406MHz EPIRB casing which automatically activates if the vessel sinks. Another model, the E3 406 EPIRB, includes all the features of the G4 without the GPS. The E3 includes a unique code to notify search and rescue units of the vessel's identification, avoiding false alarms and helping to ensure an appropriate response to the emergency.

In the E3, position is determined using the signals transmitted to the Cospas Sarsat satellite system, which can calculate the EPIRB's position to within a 3 nautical mile area. The 121.5MHz homing frequency then leads search and rescue to the exact location, while a built-in high intensity strobe light acts as a further visual indication. The strobe also provides evidence that the EPIRB is operating properly.

With both versions there is the ability to self-test the unit to check the battery is working correctly without removing the automatic outer casing. Battery changes are required about every five years. The unit can also be re-programmed with a new identification should the vessel's details change, or the G4 or E3 be moved onto another boat.

#### **Unitor's portable gas detector**

Ship supplier Unitor has a new range of portable gas detection instruments designed to eliminate the usual known hazards arising during cargo change and gas freeing operations.

The Oxy-Mate / Toxi-Mate / Gas-Mate range is series of personal, single gas monitors for oxygen, toxic or flammable gases respectively. These are small units developed to provide assurance that it is safe to enter such enclosed spaces where oxygen deficiency or toxic or flammable gases may be present.

They feature audible and visible alarms, a large backlight display, double action off button to prevent accidental activation and a confidence blip to indicate they are fully functional.

The Combi-Mate is another personal unit, with a multi-gas monitor for oxygen, toxic and flammable gases. It features simple one button operation, shockproof internal construction and self-checking software to ensure reliability and a rechargeable battery capable of ensuring 12 hours of operation.

It has a backlight display for gas readings, diagnostics and operating status, and a 30 day countdown warning of calibration due date.

The Tank-Mate is portable multi-gas monitor for flammable hydrocarbons, oxygen and toxic gases in inert backgrounds. It is suitable for tankers with inert gas systems and especially for gas freeing and inerting procedures.

It uses an infrared detection method and measures both per cent volume and per cent levels for tank purging and inert atmosphere monitoring.

The sensor is also suitable for detection of hydrocarbons in air for confined space entry and other safety applications and features a dual range measurement of flammable gas with calibration for methane, propane, butane or ethylene and an electric sampling pump.

Unitor is also active in various support roles for gas detection instruments, providing a full range of calibration gases for testing instruments against certified calibration gases. These are available in ten-litre exchangeable or in one-litre disposable cylinders. Unitor's service centres in Rotterdam, Houston and Singapore also offer a full range of spare sensors and accessories.

### **Martek's LNG gas detector**

The first detector that is able to monitor methane gas levels in gas dangerous spaces has been delivered by Martek Marine, and has already received 3 LNG orders, the company says.

The system is the only certified intrinsically safe methane detector on the market, Martek claims. It uses an infrared detection method.

The system is being installed on four 148,000m<sup>3</sup> Moss type LNG carriers (Hull's 1469 - 1472) being built by Hyundai Heavy Industries for the Shell Nigeria LNG project.

It overcomes many of the shortcomings of previous sequential detection systems that rely on taking samples of gas at periodic intervals outside of the gas storage space.

The new detector has onboard diagnostics that ensure reliable operation and requires calibration about once a year. It can also be cheaper than the previous standard methods as the installation of steel tubing for sampling is generally more expensive than installing electric cabling.

Martek claims this system is safer than other alternatives, as it removes problems with the sample tubing and valves becoming blocked or damaged, and provides virtually continuous sampling, rather than a reading being taken at best about every 30 minutes. It also removes the need to move gas into non gas dangerous spaces, an obvious safety risk.

### **Dolphin Fenders distributed in Norway**

The South Korean manufacturer of the Dolphin fenders, Kum Nam D&F of Pusan, has given NME, its Norwegian affiliate, exclusive rights to market and sell the Dolphin pneumatic and port fenders in most European countries. NME has also been awarded the exclusive right to market and sell the product in Brazil, Canada and USA.

"This is a milestone for Norwegian Maritime Equipment AS", says sales manager Trond Paulsen. "We have co-operated with Kum Nam D&F for some years, and had a breakthrough in 2003 with a considerable increase in sales volumes. To be appointed exclusive distributor for all these countries is a huge challenge for NME."

Kum Nam D&F of South Korea is

one of the world's two leading producers of pneumatic and port fenders, and their products can be found in commercial ports all over the world. The fenders come in many different sizes, with the larger models designed to fender off supertankers and other large ships and fixed or floating offshore installations.

The market for both pneumatic and port fenders is growing. According to Mr. Paulsen there is a tendency that more and more commercial ports all over the world prefer purpose built fenders instead of old tyres, as an improvement in service to their clients.

"We at Norwegian Maritime Equipment, in turn, will strive to be the preferred supplier to our customers, by offering them the best quality fenders on the market", he said.