

TECHNOLOGY NEWS

Kongsberg upgrades S-VDR package

The Maritime Black Box - S (MBB-S), Kongsberg Maritime's S-VDR solution, received several upgrades recently to provide an even more cost effective package to shipowners, claimed Kongsberg.

The size of the black box computer's hard disk was increased to 160 gb standard from 40 gb standard/120 gb optional, which enabled up to 30 days playback time, for the same cost.

Kongsberg said that this move increased the potential of the MBB-S to be used as a training and trending tool, both applications that owners have expressed an interest in.

The company has packaged the MBB-S into one compact marine grade cabinet. Previously, the system was only available as separate rack-mounted units, but following customer feedback, Kongsberg has re-packaged the system at no extra cost.

Additionally, the remote annual survey package, which enable ship's crew to conduct S-VDR surveys in conjunction with Kongsberg has been 'unlocked' and is now available for use on any on board PC. This latest development will ensure more owners can make use of this DnV approved, time and cost saving process. Remote annual survey has been well received by shipowners as it dispenses with the need for an authorised engineer to visit the vessel every year.

Following recent certification of the float free version, the MBB-S is currently the only S-VDR on the market with options for type approved fixed or float free capsules.

"The float free capsule provides benefits in cost, as it is now able to act as the ship's main EPIRB, meaning no initial outlay for a separate beacon and no additional maintenance costs. Initial outlay is also considerably lower than the fixed version," explained Rune Bjørnsen, manager - maritime black box, Kongsberg Maritime. "The float free MBB-S also negates the need for expensive subsea recovery as the powerful GPS engine provides accuracy down to 150 m."

The MBB-S is a cost-effective S-VDR solution designed for vessels built before 1st July 2002 that under IMO regulations are required to retrofit S-VDR equipment. The system is based on Kongsberg's full VDR system (MBB) and provides functionality for training and reporting in addition to its core remit of incident/accident data recording.

Arctic bow loading contracts awarded

Aker Kvaerner has been awarded a contract by Samsung Heavy Industries for the delivery of bow loading systems for three new shuttle tankers able to operate in Arctic conditions. Another contract for delivery of two additional systems has also recently been signed with a Norwegian shipowner. The total value of the two contracts is approximately NOK 50 mill. The equipment will be delivered from Aker Kvaerner's business unit Aker Kvaerner Pusnes based in Arendal, Norway.

The contract with Samsung involves supply of bow offshore loading equipment for three shuttle tankers to be built at the South Korean yard for Sovcomflot.

Flexibility is provided for by a choice of installation packages. Kongsberg engineers can provide turnkey installations or help assist in normal installations.

Alternatively, a fleet agreement provides full S-VDR installation training, enabling client engineers to retrofit their entire fleets.

Sperry gains approval

Meanwhile, Northrop Grumman has been awarded type approval from the German certification authority Bundesamt für Seeschifffahrt & Hydrographie (BSH) for the Sperry Marine VoyageMaster II simplified voyage data recorder (S-VDR).

The BSH type approval certifies that the Sperry Marine S-VDR meets the IMO's carriage requirements and International Electrotechnical Commission (IEC) performance standards for black box recording devices on deepsea ships. Similar to the cockpit recorders on aircraft, the S-VDR provides a permanent record of data and voice communications from the ship's bridge for use in post-accident analysis.

The IMO has adopted new regulations that will require ships of 20,000 gt and upwards constructed before 1st July, 2002, to be fitted with an approved S-VDR by the first scheduled drydocking after 1st July 1, 2006. Ships of 3,000 to 20,000 gt must be fitted at the first scheduled drydocking after 1st July, 2007. Administrations may exempt ships from this requirement if they are to be taken out of service permanently within two years of the implementation date.

"The VoyageMaster S-VDR has been designed to provide a cost-effective and space-saving solution to fulfill the carriage requirements for retrofit on existing vessels, while reducing the time required for installation, configuration and certification of the equipment," said J Nolasco DaCunha, vice president and general manager of Northrop Grumman's Sperry Marine commercial marine group.

Sperry Marine, headquartered in Charlottesville (Va), and with major engineering and support offices in New Malden, UK and Hamburg, Germany, provides smart navigation and ship control solutions for the international marine industry with customer service and support through offices in 16 countries, sales representatives in 47 countries and authorised service depots in more than 250 locations worldwide.

Leif Haukom, President of Aker Kvaerner Pusnes, said: "The award of the contract with Samsung confirms the growing need for this new type of inboard bow loading system as more oil and gas fields are developed in Arctic areas. This type of equipment was first delivered in 2005 to Hyundai Heavy Industries' five shuttle tankers for ExxonMobil's Sakhalin project in northeastern Russia".

In contrast to the more traditional bow loading systems, this system involves offshore loading where the 20 inch hose connection point is located well within the deck area of the shuttle tanker. Traditional shuttle tankers have an external connec-

Data collection in gaseous environments

Systems integration concern Datatrac has developed an intrinsically safe (IS) e-Tag Reader and system application for use in the oil and gas industry, as well as other sectors where gaseous atmospheres are encountered.

Datatrac has received certification for the IS e-Tag Reader from Sira Certification Service to be used in Zone Zero gaseous atmospheres where there is more than 1,000 hours of continuous gas per year. Zone Zero is the highest possible rating from Sira.

The IS e-Tag Reader is the DI 225 built for Datatrac by Diagnostic Instruments. It is capable of reading the Oxley e-tag wherever it is necessary to do so, making it ideally suited for operations on oil rigs, in tankers, or in support operations where there is a gaseous environment.

According to Datatrac's director Jennefer Tobin, the driving force behind the development of the IS Reader was to create an option to serve the needs of the oil and gas industry and any vessels transporting volatile cargoes, including gas carriers, tankers and chemical carriers.

"The operating requirement in parts of these vessels is such that if they are to have the benefit of electronic tagging throughout then IS equipment is necessary," she explained.

Tobin believed there is a need for such an IS reader because the combination of the PDA with a Contact Memory tag reader rated at Zone Zero does not currently exist.

"The e-Tag is a high memory capacity tag capable of carrying a considerable volume of data. For example, origination certificates, maintenance records, usage records and others can be stored on the tag. Touching the tag will bring this data into the reader. For semi-mobile equipment, for example breathing apparatus and lifting gear, the system provides instant information on the status of the equipment and its availability for use. Hitherto this has not been possible in an IS atmosphere," Tobin said.

The DI 225 has a Windows CE based operating system and is a rugged PDA fitted with the e-Tag reader. Both this and the Datatrac non-IS Reader read the same e-Tags, which means that exactly the same

tion point and coupler, protruding from the bow of the shuttle tanker during loading. A dedicated mooring system is included as part of the total equipment package for securing the shuttle tanker to the offloading facility.

The second contract involves two traditional Pusnes bow loading systems to be installed on shuttle tankers to be operated off the coast of Brazil. Pusnes has already delivered more than 70 such systems globally.

Integrated safety features play a high role in equipment of this type. These fea-

tagging technology can be used throughout the installation or vessel, working to the same software data system.

Tobin said: "There are benefits to having a single system in that there is nothing to learn both within the data system of maintenance and asset tracking and operationally the same kit is used."

Among other benefits for potential users is that a single planned maintenance data collection system can be used throughout, both in the IS and non-IS compartments.

"The real advantage here," commented Tobin, "is that there is no need to change from a useful technology back to paper and then typing. All data are generated digitally and handled once only. Producing a time sheet on the deck of gas

carriers, tanker and rigs becomes technically possible."

The Oxley e-tag is available in both an inert version and in a sensing tag version. This means that data point recognition can be provided for gas sampling; tracking equipment on deck, and also passive data

collection in the sensing tag for temperature changes and vibration data collection.

It is claimed to be ideal for asset management and integrated logistics support (ILS) applications where guaranteed access to information about individual pieces of equipment is important to the efficient and cost-effective management of equipment programmes. Equipment assets fitted with e-tag ensure that critical information is always available wherever the asset itself is available, regardless of geographical location and regardless of access to host IT systems.

In addition the software that Datatrac has developed has moved forward to the stage where the whole process is automated. This means that data collected on deck in an LNG carrier or on a rig, for instance, can download directly into the reporting sheet.

The new IS e-Tag Reader extends Datatrac's capacity to provide full coverage for data collection on board. The particular benefit to FPSO's for example is that the maintenance and asset management data recording is available all in one system. The capacity to do this data collection in the IS atmosphere removes the need for writing and then typing.

tures include; fail-safe brakes, interlock systems, stored energy system, load monitoring, intelligent sensors, and emergency release system to allow a quick disconnect.

While the design and technology is developed by Aker Kvaerner Pusnes, all the equipment will be manufactured by subcontractors in Europe and South Korea. Delivery of the equipment for the three shuttle tankers at Samsung will take place between January and December 2007. The two systems for use offshore Brazil are to be delivered at the end of 2006.



Datatrac's DI 225-IS