

Stratos deploys enhanced data reporting for LRIT

Stratos is upgrading its land earth stations to handle enhanced data reporting standards in advance of LRIT going operational in the New Year

Designed to increase the efficiency of maritime data reporting, the Enhanced Pre-Assigned Data Reporting (EPADR) standard provides vessels with a more reliable mechanism for sending position reports. Stratos Global Corporation is busy working to upgrade its land earth stations (LES) to be compatible with EPADR before 1 January 2009, when ships will be legally obliged to transmit Long Range Identification and Tracking (LRIT) data.

Stratos product manager for Inmarsat-C safety and security services, Paul Downey, says that reliability of communications is vital if LRIT is to meet expectations. "It will result in an enormous number of position data reports being sent via satellite – over 45,000 Solas vessels are required to report four times daily. Our estimates show that more than 100,000 position data reports daily, or over 49 million position data reports annually, will be generated. Each of these must be delivered on time, without interruption, and without data loss," he explains.

Recently implemented as part of Stratos' Inmarsat-C network, EPADR offers improved reliability and security, plus the practical use of pre-assigned reporting. Unlike standard- or enhanced data reporting, pre-assigned (or reserved) access terminals are given precise instructions and time-slots to send their information to the LES. The LES in turn knows exactly from which terminal to expect a report at a given time – implying that the LES also knows when a report has been missed.

This is in contrast to the unreserved data reporting approach, in which a terminal sends a report at a time-slot that it hopes the LES is able to receive. Although Stratos works closely with Inmarsat to

maintain a quality of service, this means there is a small possibility that position reports may clash over the satellite link or otherwise get lost. By employing a pre-defined schedule, EPADR virtually eliminates that risk.

In addition to EPADR, Stratos is drawing on its long experience of vessel tracking and provision of Inmarsat-C communication services, as well as partnerships with leading LRIT application service providers.

While LRIT information can be delivered using other systems, such as AIS or Iridium, Stratos states that IMO's preferred system is Inmarsat-C, a viewpoint which is understandable from the perspective that the majority of Solas vessels required to comply with LRIT regulations already have an Inmarsat-C terminal on board.

It is also good news for Stratos, which, according to its own figures, currently serves over 40 per cent of all Inmarsat-C traffic worldwide and offers a wide range of value-added services based on providing ship managers with optimal communications performance, management control and cost efficiency.

However, the expected volume of traffic, along with the required reliability and security of this traffic, would pose a big challenge to the Inmarsat-C network if it were processed as Standard- or even Enhanced Data Reporting. In other words, without EPADR, Stratos says

it unlikely to have been able to support the large increase in traffic, nor ensure a quality of service around the delivery of reports. Nonetheless, Stratos acknowledges that some LES operators will not be ready to support EPADR before the January deadline.

Long before LRIT arrived on the agenda, Stratos has considerable experience of maritime position reporting systems. For general data reporting and polling (DR&P), it assists leading vessel monitoring application providers globally in sending and receiving daily reports of thousands of fishing, cargo, and other vessel types.

Furthermore, it has developed new and improved services to support vessel monitoring and tracking, to suit the needs of ship managers. Specifically, these include Multi-Ocean Region Polling (MORP), On-line DNID Management, Multi-Destination DNID Delivery, and StratosOceanView.

Stratos claims that MORP is a significant step forward in the efficient management of data reporting and polling services, such as vessel position reporting. It allows ship managers to download a Data Network Identifier (DNID) to one or all four Inmarsat ocean regions, regardless of where the vessel is currently operating. This facility, Stratos states, is particularly beneficial to LRIT application service providers.

Meanwhile, the DNID Management Tool – accessed through the StratosGateway portal – allows users to download and configure their own DNIIDs. When the terminal becomes available in a pending download region (ie, logs into a new ocean region) the DNID Management Tool automatically detects this change of state and performs the download. DNID downloads are therefore available globally, across all four Inmarsat ocean regions.

With Multi-Destination DNID Delivery, Stratos also has the ability to deliver position reports to up to five separate terrestrial destinations. Copies of position reports are charged only for landline and as such, copies sent to e-mail addresses are free of charge. MEC



Upgrades to land earth stations will lead to more reliable LRIT data