

Best Fleet forward

Inmarsat continues to market its Fleet satellite communications service and asserts that tanker operators stand to benefit from the capabilities that it provides

Inmarsat Fleet F77 provides global voice, data and fax communications and was introduced to the commercial marketplace in April 2002. Since then Inmarsat has introduced Fleet F33 and F55, due to be launched early this year. Fleet F33 and F55 terminals are smaller, lighter and cheaper but have less functionality than the F77. Inmarsat recommends that tanker operators "take advantage of the extra level of functionality that F77 provides." In particular, with the tanker sector historically being one of the biggest users of data, the global data coverage offered by Fleet F77 is a significant advantage. Fleet F33 and F55 offer global voice coverage (although polar restrictions apply), but can only provide data communications while under the spot beam coverage.

The Fleet F55 terminal sends and receives data at the same rate as Fleet F77 over ISDN (64 kbps), but only when under the spot beam. The Fleet F33 has 9.6 kbps data service. All Fleet services offer the option of a Mobile Packet Data service (MPDS), although this is not a standard fit on the Fleet F33. The Mobile Packet Data option allows ships to stay "always connected" and pay for the amount of data they send and receive rather than the amount of time they are online, while the ISDN channel is charged by the minute.

It is up to the operator to decide which channel to use, i.e. ISDN or MPDS, although research has produced helpful guidelines, available from Inmarsat, for determining the cheapest and most efficient ways to send and receive data and select channels accordingly. Research suggests that Fleet F77's mobile ISDN is generally better for sending large files infrequently, while MPDS is generally better for sending small files frequently.

One possible use of MPDS is instant chat messaging. Following trials of Fleet F77 on a Maersk container vessel, Torsten Svanholm of Maersk suggested that "MPDS would be particularly suitable if an onboard engineer cannot identify or fix a problem. An online link with the manufacturer, where the engineer could take advantage of instant chat messaging and send diagnostic data together with digital images, could greatly aid fault finding." For example, instant messaging via MPDS could be useful for remote engine monitoring, a key area of interest for tanker operators.

According to Inmarsat, "feedback received from participants in the Fleet F77 trials has suggested that the advanced technology of Fleet F77 is at least as reliable as Inmarsat-B." Given this, the key advantage of the Fleet F77 for tanker operators is its approval for use with the Global Maritime Distress and Safety System (GMDSS). Following the Achille Lauro incident in 1994, in which a maritime rescue co-ordination centre (MRCC) was prevented from contacting shipping in the area due to engaged communications channels, the International Maritime Organisation (IMO) instigated a new resolution for voice prioritisation and pre-emption.

The new resolution was to ensure that during an emergency, parties such as an MRCC can always contact a vessel. Fleet F77 allows appropriate authorities to interrupt a voice or data call to or from a ship, so that a call of higher priority can be made. According to Inmarsat, Fleet F77 is the first and only system to meet the requirements of A.888(21). The company notes that "Fleet 77 does not meet all of the requirements of the GMDSS. To be fully compliant with GMDSS requires more equipment such as walkie-talkies, VHF radio etc."

Manufacturers of Fleet F77 terminals include: Nera, Navarino, KVH, Thrane and Thrane and JRC. The terminals typically cost approximately \$20,000, not including installation. In addition to the terminal itself, a standard Windows-compatible PC is

required, running, Inmarsat suggests, Windows 98 or later. Inmarsat recommends the purchase of a scanner and a standard printer. Airtime costs are ultimately determined by the land earth station operators, with ISDN-to-fixed costing approximately \$9/min and ranging from \$11 to \$20 for mobile-to-mobile, depending on the receiving unit, and MPDS costing approximately \$4.60 per megabit.