

Monitoring propulsion from ashore

Among the various aspects of ship operations that the introduction of Fleet will affect is the remote monitoring of propulsion systems from ashore

Planned maintenance has become a fundamental tenet of ship operations today. Sophisticated software programs such as Xantic's (formerly SpecTec) AMOS aid users in determining what to do and when to do it. In addition to changing the way people at sea use satellite communications, Inmarsat's new Fleet service may also see the introduction of preventative maintenance by making it easier and cheaper for manufacturers of propulsion systems to monitor and maintain the performance of their equipment while in use onboard vessels.

Remote maintenance, or telemetry, is being explored by a number of major propulsion companies. "The main business of a shipowner is transport rather than maintenance of the propulsion system," says Dan Pettersson of the Finnish propulsion company Wärtsilä. "However, maintenance is of course always required. This is where the telemetry and satcoms come into the picture. By connecting a ship's machinery over satellite with the Wärtsilä condition-based maintenance [CBM] center, the condition of the propulsion machinery can be evaluated. Based on the evaluation of a CBM report is made and from this maintenance planning is done." Wärtsilä points out that it is "easier to move bits than boots", i.e. that moving information is easier and more effective than moving the experts to the site itself. The technology does not, however, obviate the need for a chief engineer. Day-to-day monitoring and on-site expertise will always be required. Wärtsilä says that its CBM system complements on-board maintenance by taking the longer term economic view of the propulsion system's performance.

Pettersson makes the observation that the one remaining hurdle to overcome before the use of telemetry becomes more widespread is the cost of satellite communications. As a result, he says, "it has to be decided what the minimum amount and frequency of data to be sent are going to be". Based on reference installations, he says, Wärtsilä has come to the conclusion that 200 kB once a day is sufficient for conveying the necessary information. E-mail is currently the preferred means of communication.

It is hoped that this will change when the use of Fleet becomes more widespread. The constant connectivity that it affords, as well as its MPDS facility will make applications such as telemetry easier to take advantage of and more cost-effective.