

# EGNOS FACT SHEET

## 6: ITALIAN NAVY TRIALS FOR EGNOS

The Istituto Idrografico della Marina and ESA trialled EGNOS as a cost-effective alternative to commercial and local area differential services.

The Istituto Idrografico della Marina (IIM) and ESA conducted the first EGNOS maritime trials in Genoa using signals from the EGNOS System Test Bed (ESTB) in February 2000. The IIM is, among other tasks, responsible for hydrographic surveying in the waters under Italian responsibility as well as investigating navigation systems for the Italian Navy. It is interested in EGNOS as a cost-effective alternative to local area differential and commercial services.



MIRTO, Equipped With the EGNOS System

Its ship, MIRTO, was equipped with four different satellite systems: Natural GPS (NGPS), Local Area Differential GPS (LAD), EGNOS, and Long Range Kinematic GPS (LRK).

EGNOS met the requirements for coastal and precision navigation, port entrance and exit operations, and the use of electronic navigation support. It also offers attractive benefits for hydrographic operations.

EGNOS met the hydrographic and maritime requirements during the trials for the following operations:

- Hydrography;
- Coastal and precision navigation;
- Port entrance and exit operations; and
- Use of electronic navigation support (ENC).

EGNOS offers the following attractive benefits for hydrographic operations:

- EGNOS is accurate enough for ordinary hydrographic surveys (i.e. excluding harbours, berthing areas and associated channels with minimum under-keel clearances);
- EGNOS versatility and performance (suitable for Order 1 large scale surveys) means that hydrographers do not need to establish geodetic points on land, thus minimising the logistic support required; and
- The use of geostationary satellites for broadcasting the EGNOS corrections overcomes the range limitations of the VHF or UHF communications links used by many DGPS and LRK systems.

EGNOS demonstrated its suitability for both coastal navigation and coastal approach operations. The availability of EGNOS receivers at similar prices to current GPS receivers will encourage its acceptance as an alternative positioning system in the Mediterranean Sea.