

AUSTRALIAN MARITIME SYSTEMS LIMITED

OVERVIEW

Radar is used extensively by mariners both for position fixing and collision avoidance. AMS's staff have been involved for many years in the design of radar responsive targets that assist the mariner in appropriate areas. Experience in the installation and maintenance of Radar Transponder Beacons is a key skill within the group.

Differential GPS offers the mariner a modern alternative positioning system for intercontinental and coastal navigation. A host of other user applications for DGPS are emerging. AMS has access to personnel skilled and experienced in the design, installation, servicing and maintenance of DGPS systems.

AMS can offer services in information systems including:

- ✦ Automatic Identification System (AIS);
- ✦ Remote Monitoring;
- ✦ Synchronisation of Channel Markers;
- ✦ Tide Gauge Systems; and
- ✦ Ship Reporting Systems.

These systems are of emerging significance to maritime authorities and offer potential for significant enhancement to existing navigation and traffic control networks.

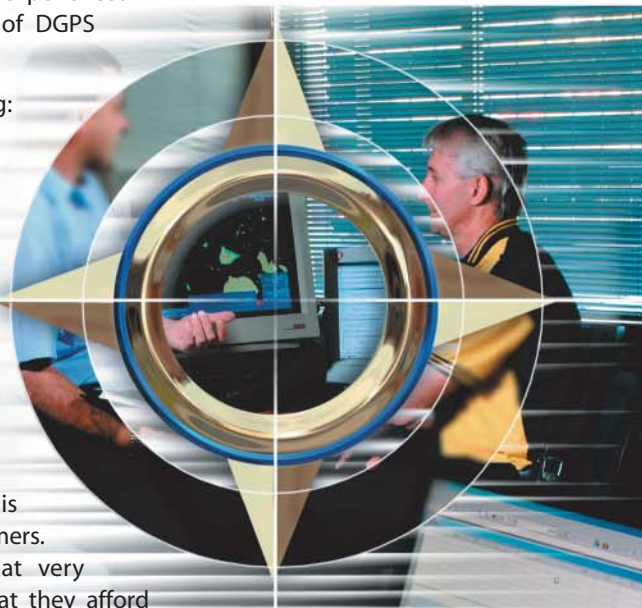
RADAR

Design of low cost/high efficiency radar targets that enhance the value of a navigational aid to the mariner is one of the skills that AMS can exercise for its customers. AMS can deliver superior radar target response at very competitive prices, and maintain radar targets so that they afford mariners the performance they need.

Racons represent a significant investment by an aid to navigation authority, and they offer significant benefits to mariners when correctly located installed and maintained. AMS offers a range of services in relation to transponder beacons including:

- ✦ Site Evaluation;
- ✦ Equipment Selection;
- ✦ Technical Specification & Quality Assurance;
- ✦ Installation;
- ✦ Maintenance;
- ✦ Spare parts support.

AMS is equipped and trained to maintain all of the transponder types currently marketed, and AMS technicians are authorised to perform warranty service on several brands. AMS understands the environmental and installation conditions



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Electronic Aids



DIFFERENTIAL GPS

Differential Global Positioning System (DGPS) is a method of providing differential corrections to a Global Positioning System (GPS) receiver in order to improve the accuracy of the navigation solution. DGPS corrections originate from a reference station at a known location. The receivers in these reference stations can estimate errors in the GPS because, unlike the general population of GPS receivers, they have an accurate knowledge of their position. As a result of applying DGPS corrections, the horizontal accuracy of the system can be improved from 100m (95% of the time) to better than 10m (95% of the time).

More importantly, the reference stations provide integrity monitoring, warning users to disregard a satellite that is operating outside of specification. With DGPS, this warning happens within a few seconds of the satellite becoming 'unhealthy', compared to GPS warnings where some hours can elapse.

AMS has been actively involved in development, installation and maintenance of systems. AMS can provide advice and service covering:

- ✦ *Antenna design;*
- ✦ *System integration;*
- ✦ *Installation;*
- ✦ *Servicing; and*
- ✦ *Maintenance.*

IDENTIFICATION SYSTEMS

Vessel identification is an area of emerging interest in the maritime industry. Applications such as traffic monitoring and harbour control can be enhanced by utilisation of remotely located radar and information systems.

AMS has been actively involved in the development of standards by the International Association of Marine Aids to Navigation and Lighthouse Authorities for Automatic Identification Systems (AIS). Systems are presently under trial in Australian conditions.

This experience can be brought to bear on applications for our customers.

