

### This Edition

The third edition of REEFREP News focuses on the increasing use of the Automated Identification System (AIS) in the region and provides an update on moving to a Coastal VTS

### AIS - Update

Four AIS base stations have been brought 'on-line' in recent weeks. These include:

- The three AMSA base stations left over from the 2000/01 trial, including:
  - Hammond Island (Torres Strait)
  - Mt Yarrabah (Cairns), and
  - Pelorus Island,
- Hay Point - installed by Maritime Safety Queensland (MSQ) to service both REEFREP and Port VTS for Hay Point and Mackay.

After the 2000/01 AIS trials in the REEFREP region, the three base stations deployed were left 'on-line'. However, as these units preceded AIS certification, the equipment soon became obsolete. In particular, the units were not capable of processing AIS data from type approved onboard AIS equipment. These have recently been upgraded to the relevant international standards and are now operational.

Preliminary information from the four operational stations suggests:

- Up to 70% of SOLAS shipping transiting the region has AIS fitted and can be monitored, when in the footprint of a base station.
- Typical maximum detection ranges are 40-50 nautical miles and provides VTSOs with

advanced notice of vessels entering the region.

- Some problems associated with installation and the configuration of AIS units onboard ships are being observed. These are consistent with observations made by other countries. They include incorrect vessel information (due to keying errors on board), incorrect positional data (use of incorrect datum) and poor installation (poor siting of antennas).

To minimise disruptions associated with receiving incorrect information, REEFCENTRE is filtering AIS data and the situation is being monitored closely.

AMSA has recently issued a Marine Notice advising ship operators that Port State Control inspections will verify the correctness and currency of AIS information (see below)

Examples of AIS targets being detected at the four sites are provided in Figures 1,2,3 and 4.

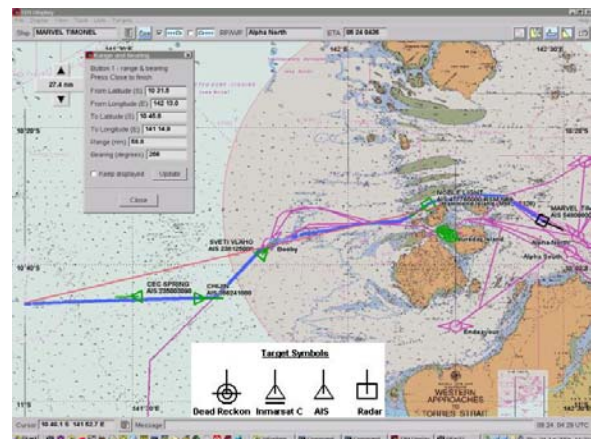


Figure 1. AIS at Hammond Island (Torres Strait)

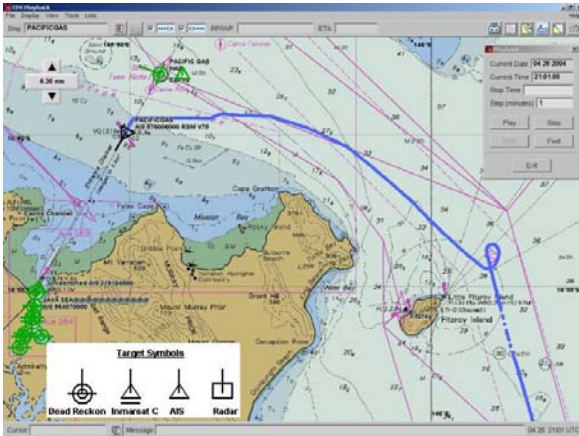


Figure 2. AIS at Mt Yarrabah (Cairns)

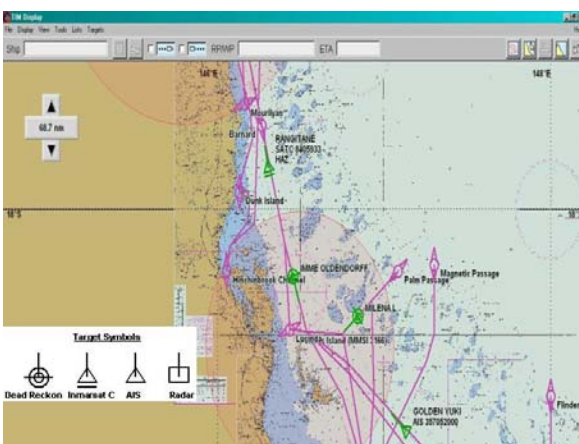


Figure 3. AIS at Pelorus Island



Figure 4. AIS at Hay Point

## Inspection of ship borne AIS in Australia

Marine Notice 06/04 was recently issued to advise ship operators and crew of the focus AMSA surveyors will have on the fitting and operation of ship borne Automatic Identification Systems (AIS) during Port State Control and Flag State inspections of ships in Australian ports from 1 July 2004.

AIS is a valuable tool to enhance the safety of navigation and efficiency of shipping traffic management. However, to fulfill its role the AIS must be correctly fitted, programmed and integrated effectively into the bridge operations of the vessel. Furthermore, navigational watchkeeping personnel must be competent in its use.

In order to facilitate the effective introduction of AIS, AMSA surveyors will inspect this equipment from 1 July 2004. In particular, they will consider the following:

- Establishing if an AIS unit should be fitted on board the ship (the SOLAS implementation schedule for fitting of AIS on board ships is detailed in the AMSA AIS fact sheet located in the shipping section of the publications page on the AMSA website [www.amsa.gov.au](http://www.amsa.gov.au)). If no AIS is fitted and this contravenes the SOLAS requirements, then the ship will not be permitted to sail until this is rectified.
- Verification that the AIS is being kept in operation in accordance with the SOLAS requirements. This requirement is that ships fitted with AIS shall maintain AIS in operation at all times except where international agreements, rules or standards provide for the protection of navigational information.
- Verification that the static and voyage related information programmed into the AIS is current and correct.
- In key ports, AMSA surveyors are equipped with test equipment which can

verify that the AIS is transmitting and receiving correctly.

- In carrying out the above, AMSA surveyors will verify that ships crew are familiar with the operation of the equipment.

Where it is found that the installation or operation of the AIS does not to meet the requirements of SOLAS, appropriate rectification action will be required.

### **Moving to a Coastal VTS**

The International Maritime Organisation's (IMO) Maritime Safety Committee (MSC) adopted amendments to the REEFREP mandatory reporting requirements in May 2004. The changes will take effect on 1 December 2004.

The key changes approved to the mandatory ship reporting requirements include:

<b><u>En Route Position Reports</u></b>	Automated Position Reporting (APR) via Inmarsat C to be the primary means for ships to provide position reports.
<b><u>Route plans:</u></b>	Ships will be required to provide a Route plan, including information such as vessel details, pilot information, route/waypoint information within one hour of entering the REEFREP area.
<b><u>Entry Reports</u></b>	Ships will be required to provide a full REEFREP Position Report (PR) at least two hours prior to entering the REEFREP area from seaward or when sailing from a port within the area.

It is pleasing to note that up to 70% of the traffic transiting the region on a daily basis is now participating in voluntary Automated Position Reporting (APR).

### **Pilotage – Torres Strait**

The last Newsletter provided information on the recent workshop in Cairns where Australia became one of the first countries to utilise

the recently completed IALA Risk Management Tool to evaluate existing and proposed risk mitigation strategies in Torres Strait.

In summary, the workshop concluded that the measures currently being progressed by Australia would improve navigational safety. In particular, it established that:

- Throughout the Torres Strait, compulsory pilotage would reduce the risk of groundings by 45%, and collisions by 57%.
- In areas such as the Prince of Wales Channel, mandatory pilotage would reduce the risk of groundings by 54%, and collisions by 67%.

Since the workshop:

- Australia has submitted an information paper to the IMO Sub-Committee on Safety of Navigation advising of the workshop and it's findings, and
- The International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) also submitted an information paper to the IMO Sub-Committee on Safety of Navigation on the development of a Risk Management Tool.

The IMO Sub-Committee on Safety of Navigation will consider these papers and Australia's submission seeking compulsory pilotage in Torres Strait in July 2004.

### **NAVAIDS - Update**

#### **Torres Strait and Great North East Channel**

New aids have been established at Smith Cay, Sugar-Ran Reef, and Newman Reef in the Great North East Channel. Completion was delayed by two months due to breakdowns and bad weather. Some work remains to be completed at Smith Cay, to activate the light. This work should be completed by the end of the year.

Construction of the base structure for the Nardana Patches tide gauge, current meter

and sector light is complete and the full structure should be in place in July.

### **Fairway Channel (Lads Passage)**

Fairway Channel is a new route within the Great Barrier Reef that spans 90 nautical miles between Princess Charlotte Bay and Cape Direction. Marking of the new route offers a navigationally safer and shorter route than currently exists.

Seven of the nine fixed structures planned for Fairway Channel have been completed and these are at Sunk Reef, Frederick Patches, Robin Reef, Diamond Reign Reefs, Colclough Reef, First Three Mile Opening and Thirteen South Rock. The two remaining fixed structures at the southern end of the Passage are to be completed during the next suitable weather window in late-2004 to early-2005.

### **REEFREP Statistics**

Preliminary ship traffic through the region for the 2003/04 financial year is provided below.

<b>Ship Traffic Statistics - 2003/04</b>		
<b>Month</b>	<b>No. Ships</b>	<b>No. Ship Movements (Voyages)</b>
Jul	368	663
Aug	361	658
Sep	362	653
Oct	384	719
Nov	389	660
Dec	332	568
Jan	363	620
Feb	338	562
Mar	345	619
Apr	370	652
May	379	669
Jun	342	579

### **SPILLCON**

Spillcon is the Asia Pacific region's premier oil spill conference and is being held in Brisbane 23-27 August 2004. This year's theme "*Partnership in Practice*" highlights the various levels of partnership within the National Plan to Combat Pollution of the Sea by Noxious and Hazardous Substances.

A separate one-day Response Issues Seminar will be held at the conclusion of the Conference. The conference will also be accompanied by an exhibition of response equipment and service suppliers, together with a display of oil spill response equipment on the Brisbane River

Key topics covered by the conference include:

- Cause and Prevention
- Preparedness
- Response Management
- Post Spill Issues of Recent Incidents
- Case Studies
- Public Perception

A live demonstration of REEFREP will be available in the Exhibition Hall associated with the Conference.

For more information visit their website - <http://www.spillcon.com/>

### **Contact Details**

Neil Trainor  
Manger REEFREP  
Ph: 07 3120 7422 / 0408 559 849  
Email: [neil.trainor@amsa.gov.au](mailto:neil.trainor@amsa.gov.au)

Kerrie Abercrombie  
REEFREP Project Officer  
Ph: 07 3120 7416 / 0438 451 612  
Email: [kerrie.abercrombie@amsa.gov.au](mailto:kerrie.abercrombie@amsa.gov.au)

*Note - For copies of past editions of the REEFREP Newsletter please contact Kerrie Abercrombie*