Minister Dempsey today announced the completion of the installation and commissioning of the Irish Coast Guards Automatic Information System (AIS) and encourages small leisure boat users and small fishing vessels to install AIS and other safety equipment onboard their craft.

AIS enables vessels and Coast Guard shore stations to transmit and receive information regarding identity, position, course and speed of vessels. AIS transmissions and information is broadcast over VHF radio by Irish Coast Guard Operations, via one of sixteen AIS base stations located around the coast and is freely available to those with AIS equipment. AIS is compulsorily carried by commercial vessels of more than 300 gross tonnes but can be used by small craft as an additional safety feature. The Coast Guard will be installing AIS on all their search and rescue helicopters and rescue boats.

Small craft fitted with AIS will therefore be electronically visible to commercial traffic in poor visibility. The boats current position and historical track will also be visible as a live picture in the Coast Guards rescue Coordination Centres in Dublin, Malin and Valentia. The Minister stressed that these screens are not constantly monitored and a vessels AIS signature can go off the screen for a large number of reasons including going out of VHF range or turning off the AIS box. To ensure an alarm is raised all boats should carry marine radios and where possible EPIRB’s. However if an alarm is raised as to the whereabouts of a vessel the AIS system can be queried to look for the missing or overdue boat and draw a picture on the electronic chart of where it was last visible to the system and what track it had followed over the preceding hours. The Coast Guard considers that this will greatly improve their ability to find missing and overdue boats fitted with AIS once the 999 call is received.

Minister Dempsey also announced that the Coast Guard would be signing a liaison agreement with the Commissioner of Irish Lights (CIL) tomorrow Wednesday 26th March 2008 in the CIL Headquarters in Dun Laoghaire. The agreement will cover a range of subjects between the two bodies including the use by Coast Guard helicopters of refuelling facilities at CIL Helipads in Castletownbere and Blacksod, provision of mutual support services, combined training programmes and the availability of the CIL vessel the *ILV Granuaile* to the Coast Guard for search and rescue, salvage operations and pollution response. A separate part of the agreement will deal with ‘Aids to navigation’ (AtoN) (such as navigation buoys) which can be fitted with AIS transponders. The monitoring of the accuracy of positioning and other data will be verified by CIL through the Coast Guard AIS system.

The Coast Guard will complete the connection of the national AIS system to the European server later this year to complete our picture around the entire island of Ireland, the UK and North West Europe.

And finally the Minister advised all small craft users to fit float free EPIRB’s to their boats and fishing vessels and where possible to fit Navtex receivers and Search and Rescue Transponders (SART’s). An EPIRB provides the simplest means of providing
one way to alert the Coast Guard should a boat sink or be in difficulty. When the 406MHz EPIRB is correctly installed in a bracket which is provided with a hydrostatic release mechanism, it will detach itself automatically, if the vessel sinks, float-free and transmit a distress signal via the satellite system (which calculates the position of the EPIRB) and relays the information to the nearest Coast Guard Rescue Co-ordination Centre.

EPIRB registration details will provide the Irish Coast Guard with the information needed to coordinate a rescue. Most 406MHz EPIRB's also transmit a signal on 121.5MHz which enables search and rescue vessels (i.e. RNLI Lifeboats, Search and Rescue Helicopters etc) to obtain a radio bearing of the EPIRB.

This message compliments the overall safety message issued by the Coast Guard and the Marine Safety Working Group which is:

- "Keep in touch"
- Plan your trip carefully and never go out alone
- Let someone ashore know where you are going and when you will be back.
- Carry a means of communication and for raising the alarm should you get in difficulty
Notes to Editors:
EC Directive 2002/59 mandated all EU states to establish Automatic Identification Systems (AIS) around their national coastlines. During 2007 the Irish Coast Guard commissioned a system covering the Irish Coastline. This system receives ship name, position, course, speed and other qualified static and dynamic information automatically broadcast from suitability equipped vessels. The data received is used by the Coast Guard to aid Search and Rescue (SAR).

The National AIS was supplied by a Danish company Gatehouse. The system itself was specified, installed and commissioned by Irish Coast Guard engineers, without the use of external consultants.

The AIS has a powerful statistical tool which can be used to:
- Monitor the types and numbers of vessels in Irish waters.
- The most frequent origin and destinations of these vessels.
- Plot on a map of Ireland, the main shipping routes through Irish waters.

Purpose of AIS
AIS enhances the:

- safety of life at sea
- safety and efficiency of navigation
- protection of the marine environment
- identification of vessels
- reduction of verbal radio traffic
- Provision of additional information during search and rescue incidents.
- Identification of high risk targets for maritime security

Types of AIS transponders

For vessels:
Class A for carriage by vessels which are mandated to fit and use AIS.

Class B for other marine craft that wish to take advantage of the AIS system such as mentioned in the Ministers statement.

For aircraft:
Airborne transponders may only be fitted to search and rescue aircraft.

Examples of the uses of AIS that have already been encountered by the Coast Guard in 2008.

Case 1: Bad weather
During the recent bad weather the Coast Guard closely monitored the activity of what is considered high risk traffic. In one incident a vessel was noted to be stopped for a long period of time. When queried it was discovered that the vessel had temporarily broken down and the Coast Guard were in a position to monitor the situation. If required AIS can be programmed to automatically alarm as vessels identified as high
risk approach our coast allowing the Coast Guard to either monitor or require the vessel stay away from our coast.

**Case 2: Minor Oil Spill**  
Satellite surveillance noted a minor oil slick off our west coast in February. Using AIS the Coast Guard was able to identify two commercial vessels that passed through the area and arrange for an inspection at their next port of call.

**Case 3:**  
A large cargo vessel broke down and drifted towards our west coast in February posing an environmental risk. Using AIS the Coast Guard was able to monitor the drift of the vessel towards our coast minute by minute and calculate how long they had to get tugs in place to secure the cargo vessel. Throughout the operation the progress of the cargo vessel, the tug used to tow the vessel and the accompanying naval vessel L.E. Eithne and ILV Granuaile (back up tug) live from the Coast Guard Coordination Centre.

**Case 4**  
Coast Guard used the statistical analysis tool to develop a plot of oil tanker traffic around the Irish coast over a 6 month period to better indicate high risk areas.

**Case 5: Dismasted yacht in the UK**  
Time 0100, weather south westerly force 7, gusting 8.  
A dismasted yacht, unable to start its own engine, drifting in a busy shipping channel. UK Coastguard plotted the casualty’s position on AIS display and advised a supertanker which was five miles away that the vessel is close to the tanker’s predicted course. AIS then used to monitor a search and rescue unit proceeding to assist the yacht and then towing it to a safe haven.

**Definitions:**

**EPIRB’s**  
The most common EPIRB system is operated on 406MHz by the COSPAS/SARSAT organisation which uses polar orbiting satellites.

**SART's**  
SART’s provide a homing signal by transmitting a coded response to a radar signal. These signals are displayed on the rescue vessel’s radar screen.

**NAVTEX**  
Mariners at sea can be made aware of search and rescue information, navigation warnings, weather forecasts etc. In coastal waters, this service is provided by the NAVTEX system which transmits this information on Medium Frequencies from Coast Guard Coordination Centres. Navtex receivers display this information either on screen or on a paper printout.
Picture example 20\textsuperscript{th} March 2008 at 1300