



## CHIEF EXECUTIVE OFFICER

Dr Kathleen Dermody  
Committee Secretary  
Senate Foreign Affairs, Defence and Trade References Committee  
PO Box 6100  
Parliament House  
CANBERRA ACT 2600

Dear Dr Dermody

As discussed with Leanne Kennedy from your office, the Australian Maritime Safety Authority is pleased to provide a revised submission to the Committee of Inquiry into matters relating to the Torres Strait region.

The submission provides an update of the status of developments relating to our activities in the Torres Strait including the Under Keel management system, coastal pilotage and the appointment of Community Liaison Officer based in the region.

Please contact Mr James Aston, A/Manager Government and International Coordination (02 6279 5747 or [james.aston@amsa.gov.au](mailto:james.aston@amsa.gov.au)) directly in relation to this matter.

Yours sincerely

MICK KINLEY  
Acting Chief Executive Officer

21 June 2010

Encl. (1)

**Submission by the Australian Maritime Safety Authority  
to the Inquiry into Matters Relating to the Torres Strait Region  
Senate Foreign Affairs, Defence and Trade References Committee**

**Introduction**

This submission outlines the activities of the Australian Maritime Safety Authority (AMSA) in the Papua New Guinea/Torres Strait Treaty Zone. AMSA has particular interests in the challenges facing the Torres Strait region in relation to sea transport linkages referred to in part (d) of the Terms of Reference for the Senate Committee of Inquiry into Matters relating to the Torres Strait region.

AMSA is the national safety agency with a primary role in maritime safety, protection of the marine environment, including marine pollution response and emergency towage services, and aviation and maritime search and rescue.

AMSA has had a long involvement in the Torres Strait region and has a strong focus on vessel safety, marine pollution prevention and safety of life. Protection of the region has been enhanced through state of the art aids to navigation and technologies, establishment of an internationally recognised system of compulsory pilotage for ships and provision of education and awareness programs relating to boating safety, including with Papua New Guinea.

**Shipping traffic in the Torres Strait**

The Torres Strait region is used by a wide spectrum of vessels ranging from large tankers and container ships, bulk carriers and cruise ships to modern trawlers, traditional fishing boats and pleasure craft. All but the smallest vessels are confined to a few well-defined routes which, despite being well plied routes, are potentially hazardous to navigation; frequently being very narrow, confined by many charted dangers, depth-limited and strongly influenced by tides and tidal streams often running up to several knots.

The Strait is the primary link between ports in southern Asia, mainland Australia, New Zealand, South America, Papua New Guinea and Pacific Island nations. There are more than 3000 transits of Torres Strait per year by vessels greater than 50 metres in length. Traffic comprises bulk carriers (38%), general cargo (28%), containers (15%) and loaded

tankers (12%). Ships use the Prince of Wales Channel in the central section of the Strait, Varzin and Gannet passages in the western approaches and the Great North East Channel in the East. Ships entering or leaving the inner route of the Great Barrier Reef also use the Prince of Wales Channel.

Ships that are unable to transit the Strait, must pass north of New Guinea or south of Australia resulting in significant diversion times and additional costs. The numbers of ships transiting the Strait is expected to continue to increase over the coming years with the increasing demand for Australian commodities.

### **Initiatives to improve ship safety and marine environmental protection**

To cater for the navigational difficulty of the Strait AMSA maintains a range of major and minor navigation aids, from visual aids such as buoys, beacons and lights, real-time transmission of environmental information such as tidal heights and tidal streams, a Vessel Traffic Service, a radar surveillance and monitoring system and Automatic Identification System (AIS) coverage. Other major ship safety and environmental protection initiatives implemented in the region include:

#### **a) Designation of the Torres Strait as a Particularly Sensitive Sea Area**

Following a number of ship groundings in Torres Strait and the Great Barrier Reef, in 2001 the Ministers for Transport and Regional Services and Environment and Heritage agreed with the recommendation of the *Review of Great Barrier Reef Ship Safety and Pollution Prevention Measures* that Australia should pursue at the International Maritime Organization (IMO) the designation of the Torres Strait as a Particularly Sensitive Sea Area (PSSA). A PSSA is an area of the marine environment that needs special protection through action by the IMO because of its significance for recognised ecological, socio-economic, or scientific attributes where such attributes may be vulnerable to damage by international shipping activities. Following several joint submissions to IMO by Australia and Papua New Guinea, in July 2005, the IMO's Marine Environment Protection Committee approved the extension of the Great Barrier Reef PSSA (declared in 1990) to include the Torres Strait.

**b) Compulsory pilotage for the Torres Strait**

As part of the associated protective measures for the Torres Strait, the IMO also adopted Australia's proposal to designate a revised shipping route and extend the system of pilotage within the Great Barrier Reef to include the Torres Strait. While there was unanimous support

at IMO for protecting the environmental values of the area, there was considerable debate around the sensitive issue of the international legal basis for adopting such measures in international straits used for navigation. Some delegations agreed with the Australian position that international law does not prevent such measures while others argued the opposite, based on concerns about precedent for other straits.

Amendments to the Commonwealth *Navigation Act 1912* entered into force on 6 October 2006 and provide for an offence under section 186I to navigate in a compulsory pilotage area without a pilot. A compulsory pilotage area for the Torres Strait is specified in Marine Orders Part 54 and significant penalties apply to a master or owner who fails to comply with the compulsory pilotage requirements in the Navigation Act and Marine Orders Part 54 – Coastal Pilotage. AMSA is currently revising Marine Orders Part 54 to strengthen procedural regulation and the safety culture of the pilotage industry, mainly through improving the system of safety reporting by pilotage providers..

Section 186J of the Navigation Act requires the pilot to provide a certificate to the master in the approved form specifying details about the completed piloted voyage before disembarking the ship. Such a certificate will provide an owner and master evidence that they engaged a pilotage service and complied with the compulsory pilotage requirements of the Act. In certain circumstances, a master or owner may apply to AMSA to seek an exemption from the requirement to navigate with a pilot in a compulsory pilotage area (section 186K of the Act and provision 11 of Marine Orders Part 54).

**c) Under Keel clearance management (UKCM) system for ships**

The recommended maximum draught for transiting ships is 12.2 metres. Deeper draught ships (greater than about 8 metres) must make use of tidal windows and reduce speed to manage their underkeel clearance. In recent years, ship operators have requested AMSA to re-examine the prevailing draught limitation of 12.2 metres in Torres Strait in certain circumstances (bathymetric and met-ocean conditions permitting). An increase in the maximum permissible draught will offer significant economic benefits and provide the means to obtain a more accurate assessment of the margin of safety.

AMSA has selected, through an open tender process, a UKCM system for use in Torres Strait that is being provided by a Melbourne-based company OMC International. AMSA has decided that the UKCM system will be used for the management of all transits of Torres Strait for ships whose draught is eight metres or greater. The objectives for introducing UKCM are to deliver enhanced safety and efficiency of navigation by validating the existing safety margin for deep draught ships transiting the region; and evaluating the appropriateness of the current draught regime. AMSA envisages the UKCM system will be operational early 2011.

**d) Vessel Traffic Services**

In 2004, as a measure to further enhance navigational safety in Torres Strait and the Great Barrier Reef region, Australia declared that REEFREP (the existing ship reporting system covering this region) had progressed towards providing a service consistent with that of a coastal Vessel Traffic Service (VTS). These enhanced services further improve navigational safety, thereby minimizing the risk of a maritime accident, consequential pollution and major damage to the marine environment from shipping incidents. In particular, REEFVTS' systems provide alerts when a ship is about to deviate from 'electronic corridors' and enter shallow water, thereby allowing the VTS operators to provide a warning to the ship.

Both AMSA and Maritime Safety Queensland provide joint oversight of the operation and administration of REEFVTS.

The objectives of ReefVTS are to:

- Enhance navigational safety in Torres Strait and the inner route of the Great Barrier Reef by interacting with shipping to provide improved information on potential traffic conflicts and other navigational information
- Minimise the risk of a maritime accident and consequential ship sourced pollution and damage to the marine environment in the Torres Strait and Great Barrier Reef region
- Provide an ability to respond more quickly in the event of any safety or pollution incident.

Through the integrated use of Automatic Identification System (AIS), Radar, Automated Position Reporting via Inmarsat-C (satellite), VHF reports and detailed route plans provided by ships, ReefVTS compiles a timely and accurate traffic image of shipping throughout the region. ReefVTS generates and disseminates ship

encounter predictions in the form of ship traffic information and provides alerts about a ship that might enter shallow water, allowing the VTS operators to provide a warning to the ship. Ships receive this ship traffic information via Inmarsat-C messaging or VHF voice communications.

**e) National Maritime Emergency Response Arrangements**

In November 2005, as a response to the 2004 *House of Representatives Standing Committee on Transport and Regional Services Inquiry, Ship Salvage Inquiry into Maritime Salvage in Australian Waters* (the Neville Report), the Australian Transport Council endorsed the establishment of an integrated national approach to the provision of Emergency Response arrangements, involving minimum levels of emergency towage capability in strategic regions around the Australian coastline and a regulatory framework to support a coordinated approach to Emergency Response issues. In February 2008, the Australian Transport Council Ministers formalised the agreement of all jurisdictions to the Intergovernmental Agreement (IGA) on the National Maritime Emergency Response Arrangements (NAMERA).

The aim of the National Maritime Emergency Response Arrangement (NAMERA) is to protect the marine environment from actual or potential ship-sourced pollution. This is done by enhancing current response arrangements under the *National Plan to Combat Pollution of the Sea by Oil and other Noxious and Hazardous Substances* (the National Plan) through ensuring the continuing provision of an appropriate level of maritime emergency towage capability around the Australian coastline and the enhancement of the Emergency Response management framework, which includes the appointment of a single national decision maker to coordinate a response to a maritime casualty.

**f) Emergency Towage**

Emergency Towage is taken to be the initial response required to assist a ship that is incapacitated and/or drifting, and is in danger of grounding, sinking or of suffering some other peril of the sea, so as to stabilise the situation and prevent or minimise the extent of consequent pollution of the sea. The ETV program commenced in 2006 to provide a minimum level of emergency towage capability to deal with a significant, or potentially significant, threat to Australia's marine environment. Under the NAMERA, a number of emergency towage vessels (ETVs) are located in strategic Australian coastal regions.

AMSA has contracted the Brisbane firm Australian Maritime Systems Limited, in conjunction with Swire Pacific Offshore, to supply and operate under AMSA's direction a 24/7 dedicated chartered ETV that will provide emergency towage and first response capability in the Torres Strait and Great Barrier Reef area north of Cairns/Mourilyan.

The vessel, named *Pacific Responder*, has its home port in Cairns but spends the majority of its time at sea, available for emergency tasking by AMSA should a maritime incident occur. The *Pacific Responder* is also able to respond to other marine incidents, such as pollution of the sea and search and rescue action.

**g) Pollution response arrangements for the region**

The extremely high cultural, social and economic significance of marine resources to the people of Torres Strait could lead, in the event of an oil or chemical spill, to a significant decline in productivity of their subsistence fisheries until the marine ecosystem recovers. In Torres Strait there is an extremely high rate of water movement due to currents, tidal streams and surface winds. In the event of an oil or chemical spill, this could result in the rapid movement of oil or chemical plumes, possibly to even more remote areas. Logistical problems associated with moving response personnel and equipment to remote areas and the fact that much of Torres Strait is navigationally complex may cause considerable difficulties in mounting an on-water response to an oil or chemical spill.

In recognition of the particular risks associated with Torres Strait, a specific Marine Oil Spill Contingency Plan for the Torres Strait Region (Torresplan) was produced in 1994 to provide both a range of options for a spill response and guidance for the spill combat team, should a spill occur in the area. The Plan was revised in 2001 to reflect policy and operational changes in the management of oil spills in Australia.

*Torresplan* is an integral part of Australia's *National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances*. These linkages are an important aspect of the contingency planning process and are designed to streamline operations at national, state, regional and local level.

With regard to pollution prevention, Annexes I, II, IV and V of the International Convention for the Prevention of Pollution from Ships (MARPOL) include special provisions in the definition of "nearest land" for protecting the north-eastern coast of Australia, encompassing the Torres Strait and the Great Barrier Reef. No operational discharges from ships are permitted in these areas. Significantly tighter discharge regulations apply in these areas.

### **Initiatives to improve safety of small boats**

The local population use small boats to move between settlements and island villages, for fishing and transport of goods. Due to the geographic spread of the islands, voyages of more than 80 nautical miles may be undertaken, including in all kinds of weather. Search and rescue incidents for operators of small boats that travel amongst the island communities have been common in the Torres Strait over the years, representing one of the highest number of search and rescue incident areas in Australia. Of these, up to twenty five percent are for the rescue of Papua New Guinea nationals.

In reaction to more recent incidents, Maritime Safety Queensland (MSQ) and AMSA have sponsored the Torres Strait Marine Safety Project in partnership with the Torres Strait Regional Authority (TSRA) and the Papua New Guinea National Maritime Safety Authority. This project commenced in July 2006 and aims to improve boat safety education and awareness. The project team identified the major causes of boating safety problems in Torres Strait and the need for training in trip planning and emergency procedures; motor maintenance and troubleshooting; and the availability and cost of boat safety equipment, particularly the new 406MHz maritime distress beacon (known as an EPIRB or Emergency Position Indicating Radio Beacon). The objectives are to reduce the number of incidents of lost seafarers in Torres Strait, increase the chances of survival of lost seafarers, increase community and industry commitment to safety and achieve outcomes through partnerships with communities, industry and government agencies.

Key initiatives arising from the project are the boating safety campaign, fuel usage stickers, a small boat census, an EPIRB exchange program, the 'BoatSafe' training course and increased engagement with Papua New Guinea. These initiatives have reduced the incidence of small boat marine incidents by 54 per cent since 2007.

#### **a) Boating safety campaign**

An integrated boating safety campaign has been developed for the region targeting the common barriers and safety issues confronting seafarers. The campaign features:

- television advertising
- local radio advertising



- local press advertising
- a pocket handbook in local languages
- a map and safety sticker to determine fuel requirements for travel between island communities
- provision of safety grab bags comprising life jackets, flares, an EPIRB and other safety equipment
- supply of safety equipment through island stores.



**Adrian Davidson, Community Liaison Officer for the Torres Strait, recently represented AMSA at the Tagai College Career Day**

**b) Fuel usage stickers**

AMSA recently funded the production of a large number of fuel usage guide stickers, 2000 of which were sent to the Papua New Guinea National Maritime Safety Authority and an additional 440 to the Department of Foreign Affairs and Trade Treaty Liaison office on Thursday Island for distribution to the owners and operators of boats that operate from Papua New Guinea out to the islands of the Torres Strait.

**c) Vessel census**

A vessel census has been completed which gathered information on all boats within the Torres Strait and data is being analysed. The census provided information about:

- the numbers of boats in use and not in use
- the overall condition and seaworthiness of boats
- what safety equipment is carried
- boat make and model plus motor size and type.

It is anticipated the census will provide a benchmark and direction for future safety initiatives.

**d) EPIRB exchange program**

Emergency Positioning Indicating Radio Beacons (EPIRBs) are an essential item of safety equipment. An EPIRB exchange program, in conjunction with AMSA, has been in place since 2007. The program offers seafarers a new 406 MHz distress beacon at a nominal cost in exchange for their 121.5 MHz beacon. With the increased use of 406 MHz EPIRBs, the rescues that are required should be responded to more effectively as the new beacons are more accurate than the old and, if properly registered with AMSA, they can provide important collateral information. This program is continuing.

Beacon activation data held by AMSA suggests that the Torres Strait community is more disciplined than their seagoing counterparts in the general Australian community, as the proportion of activations classified as inadvertent or malicious is relatively low.

**e) BoatSafe**

BoatSafe was introduced in August 2007 through a partnership with the local TAFE college. The BoatSafe is a course that promotes marine safety through talks on marine safety equipment and use. It covers:

- motor maintenance
- breakdown prevention
- safety equipment and its use
- emergency procedures at sea
- general boating rules, legislation and licensing.

TAFE deliver courses throughout the island communities and to date all communities have had the opportunity to attend a course which is now on its second round. It is

also being delivered within the high school curriculum for year 10 students. It is anticipated that eventually all community members will have completed the BoatSafe course as they pass through the school system.

**f) PNG engagement**

AMSA has sought agreement from the other three parties in the Torres Strait Marine Safety Project with an interest in marine safety in Torres Strait – Maritime Safety Queensland, Torres Strait Regional Authority and the Papua New Guinea National Maritime Safety Authority – via a 'letter of intent' to develop a Memorandum of Understanding that would reaffirm the goals of the Torres Strait Marine Safety Program. The Memorandum of Understanding will acknowledge the importance of vessel safety and environmental protection in the Torres Strait and provide a platform to build partnerships amongst the key governance bodies in the region to develop and deliver targeted marine safety programs. It would also formalise the role of the Papua New Guinea National Maritime Safety Authority as a full member of the Torres Strait Marine Safety Steering Committee.

**Future challenges**

In terms of small boat safety, challenges remain to improve sea safety awareness, the need for good passage planning, the need to monitor the weather and provide enough fuel to handle conditions if the weather deteriorates with little warning. A number of activities are proposed under the Torres Strait Marine Safety Program to address these issues including examining the establishment of island-based safety officers who can take on a community role of monitoring and promoting safety within the community; continuation of the integrated safety education program and EPIRB exchange program; and continuation of the delivery of BoatSafe courses.

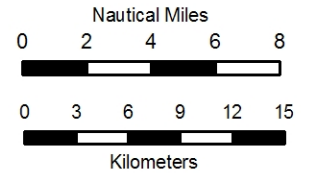
In April, 2010 AMSA appointed a Community Liaison Officer in the Torres Strait. This officer will provide additional support for the Torres Strait Marine Safety Program and work with Maritime Safety Queensland officers already present in the region. A plan of activities is being prepared including: community liaison and Boatsafe work in the Torres Strait islands and northern Cape York areas; school training and liaison; and search and rescue research tasks including reviewing and assessing potential assets and other capabilities, especially in the northern Torres Strait islands. These activities will be phased over coming months taking account of weather and other factors. The work will also involve consultation with Papua New Guinea in an attempt to bring greater coherence to search and rescue planning for Torres Strait.

Additionally, AMSA plans to install three AIS stations in the northern Torres Strait over the next two years specifically to support search and rescue operations and small boat safety there. This would be the first AIS coverage established by AMSA for purposes other than the safety of large trading ships.

In terms of ship safety, the challenges for AMSA in the near future are in implementing the Under Keel Clearance Management system, achieving improvements in coordination of search and rescue and provision and maintenance of aids to navigation and navigational systems to ensure the highest standards of ship safety and environmental protection.

AMSA would be pleased to provide any additional information on the activities described in this submission.

# MAP SHOWING TORRES STRAIT SHIPPING CHANNELS



Map Datum: WGS84  
Coordinate Definition: Geographical  
Map not to be used for navigation purposes.

