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Australian Government Australian Maritime Safety Authority

On Scene

Newsletter for the National Plan for Maritime Environmental Emergencies

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On Scene Newsletter Important Information

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Adelaide Fixed Wing Aerial Dispersant Capability Exercise

On 29 June AMSA's Marine Environment team conducted a joint Fixed Wing Aerial Dispersant Capability Exercise with the South Australian Department of Planning, Transport and Infrastructure (DPTI), the South Australian Country Fire Service (CFS), the Australian Marine Oil Spill Centre (AMOSC) and Aerotech 1st Response south of Adelaide. The aim was to exercise functions of the capability including:

- establishing a functioning operational airbase and crew consistent with the Joint Standard Operating Procedures (JSOPs)
- developing a Fixed Wind Dispersant Operations Plan
- simulating dispersant spraying operations consistent with the JSOPs
- establishing effective offshore operational support.

The South Australian CFS currently maintains a pool of Air Attack Supervisors. The supervisors, who would normally provide top cover for fire-bombing operations, are seen as an ideal source of assistance during any ongoing oil pollution incident where Fixed Wing Aerial Dispersant (FWAD) operations are required. In particular, they assist with direction of dispersant spraying operations by advising aircraft where and when to spray dispersant. They are also able to provide vital information in relation to the effectiveness of the dispersant. An area of water was identified five miles from shore, but within easy reach of Aldinga Airport for safe and quick turnaround of the two Aerotech air tractors. Potential adverse reaction from the public was mitigated by the distance from shore, preventing viewing from the coast, but providing an easy 10-minute flying time from the operations base.

Top cover was provided by a roster of CFS and DPTI Air attack officers aboard an AS 350 Squirrel helicopter, and the oil pollution was given a visible dimension by the deployment of sea marker dye from a DPTI patrol vessel. The weather conditions made for a rough ride for the crew on board the vessel, who also maintained an emergency response capability in the event of an aircraft failure over water.

Approximately 23 personnel were involved in the exercise, which included aircraft loaders and EPA observers.

A hot debrief was conducted at the end of the day, and confirmed that fire service staff are a viable resource for such operations, and that maintenance of FWAD operations skill set is an important part of AMSA's and DPTI's oil pollution response tool kit.

Overall, the exercise was deemed a success with the full establishment of an airbase and the conduct of ten simulated dispersant spraying runs.





AMSA hosts salvage and wreck workshop

From 15-16 June AMSA hosted a salvage and wreck workshop at the Australian National Maritime Museum in Sydney. Approximately 140 delegates attended the workshop, representing Commonwealth and state governments, international maritime regulators, ship owners and operators, cargo owners, ship and cargo insurers, port authorities, the Royal Australian Navy, salvors, towage providers, legal practitioners and consultants.

This was the first time in many years that a group of this nature has gathered to workshop potential issues arising from an incident involving a maritime casualty.

AMSA's Manager for Salvage and Intervention, Prashanth Athipar, outlined the following objectives of the workshop during his welcome speech. In the event of an incident involving a maritime casualty in our waters:

- Are we prepared?
- Are we clear about our roles?
- Does the current model operate effectively and efficiently?
- Are there any gaps in our current model?
- Are we talking to each key player?
- Any lessons to be learnt from stakeholders?



The workshop was formally opened by AMSA's Chief Executive Officer, Mick Kinley, who commented that, although most of the industry behaves well and operates safely and that the incident rate in recent years has been low, we must be prepared for the worst. The workshop commenced with a keynote speech by AMSA's Maritime Emergency Response Commander (MERCOM), Toby Stone, who set the scene in relation to risk mitigation from shipping (as outlined in the National Plan).

The workshop, facilitated by Antony Maxwell from the Australian School of Applied Management, provided an excellent opportunity to network with some of the key industry stakeholders who are likely to be directly involved in a maritime casualty incident.

Other topics discussed during the workshop included:

- the role of Commonwealth, state and NT maritime safety and investigation authorities during a maritime casualty incident
- forecasting large vessel drift
- managing passenger ship casualties
- working with stakeholders during an incident
- dealing with mega ship casualties
- dealing with a place of refuge request received from a maritime casualty
- salvage contracts and the Nairobi Wreck Removal Convention
- intervention powers under Commonwealth and state/NT legislations.

The workshop was deemed a great success based on the positive feedback received from delegates.



Torres Strait marine debris education program

From 17-19 August AMSA and the Tangaroa Blue Foundation delivered a marine debris education program to school students on Thursday Island.

The program aimed to raise awareness of the issue of marine debris and the associated impacts and to provide students with a better understanding of the work AMSA and Tangaroa Blue do in preventing and managing marine debris in Australian waters. The program explained how MARPOL* Annex V (Garbage) applies to vessels of all sizes and educated the island's next generation on the actions they can take to reduce and prevent marine debris and its effects on the marine environment.

The program was extremely well received by the students and teachers who were surprised to learn the extent of the marine debris problem and that the entanglement



Year 12 students from Tagai State College along with Heidi Taylor (Tangaroa Blue), Matt Gregg (AMSA), David McIlwain (TAFE International Marine College), Anthony Drummond (Torres Strait Regional Authority Land and Sea Rangers)

and ingestion hazards marine debris creates can be just as deadly to our marine life as oil or chemicals.

Younger students from the Our Lady of the Sacred Heart Primary School were taken to the beach for a clean-up activity, which gave an insight into the main types of marine debris in the area and the sources (onshore and offshore), how and why the debris is sorted in order to collect data, and how this data can be used to help address the problem.

Senior students from Tagai State College were given more detailed information on AMSA's role in the prevention of pollution from vessels, the technical requirements of MARPOL Annex V, and how to report suspected illegal garbage discharges at sea. This information was of particular relevance to the TAFE students who are currently working towards the qualifications required to move into the maritime industry.

Tangaroa Blue is an Australian non-for-profit organisation which coordinates the Australian Marine Debris Initiative. The visit to Thursday Island was the first community education activity AMSA has undertaken in partnership with Tangaroa Blue since our longstanding working relationship was formalised through a memorandum of understanding in May this year.



Beach clean-up activity with year 5/6 students from the Our Lady of the Sacred Heart Primary School

For further information on the Tangaroa Blue Foundation you can visit their website.

* International Convention for the Prevention of Pollution from Ships

Exercise Nautical Twilight

The National Plan for Maritime Environmental Emergencies (National Plan) is exercised on an annual basis. The exercise is a key component of the National Plan capability and is useful in allowing National Plan partners the opportunity to train, practice, and reinforce their skills, training and application of procedures in a safe working environment.

The exercise is hosted in turn by each jurisdiction, with the 2016 National Plan exercise being hosted by New South Wales. The exercise was held in two phases. Phase one, conducted on 7 June, dealt with a chemical incident occurring on board a container vessel at sea and a subsequent request from the vessel's master for a place of refuge in the Port of Newcastle.

The aim of phase one was to practice the deployment of the newly-developed Hazardous and Noxious Substance (HNS) response capability and the application of National Maritime Places of Refuge Risk Assessment Guidance. This phase was held in the Port of Newcastle with AMSA, Port of Newcastle, Transport for New South Wales and Fire & Rescue New South Wales (FRNSW) personnel forming a Maritime Casualty Control Unit to manage the potential maritime casualty and to assess an appropriate place of refuge.

The second phase of the exercise was held on 10 August and considered the community impacts and cost recovery implications of a chemical incident in the Port of Newcastle.



On 6 September the AMSA/FRNSW Hazardous and Noxious Substance Reconnaissance Team (HRT) conducted an operational exercise in Port Macquarie.

This operational phase of Exercise Nautical Twilight was a real-time test of the HRT capability, involving the deployment of a reconnaissance team to a vessel at sea. The HRT was developed to assist vessels experiencing a chemical incident at-sea.

The exercise was conducted on board the MV Island Trader, which operates a freight service between Port Macquarie and Lord Howe Island. AMSA's Mick Fleming sailed on the Trader from Lord Howe and managed exercise control from on board the vessel.

AMSA's David Imhoff oversaw the HRT operations from Port Macquarie and on board a command vessel. The HRT was transported to the Island Trader by NSW Water Police, who provided a Rigid Hulled Inflatable Boat (RHIB) and a command vessel.



Port Macquarie Volunteer Marine Rescue (VMR) transported observers and acted in a safety vessel capacity.

Richard Fleck (AMSA), who carried out the role of Maritime Casualty Officer, boarded the Island Trader along with four FRNSW Hazardous Material (HAZMAT) qualified firefighters. The HAZMAT team undertook an investigation and successfully identified the suspect container below decks and the chemical leaking from it. This information was relayed to the MERCOM by Richard, to assist in decision-making on the place of refuge request.

This was the first test of the HRT capability after three years of design, development and training. The exercise demonstrated a valuable example of integrated operations with participating agencies.

AMSA would like to extend a special thanks to the master and crew of the Island Trader, Port Macquarie VMR, NSW Water Police and FRNSW.

An exercise report covering the entirety of the exercise will be published on the AMSA website in the coming months.









ETV Coral Knight conducts exercises in North Queensland

From 28-29 May AMSA coordinated emergency towage, medical evacuation, and search and rescue exercises on board our emergency towage vessel (ETV) Coral Knight.

The Coral Knight deployed approximately 450 metres of her main emergency towing wire, towing pendants and Dyneema messenger rope in the seas of Cape Upstart, to connect to the simulated dead casualty vessel MV RTM Wakmatha.

The medical evacuation exercise was carried out on board the Coral Knight, four nautical miles south of Little Fitzroy Island, with the assistance of a Queensland Government air rescue team—using rescue helicopter Rescue 510, an air rescue stretcher, and a dummy. The air rescue team landed on the vessel and briefed the ship's crew about patient handling techniques and safety precautions during helicopter operations. As part of the exercise, AMSA Search and Rescue tasked the Coral Knight to conduct a search for a single-person yacht, which had activated its distress beacon approximately five nautical miles north-east of Little Fitzroy Island. The rescue helicopter dropped a floating beacon at the distress position to simulate the distressed yacht. The exercise was completed after recovering the floating device by the fast rescue boat crew.

Throughout the exercises, the Coral Knight followed the emergency communication protocols by involving AMSA Search and Rescue, Townsville Vessel Traffic Service, as well as alerting nearby shipping and displaying the appropriate navigation signals.







Spillcon 2016

The Asia-Pacific oil spill preparedness and response conference, Spillcon, was held from 2-6 May 2016 in Perth, Australia. Spillcon 2016 brought together local, regional and global environmental and shipping representatives from across industry, government and non-government organisations to provide a forum for discussion on topics such as oil spill cause and prevention, preparedness, response management, and environmental issues.

Some 370 participants from 29 countries attended the conference. The conference provided the opportunity for participants to attend a range of sessions, exhibitions and functions over the five-day event. A total of 53 exhibition stands were occupied by 32 companies.

The conference program was made up of 12 sessions, which focused on oil spill prevention, preparedness and response, and recovery. The final day of the conference program included two master classes on 'Behavioural change through social media' and 'Science and innovation in oil spill response'. Three keynote speakers opened the days' proceedings as part of the conference program. Day one saw Ms Juliette Kayyem, President Barack Obama's former Assistant Secretary for Intergovernmental Affairs at the Department of Homeland Security, describe her role in the management of the BP Deepwater Horizon oil spill response in 2010. Day two welcomed Air Chief Marshal Sir Angus Houston AK, AFC (Retd) who spoke about his experiences leading the response to a range of incidents, including recovering Australians killed in the Malaysia Airlines MH17 crash, and heading up the Joint Agency Coordination Centre for the missing aircraft, MH370. Day three saw Mr Trefor Munn-Venn, an international social media expert, speak about the importance of two-way communication during public incidents.

A highlight of the week was the on-water display on the Swan River, which demonstrated Australia's capability for responding to an oil spill. The display was well received by delegates as it allowed them the opportunity to observe a response in practice and view the oil spill response equipment that would be used in a real life pollution response incident.

Oil Spill Monitoring Handbook

AMSA's 2003 Oil Spill Monitoring Handbook has been given a significant refresh by an expert team led by the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

The revised handbook will be available in hardcopy but also online, to allow it to evolve with best practices. It contains an overview of the chemical and physical properties of oil, the toxicological impacts of oil exposure, and the impacts of oil exposure on different marine habitats of relevance to Australia. It also provides context to monitoring by showing how it should integrate into an oil spill response and organisation, and how it supports decision-making, such as Net Environmental Benefit Analysis. The handbook contains significant general guidance on spill monitoring approaches and technologies and is supplemented by in-depth discussion on both response-phase and recovery-phase monitoring design and delivery. Appendices deliver detailed standard operating procedures for practical observation, sample and data collection.

AMSA would like to extend a special thanks to the CSIRO and Mike Holloway of Victoria for their invaluable contribution.

The 2016 Oil Spill Monitoring Handbook is due for publication by the CSIRO in the coming months.

OIL SPILL MONITORING HANDBOOK



Editors: Sharon Hook, Graeme Batley, Michael Holloway, Paul Irving and Andrew Ross

Environmental and Scientific and Technical (ES&T) Coordinators' Workshop

Question: "How do you get 50 scientific types on to St Kilda Beach in the middle of winter?"

Answer: Tell them it's an oil spill monitoring training exercise, and a good coffee shop is close by.

From 9-11 August more than 50 National Plan experts from around Australia and beyond, converged in St Kilda for the 25th Environment and Scientific and Technical Coordinators' Workshop.

All Australian jurisdictions were represented at the workshop, which also included representation from Maritime New Zealand, AMOSC, CSIRO, the Australian Institute of Marine Science (AIMS), the Australian Fisheries Management Authority (AFMA), the Great Barrier Reef Marine Park Authority (GBRMPA), and maritime and petroleum sectors.

Events included a mix of formal and informal presentations, with particular highlights this year being:

- an on-water, on-the-boat demonstration of CSIRO's TowFish dispersant monitoring kit;
- an oil spill monitoring masterclass featuring the forthcoming CSIRO Oil Spill Monitoring Handbook and the field activity 'on-the-beach';
- a half day desktop exercise on Net Environmental Benefit Analysis (NEBA); and
- the use of dispersants with teams having their advice scrutinised and critiqued live by senior response leaders.

The workshop included a two-hour interactive video conference session from Dr. Lisa DiPinto from NOAA (National Oceanographic and Atmospheric Administration, Natural Resource Damage Assessment (USA)) on significant scientific learnings from the Deepwater Horizon incident and response.

This year's workshop marked a number of milestones, with it being the 25th workshop (though facilitated under slightly different workshop titles over the past 28 years). The workshops started in 1988 as the 'Scientific Support Coordinators' workshop'. It was also the 22nd time GEMS had coordinated and facilitated the workshop, since 1994. Interestingly, at least four participants who were at the 1994 event are still a part of the ES&T Network in various roles (Chris Gray, GEMS, Jamie Storrie, AMSA; Peter Scanes, NSW; and Peter Pfennig, SA). The 2016 ES&T workshop was also voted by participants as the most effective program ever presented.

During discussions, issues were identified that the ES&T Network want to address, through volunteer working groups and to improve their capacity to provide expert advice. Some of the issues identified include Indigenous engagement, net environmental benefit analysis, waste management, and ES&T Member Induction.

The rejuvenated ES&T network of members is in good health with a high calibre of incident response leaders.

National Response Team annual workshop

From 21-23 June AMSA hosted a Shoreline Response Course in Adelaide, South Australia. Participation consisted of National Response Team (NRT) personnel from Queensland, New South Wales, Victoria, South Australia, West Australia, Tasmania and AMSA.

The aim of the course is to provide personnel with the skills and knowledge required to lead and participate in a team tasked with an oiled shoreline assessment and clean up response.

On successful completion, shoreline supervisors or coordinators will be able to:

- lead a team in shoreline assessment and clean up
- collate data to estimate the extent and degree of oiling
- establish teams, plan and implement worksite management zones
- coordinate, supervise and manage oiled shoreline clean-up activities.

Inaugural hazardous and noxious substances training course

In April 12 Fire and Rescue NSW (FRNSW) HAZMAT officers took part in the first Hazard and Noxious Substances (HNS) Reconnaissance Team training course, held at the Australian Maritime College in Tasmania.

The course aims to give HAZMAT officers the maritime skills required to support the new HNS incident reconnaissance capability being developed as part of the National Plan. This new capability will allow a team of four (three HAZMAT officers and one AMSA Maritime Casualty Officer) to be deployed to a vessel at sea in the event of an onboard HNS emergency. The team will then be responsible for providing information back to decision makers on shore so that an effective response can be coordinated while avoiding having to bring potentially dangerous substances into port.

The course contained a number of components including:

- an introduction to the maritime industry
- a tour of the Searoad Tamar Roll on Roll Off cargo ship in Devonport
- sea survival training exercises
- ship boarding exercise
- ship familiarisation
- simulator exercises.

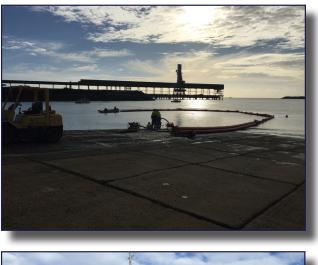
The course was extremely well received by the FRNSW officers who said they had learnt valuable skills that would be of use both for the capability, but also in their day-to-day jobs.

What's happening in Queensland?

North Queensland Bulk Ports

On 24 May North Queensland Bulk Ports (NQBP), in collaboration with Maritime Safety Queensland (MSQ), undertook a live exercise for emergency response deployment at the Port of Mackay. The exercise was facilitated by NQBP's First-Strike Response Coordinator and the On-scene Commander, Jeff Sadler. The exercise involved MSQ representatives and NQBP's First-Strike Responder Team for the Port of Mackay (11 members).

NQBP's Board Members were able to observe the full exercise which also included an overview of the multi-tiered response to a marine spill and the responsibilities of NQBP to coordinate the response. The training exercise allowed for familiarisation of equipment, question time, and the opportunity for NQBP and MSQ to work in collaboration.





Maritime Safety Queensland

Queensland's Vessel Traffic Service

Maritime Safety Queensland (MSQ) operates a network of five vessel traffic service (VTS) centres throughout Queensland. The VTS track, monitor and communicate with vessel crew to assist them to safely navigate through Queensland ports, the Great Barrier Reef and Torres Strait. One of the objectives of the VTS is to minimise the risk of a maritime accident and consequential ship-sourced pollution and damage to the marine environment.

Queensland's VTS network monitored and assisted close to 19,000 ship movements through Queensland ports and 11,250 ship movements through the reef in 2015-16. It is rewarding to note that the department's aim of 100% safe ship movements was achieved during that period.

VTS is recognised internationally as a navigational safety measure through the *International Convention on the Safety of Life at Sea 74/78* (SOLAS). Maritime Safety Queensland has been appointed as a VTS authority under the provisions of the *Navigation Act 2012* for eight Queensland ports (Brisbane, Gladstone, Hay Point, Mackay, Abbot Point, Townsville, Cairns and Weipa) and the Great Barrier Reef and Torres Strait Vessel Traffic Service (REEFVTS). This highlights the key role that the VTS plays in assisting and maintaining the safety and sustainability of the state's ports, the Great Barrier Reef and the Torres Strait.

Further information on VTS can be found on MSQ's website.

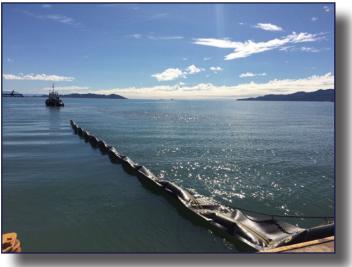
Training

Queensland continues to maintain and enhance its marine pollution response capability. Since the last edition of On Scene, a number of Queensland personnel have completed accredited National Plan and other oil spill response training courses (as below).

Course type	Courses	Participants
Advanced Equipment Operator Course	1	13
Basic Equipment Operator Course	3	45
Equipment Familiarisation Course	3	19
Incident Controller Course	1	3
Incident Management Team Course	1	4
Logistics Officer Course	1	3
Operations Officer Course	2	4
Planning Officer Course	1	2
Shoreline Response Course	1	22
Total	14	115

To help reinforce this training (as above) MSQ hosted a desk-top oil spill response exercise in Mackay on 9 June. The exercise was based on an oil spill incident in the coal export port of Hay Point, approximately 38 kilometres south of Mackay. The exercise scenario involved a collision between a tug and a bulk carrier resulting in the release of 20 tonnes of bunker fuel oil into the marine environment.

All who participated in the exercise agreed that it was good test of stakeholder liaison and provided an ideal opportunity for participants to rehearse the activation and operation of MSQ's Incident Control Centre in Mackay. The exercise also provided MSQ with a good opportunity to evaluate the competencies of members of the regional Incident Management Team, familiarise other agencies with the resources and equipment available for an oil spill response in the region, and improve the understanding of the existing contingency planning arrangements for spills in Queensland and Great Barrier Reef waters.



Advanced Equipment Operator Course in Townsville



Exercise Coal Express in Mackay

What's happening in South Australia?

Response functions

The Department for Planning, Transport and Infrastructure (DPTI) is continuing with a reform and rejuvenation process to ensure it has the correct structure and resources for Marine pollution response.

DPTI's commitment to the National Plan and the provision of NRT members is ongoing and is strengthened by participation in national training courses.

New projects

South Australia and, in particular, the Great Australian Bight, is receiving a significant amount of interest in offshore gas and oil exploration from a number of title holders.

This is an interesting and exciting time for the Government of South Australia; the state does not have any offshore activities at present.

Petroleum exploration in the Great Australian Bight (GAB) region has been undertaken without reported or identified environmental harm since the late 1960s.

The protection of the GAB and its adjacent coastal environment is a primary concern for the South Australian Government. Plans for, and operations of, oil and gas projects must ensure no unacceptable risks to the Great Australian Bight, or indeed any other part of South Australia's marine and coastal environments. The Department of Planning, Transport and Infrastructure (DPTI) within the South Australian Government is the control agency under the Emergency Management Arrangements, responsible for state offshore oil spill response and oil pollution emergency planning, should an oil spill occur in Commonwealth waters and cross into state waters. The South Australian Government has the processes, plans and agencies in place to effectively and efficiently combat such a situation, should it occur.

The Department for State Development (DSD) and DPTI (as the control agency) have been working closely with the first of the title holders, BP Australia, in not only understanding offshore exploration but also in updating the South Australian Marine Oil Spill Action Plan (SAMSCAP) to bring it in line with the current incident management doctrine.

The Government of South Australia has been consulted and engaged significantly in the National Offshore Petroleum Safety and Environment Management Authority (NOPSEMA) regulatory approval process for both the Environmental Plan and the Oil Pollution Emergency Plan. DSD and DPTI are continuing their consultation with BP to ensure that all parties are prepared and trained for any eventuality.

To find out more about BP's plans in the Great Australian Bight please visit their website.

To find out more about the state of play for offshore oil and gas activity in South Australia and adjacent waters please check out the facts recently published by the Department of State Development.

Upcoming National Plan training

Course	Date (2016)	Location
Shoreline Response (for Transport for NSW)	11-13 October	Magenta – NSW
Level 3 Incident Controller	17-21 October	Yarra Valley Estate – Victoria
Shoreline Response (for Maritime Safety Queensland)	8-10 November	Gladstone – Queensland

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