

SUBMISSION BY THE AUSTRALIAN MARITIME SAFETY AUTHORITY – COMMISSION OF INQUIRY INTO THE UNCONTROLLED RELEASE OF OIL AND GAS FROM THE MONTARA WELLHEAD PLATFORM IN THE TIMOR SEA

Introduction

The Terms of Reference for the Montara Commission of Inquiry and associated Issues Paper include several matters relevant to the Australian Maritime Safety Authority (AMSA). In particular:

- Under TOR 2, the Issues Paper refers to the regulatory regime, and notes that AMSA “is Australia’s national maritime safety agency with responsibility for maritime safety, protection of the marine environment and aviation and marine search and rescue.” Section 1 of the submission provides information on this issue.
- Under TOR 6, the Issues Paper refers to “The National Marine Oil Spill Contingency Plan, managed by AMSA”, and the specific questions of “Whether the National Marine Oil Spill Contingency Plan adequately envisaged an uncontrolled release of hydrocarbons of the magnitude and duration of the Uncontrolled Release and in such a remote location in Commonwealth waters, or at least provided an adequate framework that could be adapted effectively to cope with differing events.” and “Whether the response(s) from....AMSA were appropriate.” Sections 2 and 3 of this submission provide information on these issues.
- Under TOR 7, the Issues Paper refers to the adequacy of the Monitoring Plan for the Montara Well Release Timor Sea, and notes that the plan includes “...an Operational Monitoring Programme, with the monitoring to be undertaken by AMSA in accordance with the National Marine Oil Spill Contingency Plan.” Section 4 of this submission provides information on this issue.
- Under TOR 11, submissions are invited to put views on matters that are material to the Inquiry that may not be adequately covered by the specific matters addressed in the Terms of Reference. In this context, Section 5 of this submission provides information on relevant funding arrangements.

Australia’s National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances provides for an analysis to be undertaken following each major oil pollution response. This analysis has commenced, and further details are provided in Section 6 of this submission.

1. Regulatory regime - AMSA

As indicated in the Issues Paper, the Australian Maritime Safety Authority (AMSA) is Australia’s national maritime safety agency with responsibility for maritime safety, protection of the marine environment and aviation and marine search and rescue. AMSA is governed by the *Australian Maritime Safety Authority Act 1990* and is a Commonwealth Authority under the *Commonwealth Authorities and Companies Act 1997*.

AMSA reports to the Australian Parliament and to the Government through the Minister for Infrastructure, Transport, Regional Development and Local Government, the Hon. Anthony Albanese MP.

AMSA’s ship safety regime does not, however, apply to offshore petroleum operations. The *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGGS Act) provides in section

640 that the *Navigation Act 1912* and *Occupational Health and Safety (Maritime Industry) Act 1993* do not apply to “facilities” in the offshore industry. “Facilities” include vessels undertaking certain offshore petroleum operations specified in Clause 4 of Schedule 3 to the OPGGS Act until they are returned to “navigable form” (i.e. capable of undertaking a seagoing voyage). The offshore safety regime administered by the National Offshore Petroleum Safety Authority under the OPGGS Act applies to these vessels when they are “facilities” and not the ship safety regime administered by AMSA.

AMSA consultation with the offshore industry

The *Australian Maritime Safety Authority Act 1990* requires in section 12 that AMSA consult in the performance of its functions and the exercise of its powers, where appropriate, with government, commercial, industrial, consumer and other relevant bodies and organisations.

AMSA’s Advisory Committee includes members representing the offshore industry. The Committee is AMSA’s top level forum comprising senior executive representatives of AMSA’s key stakeholders. It was established by the AMSA Board as a non-statutory consultative body to provide input on the future directions, both international and national, of the maritime industry, advice on issues that may affect AMSA, and consultation on proposed changes to AMSA’s operations. It usually meets three times each year with one meeting held jointly with the AMSA Board.

AMSA also consults directly with offshore industry participants to gain their views in determining Australia’s position in international forums, such as the IMO, when considering relevant ship safety and environment protection standards. Consultations also take place about the implementation of significant international treaty standards into Australian law, particularly in relation to AMSA’s development of new and amended Marine Orders, in addition to general consultation with stakeholders.

2. Australia’s National Plan

Background

Australia’s National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances (the National Plan) was established in 1973 and is a national integrated Government and industry organisational framework enabling effective response to marine pollution incidents. AMSA manages the National Plan, working with State/NT governments and the shipping, oil, exploration and chemical industries, emergency services and fire brigades to maximize Australia’s marine pollution response capability.

The National Plan provides a national framework for responding promptly and efficiently to marine pollution incidents by designating competent national and local authorities, and maintaining:

- the National Marine Oil and Chemical Spill Contingency Plans;
- detailed state, local and industry contingency plans;
- an adequate level of strategically positioned response equipment; and
- a comprehensive national training program, including conducting regular exercises.

The National Plan framework and operation is not prescribed in legislation, although the following legislation is relevant:

- The *Protection of the Sea (Shipping Levy) Act 1981* and the *Protection of the Sea (Shipping Levy Collection) Act 1981* apply the levy to fund the National Plan (see Section 5 below); and
- *Australian Maritime Safety Authority Act 1990* provides that one of the functions of AMSA is to “combat pollution in the marine environment.”¹

Division of Responsibility

The responsibilities of National Plan participants are clearly defined in the Inter-Governmental Agreement on the National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances (IGA). This agreement can be located on the AMSA web site² and provides the basis for access to equipment and dispersant stockpiles, equipment maintenance and storage, funding and joint use of resources. State, local and industry contingency plans support the arrangements. Each State/NT has a National Plan State Committee, chaired by a senior member of the State/NT marine or environmental authority.

Responsibility for responding to marine spills is set out in the IGA,³ and may be summarised as follows:

- at oil or chemical terminals, oil exploration rigs, platforms and pipelines - the relevant oil or chemical company, with assistance from Government agencies, as required;
- in ports (other than terminals) and within the three nautical mile coastal waters limit - the responsible State/NT authority through the National Plan State Committee, with assistance from AMSA as required;
- beyond the three nautical mile coastal waters limit - the Commonwealth through AMSA, except in incidents when oil is likely to come ashore. In such circumstances, the State/NT, through the National Plan State Committee, will be the combat authority for protecting the coastline, while AMSA assumes responsibility for ship operational matters such as salvage;
- in the Great Barrier Reef - the Queensland government through the National Plan State Committee, with assistance from AMSA as required.

Management structure

The National Plan Management Committee (NPMC) provides strategic oversight of the Plan, including setting of broad policy directions, oversight of formal arrangements between stakeholders and provides advice to the Australian Transport Council on the collection and distribution of funds for the National Plan.

The National Plan Operations Group (NPOG) supports the Management Committee by addressing operational aspects for the National Plan, such as equipment, training, contingency planning and exercises. NPOG has established three working groups to attend to specific issues on oil, chemicals and the environment.

Levels of Response

The National Plan employs a tiered response model for contingency planning, a concept employed widely across the emergency management field. Each response tier links credible spill scenarios with attainable scales of response and inter-agency/governmental arrangements.

¹ Paragraph 6(1)(a)

² http://www.amsa.gov.au/Marine_Environment_Protection/National_plan/Inter_Governmental_Agreement.asp

³ Schedule 1

In practical terms this planning approach provides the basis for the escalation of a response in terms of resource requirements and likely or actual environmental impact.

The National Plan's three levels of tiered response are based on the following spill scenarios:

- *Tier 1 - up to 10 tonnes* – a small spill requiring a local response. The Combat Agency will generally be able to respond to and clean up a spill utilising local resources. In cases where additional resources are required, these will generally be available from the local port authority, or by utilising National Plan resources in the region, or from adjacent industry operators under mutual aid arrangements.
- *Tier 2 - between 10 and 1000 tonnes* – a medium spill requiring regional and/or national assistance. The resources of the Combat Agency will need to be supplemented by other resources from intrastate and possibly interstate. Interstate resources will be facilitated through AMSA.
- *Tier 3 - above 1000 tonnes* – a large spill requiring national assistance. The Combat Agency will require local, regional, national and possibly international assistance. Interstate and international resources will be facilitated by AMSA.

Training

Regular training programs and exercise are conducted for personnel likely to be involved in a spill response. Training courses are run by AMSA, the States/NT and industry. Oil spill training is conducted on three levels:

- *Senior Management* - for senior government and industry management personnel responsible for high level decision-making.
- *Middle Management* - for middle management personnel responsible for managing operational responses, their deputies, and environment and scientific coordinators.
- *Operator* - for supervisors appointed as site managers and personnel responsible for undertaking on-site clean up and support operations.

The 2007/2008 National Plan Annual Report indicates that 193 personnel attended National Plan Training Courses run by AMSA during the year.⁴ During the same period over 400 personnel received some form of oil spill response training conducted by the Australian Marine Oil Spill Centre in Geelong (see below) either by attending workshops in Geelong or benefiting from programs developed specifically for their local operation and conducted on-site.

National Plan Equipment Stockpiles

The National Plan has nine major stockpiles of dispersant and oil spill response equipment strategically located around the country. The major stockpiles are located in Townsville, Brisbane, Sydney, Melbourne, Launceston, Port Adelaide, Fremantle, Dampier, and Darwin. This equipment is primarily for responding to larger oil spills (tier 2 and 3). This is complemented by 'first strike' oil spill response equipment held at all major ports.

Types of equipment include oil spill control booms of varying types and sizes, self-propelled oil recovery vessels, static oil recovery devices and sorbents. There is also a range of storage devices including free standing tanks and towable storage bladders and bags complement recovery devices.

⁴ Page 6

A summary listing of National Plan equipment and dispersant is at Appendix 1.

Industry Response Arrangements

The Australian Marine Oil Spill Centre (AMOSC), a subsidiary of the Australian Institute of Petroleum (AIP), is an integral part of the National Plan. AMOSC, based in Geelong, Victoria, provides a central stockpile of industry-owned oil spill response equipment. In an oil spill response AMOSC has, in addition to its own staff, access to personnel from the major oil companies. AMOSC also coordinates the industry's mutual aid arrangements.

AMOSC is financed by nine participating oil companies and other subscriber companies. These companies carry out the vast majority of the oil and gas production, offshore pipeline, terminal operations and tanker movements around the Australian coast. The operator of the Montara platform, PTTEP Australasia, is an AMOSC subscriber company and consequently has direct access to AMOSC equipment and personnel.⁵

PTTEP is also a Participant Member of Oil Spill Response (OSR), based in Singapore. OSR is an oil industry response co-operative with a large stockpile of air-transportable equipment designed to combat spills in the Asia-Pacific region.⁶ OSR also has equipment stockpiles in Southampton (UK) and Bahrain.

AMOSC, OSR and the Australian oil companies provided 41 personnel who were directly involved in the response to the Montara oil spill.

National Response Team and Support

The National Response Team (NRT) provides support to the Australian and States/Northern Territory (NT) Governments in the event of a major oil pollution incident. The NRT consists of 63 appropriately trained personnel – nine from each State/NT – covering the key oil spill response roles of planning, operations, logistics, aerial observers and Response Team Leaders. During the Montara oil spill response, 43 NRT personnel from all jurisdictions were used at various times, with many returning for several "rotations" through the various roles.

Use of Dispersants

The careful and controlled use of oil spill dispersants is an effective tool in combating oil spills at sea and there is a well documented history of the successful use of oil spill dispersants in minimising the impacts of oil spills upon the marine environment.⁷ Oil spill dispersants can also be effective in reducing exposure of sea birds to oil as most sea birds are oiled by slicks on the surface of the sea or in near-shore coastal habitats.

Undispersed slicks and residual oils are a persistent threat to foreshores, birds, mammals and intertidal communities due to the toxicity of, and contact with oil. Dispersed oil is less "sticky" than undispersed oil, therefore the adhesion and absorption onto surfaces and sediments of dispersed oil is greatly reduced compared with the original oil slick.

In a spill incident environmental trade-offs of protection and impact will occur. These decisions are not taken lightly by response authorities and are based on the best available advice and scientific data to achieve a net environmental benefit. Net environmental benefit analysis involves the setting of environmental objectives and weighs the advantages and disadvantages

⁵ Go to <http://www.aip.com.au/amosc/> for further information

⁶ Go to <http://www.oilspillresponse.com/> for further information

⁷ For additional information on dispersants, see the International Tanker Owners Pollution Federation web site, <http://www.itopf.org/spill-response/clean-up-and-response/dispersants/>

of response options in meeting these priorities. In the context of dispersant this is a direct comparison of the effects of dispersed oil versus the effects of undispersed oil. If the dispersed oil is considered to have a greater impact on the priority environmental resources than undispersed oil the response option is discounted.

All dispersants approved for use within Australian waters have passed laboratory acute toxicity testing requirements for two temperate and two tropical marine species as specified by a protocol applied under the National Plan arrangements.⁸ At the application rates used in oil spill incidents, and mixing conditions of the ocean, oil spill dispersants would not, in most circumstances, be toxic to marine organisms. It is for this reason that responders focus on the effects of the dispersed oil in evaluating whether dispersants are a viable response option (as discussed above).

Spill responders will generally avoid using oil spill dispersants in or near coral reefs, in shallow waters, sea grass beds or where poor water exchange or circulation is apparent, unless in exceptional circumstances to protect mangroves or other highly sensitive foreshores.

There is only a limited "window of opportunity" to use chemical dispersant in an oil spill incident. This is primarily due to the changing physical and chemical properties as the oil weathers over time. The window of opportunity can also be determined by the location and speed of movement of the slick onto the foreshores or into estuarine environments.

This window of opportunity may be as little as only a few hours. If the conditions are favourable, as in this incident, the window of opportunity may be up to two days.

Fixed Wing Aerial Dispersant Spraying

The National Plan has in place a Fixed Wing Aerial Dispersant Capability (FWADC) program for the application of oil spill dispersant. The FWADC uses large agricultural aircraft with a dispersant capacity of between 1850 and 3100 litres. This complements dispersant spraying arrangements using helicopters, which are confined to close inshore work. The cost of the FWADC is shared between AMOSC and AMSA, and the service is provided by Australian Maritime Resources.

Support Systems

A computer-based Oil Spill Trajectory Model (OSTM) is used to simulate and predict the movement of oil spills. The information provided assists those making decisions on measures needed to counter the threat to the marine environment. This capability is funded by the National Plan and managed by AMSA, with services provided by Asia-Pacific Applied Science Associates, based in Queensland. OSTM modelling was used extensively during the Montara oil spill response, for both daily deployment of assets and longer term strategic planning.

The National Plan Oil Spill Response Atlas (OSRA) is a computer-based digital mapping system that allows operators to overlay various types of data to identify biological, cultural, geomorphological and socio-economic resources that may require protection during and oil pollution incident. OSRA was used during the Montara oil spill response to assist in planning appropriate response actions should any oil come ashore.

International Links

⁸ http://www.amsa.gov.au/Marine_Environment_Protection/National_plan/General_Information/Dispersants_Information/Oil_Spill_Dispersants.asp

Australia was one of the first countries to adopt the International Convention on Oil Pollution Preparedness, Response and Co-operation 1990 (OPRC Convention). Australia is also a party to the 2000 Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances. A primary purpose of these instruments is to focus the world's response capability on the problem so all nations will benefit.

This is delivered through:

- Regional and national systems for preparedness and response (Australia has agreements in place with New Zealand, New Caledonia, Indonesia and Papua New Guinea, and plays a key role in PACPLAN, the oil spill contingency plan for the South Pacific Regional Environment programme);
- Facilitation of international cooperation and mutual assistance;
- Information exchange;
- Promotion of research and development;
- Technical cooperation and training;
- Oil pollution emergency plans for ships, offshore platforms and sea ports; and
- Oil pollution reporting procedures.

The National Plan implements most of Australia's obligations as a signatory to the convention. For a major oil spill Australia may need to call upon overseas assistance from the OSR stockpiles at Singapore or Southampton, UK.⁹ For the Montara incident response, equipment and personnel were obtained from OSR in Singapore and Southampton. This was arranged through the AMOSC links to OSR.

In accordance with the OPRC Convention, early advice of the oil spill was passed to the London headquarters of the International Maritime Organization (IMO).

Risk

During the 1990s, assessment of the risk of oil spills in Australia was based primarily on a 1991 Bureau of Transport and Communications Economics study.¹⁰ This study covered risks of spills from oil tankers, platforms and pipelines and gave results that were acknowledged at the time as potentially pessimistic. With respect to the risk of oil spills from platforms and pipelines,

...the probability estimates were based upon US data. If the same determinants apply to the present Australian situation, the probability of one or more major oil spills occurring could be 39 per cent in the next five years and 83 per cent in the next 20 years. These estimates are subject to a number of qualifications; the extrapolation from overseas experience will yield pessimistic risk evaluations to the extent that the current Australian disciplines and conditions are better than historical overseas circumstances.¹¹

A further risk assessment was undertaken as part of a review of the National Plan in 2000. The outcomes indicated that there are some key areas of relatively high risk around the coast: most of the east coast of Queensland, the southwest and northwest areas of Western Australia; and the major port areas around Sydney and Melbourne. The distribution of risks between ships at sea, ports and offshore facilities indicated that ports are the major overall contributor to risk levels, as the density of ships and the frequency of operations associated with a spill risk are highest in

⁹ <http://www.oilspillresponse.com/>

¹⁰ Major Marine Oil Spills – Risk and Response – Report 70, <http://www.bitre.gov.au/publications/68/Files/R070.pdf>

¹¹ Page XI

and around ports. Ships at sea can contribute to risks around the entire coast, but at relatively low levels in any specific location due to the low density of ships throughout Australian waters.

The assessment concluded that “offshore facilities are low contributors to the overall risk level across Australia, but are significant contributors to the risks in their local areas as they are concentrated into a few locations.”¹² The risk assessment was conducted by Det Norske Veritas, and with respect to offshore facilities, used the Offshore Facilities Risk Model, based on the Dutch Government Oil Spill Risk Database (OSRD), developed by DNV in 1992 from North Sea and US offshore experience between 1975 and 1990. OSRD estimates the size and frequency of oil spills “per activity”, where the activity can be any of the standard offshore operations associated with oil spill risk.

The results of this risk assessment were generally in agreement with previous studies, and provided the basis for management, policy and decision making arrangements of the National Plan. Based on this data, the National Plan currently has a notional capacity to respond to an oil spill of up to 21,000 tonnes with equipment stockpiled in Australia.¹³ This is based on a scenario involving the grounding of a loaded oil tanker with the loss of up to two full tanks of crude oil. A larger spill could require additional resources from overseas.

Responding to oil spills from offshore platforms

As indicated above, the National Plan IGA defines the roles and responsibilities of the various stakeholders, primarily by reference to “Statutory Agencies” and “Combat Agencies”.

In accordance with the relevant legislation, the Statutory Agency for pollution events from offshore petroleum operations is the “Designated Authority” in that State or Territory. This applies for spills both within and outside coastal waters. AMSA’s understanding is that the Designated Authority for the Montara Wellhead platform is the NT Department of Regional Development, Primary Industry, Fisheries and Resources, although at times this did not appear to be clear to all stakeholders, and from AMSA’s perspective the Designated Authority played no part in the response.

The “Combat Agency” for such pollution events, both within and outside coastal waters, is the relevant oil company with assistance, as required, from Government. In this instance, PTTEP Australasia officials recognised very quickly that the response was beyond the capacity of the company, and Combat Agency responsibility was therefore passed to AMSA by an exchange of correspondence dated 22 August 2009 (Appendix 2).

A “Combat Agency Transfer Operational Protocol” has been agreed between the National Plan Operations Group and the Environmental Assessors Forum and applies in such circumstances. A copy of the Protocol is at Appendix 3.

Summary

Past risk assessments have concluded that offshore facilities are a relatively low contributor to the overall risk level. While it might therefore be said that the National Plan did not envisage an oil spill of the magnitude and duration of the oil spill from the Montara Wellhead platform, in reality plans exist to escalate a response if the nature of the incident exceeds the most likely scenarios used for strategic planning purposes. A response of more than three months, however, severely strained the resources of AMSA and all of the States/NT with respect to the National Response Team members. Had response operations been required beyond 3 December, AMSA

¹² Report of the 2000 Review, page 46

¹³ Report of the 2000 Review, page 19

would have faced considerable difficulty in filling key positions without compromising other AMSA core business requirements and exhausting capacity to respond to new pollution incident developments.

Notwithstanding this, AMSA considers that the National Plan provides an adequate framework that can be adapted effectively to cope with differing events, specifically:

- Assistance may be sought from overseas in accordance with the International Convention on Oil Pollution Preparedness, Response and Co-operation;
- As evidenced in the Montara incident response, additional resources are available through a formal agreement with the oil industry to access equipment stockpiles in Singapore and the United Kingdom.

3. Response to the Montara oil spill

On receiving notification of the event on 21 August, and prior to confirmation of oil being released from the well, AMSA enacted the National Plan and initiated action as follows:

- Immediately tasked one of AMSA's contracted Dornier aircraft to over-fly the incident and determine the scale of the problem and provide initial intelligence for response planning. The aircraft dropped two self locating datum marker buoys to track oil and net water movement;
- Activated the National Response Team;
- Requested AMSA's Fixed Wing Aerial Dispersant Contractor, Australian Maritime Resources (AMR), to deploy two aircraft and a manager to the closest aerodrome to the incident scene (Truscott) ready for first light response operations the next day (Saturday);
- Deployed AMSA personnel to Truscott and Darwin ready for operations on the Saturday. AMSA staff continued rotating through the positions throughout the course of the incident;
- Sought a liaison officer from PTTEP Australasia to work with AMSA in Canberra;
- Deployed dispersant (initially approximately 50 tonnes) from the Australian Marine Oil Spill Centre (AMOSC) to supplement existing stocks at the AMSA Darwin equipment stockpile;
- Investigated other options to contain the oil and limit the effects, with aerial dispersant C-130 aircraft from Singapore tasked on 21 August 2009 and arrived in Darwin on 22 August; and
- Held discussions with counterparts in other agencies to assess availability of assets that would be required.

AMSA determined that the overall objective of the response would be to prevent oil from impacting on sensitive marine resources, in particular the marine parks of Cartier and Ashmore Reefs, and the NW Coast of Western Australia. A summary of AMSA's response actions is included in a statement by AMSA's Chief Executive Officer during a Senate Estimates Committee hearing on 20 October 2009 (Appendix 4).¹⁴

A Co-ordination Group was established by AMSA. This Group was chaired by AMSA and included:

- Department of the Environment, Water, Heritage and the Arts (DEWHA);
- Department of Resources, Energy and Tourism (DRET);

¹⁴ Rural and Regional Affairs and Transport Legislation Committee.

- Department of the Prime Minister and Cabinet;
- Australian Fisheries Management Authority (AFMA);
- PTTEP Australasia;
- Australian Maritime Oil Spill Centre; and
- Department of Foreign Affairs and Trade.

This Co-ordination Group met every week day from 24 August until 9 November, and then generally every second week day until the response was terminated on 3 December.

The ongoing operations involved equipment from oil industry stockpiles in Singapore and Geelong, as well as AMSA stockpiles in Darwin and other States. Response personnel were provided by the oil industry and AMSA as well as through National Response Team arrangements, meaning assistance was provided by all States/NT. Assistance was also provided by New Zealand personnel in accordance with formal arrangements between Australia and New Zealand.¹⁵ PTTEP Australasia provided a liaison officer based in AMSA's Canberra office for the first several days of the response.

Fixed wing aerial surveillance was primarily conducted using an AMSA contracted Dornier aircraft based at Darwin. Additional aircraft (e.g. Cessna Conquest, King Air or Metro), also based in Darwin, was chartered to provide a supplementary surveillance capability. The Dornier was tasked daily (average 4.5 - 5 hours flying time for each sortie) and the supplementary aircraft as required. In the case of the preferred aircraft not being available, other suitable aircraft were chartered. A helicopter from Truscott was also used to keep reefs and islands under surveillance for any oil impact.

These aircraft were used to gather oil spill intelligence, environmental data, and direct the surface vessels and dispersant spraying aircraft to heavy concentrations of oil.

Dispersant spraying operations from the C130 aircraft commenced on 23 August and continued until 1 November (see below).

Containment and recovery operations commenced on 5 September and continued until 3 December, although no recoverable oil was located after 15 November. These operations involved two vessels working together joined by a 300 metre containment boom held in a "J" configuration, with a skimmer operating in the boom "pocket" to recover the oil (See figure 1, below). For much of the response, two pairs of vessels undertook these operations.

¹⁵ Memorandum of Understanding between the Australian Maritime Safety Authority and the Maritime Safety Authority of New Zealand on oil pollution preparedness and response

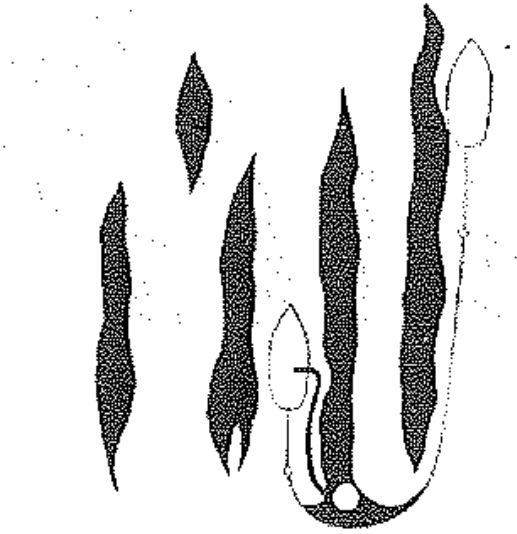


Figure 1 - Containment and recovery operations - "J" configuration

It is relatively unusual for such containment and recovery operations to be possible in open waters, where even a low swell and moderate winds can make booms ineffective. In any event, containment and recovery was undertaken on 35 days during the response, with a total of 844,000 litres of product recovered (see Appendix 5). It is estimated that some 493,000 litres of this oil-water mixture was oil or oil emulsion. The recovered oil was stored in intermediate bulk containers (IBC's) on the deck of the vessels and unloaded regularly to the *Challis Venture* platform.

Around 6-7 November there were sightings of oil patches in the vicinity of the Holothuria Banks. Modelling also indicated potential for oil in this eastern region of the Bonaparte Archipelago.

In view of the priority of protecting the Western Australian coast, two Marco H28 oil recovery vessels were sent to the area to work with a mother ship to locate and recover patches of oil in sheltered waters that could not be recovered by larger marine unit assets. These vessels were on station on Monday 16 November in the vicinity of Troughton Island with National Response Team personnel. However, no further significant patches of oil were sighted by either aircraft or vessels, and this combined with a weather forecast that would have made the operation of such vessels unsafe, resulted in these assets being stood down and returned to Darwin on 19 November where they remained on standby.

A concept of operations was developed by AMSA and DEWHA for the shoreline cleanup of oil at Ashmore Reef. However, ultimately there was no requirement to implement this plan.

Following advice from PTTEP Australasia that the wellhead was secure, and an assessment that criteria within an agreed Response Termination Plan had been satisfied, response operations ceased on 3 December. Relevant criteria included:

- DEWHA advising, as the Environment and Scientific Coordinator, that there were no recoverable tar balls, slicks, or sheens threatening Ashmore Reef and Cartier Islet;
- A strategy involving an extensive eight day aerial surveillance program (21 November 2009 – 28 November 2009) confirmed no sighting of visible sheens or oil/wax patches threatening the reefal habitats;
- No significant patches of floating oil sighted in the open water during this period.

- Surface vessels maintaining surveillance within the area of operations did not sight oil during this period;
- Shoreline cleanup on the cays was not instigated during the response as there was no evidence of oil on the cays requiring any response actions; and
- Dispersant spraying operations were not required from 1 November.

A list of resources used can be found at Appendix 6.

Western Australian Government involvement

Throughout the response operations, the WA Department of Transport's dedicated Oil Spill Response Coordination Team (OSRC) was actively involved in monitoring the spill. Three members from the OSRC team were deployed to assist with the clean up operation and members of the State Response Team (SRT) were also deployed to assist in the spill. The SRT is comprised of officers from a variety of WA agencies, organisations and authorities.

The Department of Transport actively maintains and manages the State's prevention, preparation, response and recovery functions for marine oil pollution through:

- Coordinating oil spill preparedness and response across all relevant WA Government agencies through the Western Australian Marine Oil Pollution Emergency Management Plan;
- Working with AMSA to execute the National Plan;
- Training delivery focussed at ports around WA; and
- Management and auditing of marine oil spill response equipment stored in ports around WA.

Movement/location of the oil

Ocean currents, wind, and temperature played integral roles in the movement and spread of the oil. Whilst the benign conditions permitted containment and recovery operations that normally are undertaken only in enclosed waters, this hampered the natural breakup of oil.

Oil movement was generally driven by currents rather than wind. The westerly Indonesian Throughflow current appeared to act as a barrier to the north of the spill area and a combination of distance and current were largely responsible for preventing any oil from impacting the Kimberley Region coastline.

The majority of oil remained within 35 kilometres of the platform with patches of sheen and weathered oil reported at various distances in different directions from the platform as currents, wind, and temperature varied over the three month period.

Sheen was reported at Ashmore, Cartier and Hibernia Reefs by observers on board aircraft on several occasions. Where considered significant surface vessels were deployed to investigate the reports further. On only one occasion, at Ashmore Reef, was residual wax from the Montara crude identified. This consisted of waxy flakes within the lagoon and residue within sediments on one of the cays. These impacts were isolated in nature and not considered recoverable.

The position and movement of the main oil slick near the platform and outlying patches of sheen/weathered oil were monitored by aircraft on a daily basis. These daily observation and monitoring flights reported numerous patches of seasonal natural phenomena heavily present in the region. Such phenomenon is typically algal blooms which has an appearance very similar to oil.

Inexperienced observers may confuse the streamers of yellow material with weathered oil. When any doubt existed as to the identity of a patch of foreign material, sampling by vessel and/or helicopter was conducted.

This phenomenon was generally observed in large patches between the platform and the Truscott air base and the platform and Darwin. Yellow material was also sighted in the vicinity of Ashmore, Hibernia and Cartier Reefs, but this was always confirmed as natural phenomena.

A map showing where patches oil and/or sheen were reported during 10% or more of the surveillance flights undertaken during the period is at Appendix 7. It should be noted however that while sampling was undertaken in some instances, many of these reports could not be confirmed and may have been the natural phenomena described above.

Oiled Wildlife

The Department of the Environment, Water, Heritage and the Arts (DEWHA) worked closely with AMSA and other relevant federal and state agencies to put in place a plan of action to help any wildlife that might be affected by the oil spill and to respond to any possible impacts in nearby Commonwealth marine reserves.

The plan included measures for treating any wildlife found that might be affected by oil at Ashmore and Cartier marine reserves, which are within about 80 nautical miles of the Montara site. It also included ensuring appropriate response equipment was on site at Ashmore Reef should it be needed.

Customs and Border Protection officers on site at Ashmore also regularly surveyed the reserve for any identifiable impacts.

DEWHA worked closely with the Western Australian government, which had plans in place to deal with any oil affected wildlife that might be found in state waters or come ashore on the Western Australian coastline.

Liaison with Indonesia

On 1 September 2009 satellite imagery showed that small patches of weathered oil had crossed into Indonesia's exclusive economic zone (EEZ) established under the 1997 Perth Treaty.

AMSA notified Indonesia in accordance with the 1996 MOU between the Australian and Indonesian governments.

Over flights were conducted and confirmed patches of weathered oil and sheen within Indonesia's EEZ, closing to some 51 nautical miles south east of the Indonesian island of Palau Roti on 21 September.

As part of the ongoing response to the oil spill, two response vessels supported by overflying aircraft entered Indonesia's EEZ on 23 September to conduct containment and recovery operations, using a boom and oil spill skimmer on heavier patches of oil that had been sighted by the aircraft. Australia notified Indonesia of the presence of the vessels and their activities in Indonesia's EEZ. These operations were completed within several days and the vessels returned to Australia's EEZ.

Following this operation, regular over flights continued and indicated primarily sheen within the Indonesian EEZ, with occasional small patches of weathered oil. Daily observation and monitoring flights also indicated patches of natural phenomena such as algal blooms or coral spawn which have an appearance similar to oil. Regular updates were provided to Indonesian authorities.

An overflight on 1 October 2009 was conducted from Darwin with two officials from the Indonesian Director General of Sea Transportation on board the aircraft.

An Australian Government delegation comprising representatives from AMSA, the Department of Resources and Tourism and the Department of the Environment, Water, Heritage and the Arts assisted by Australian Embassy officials visited Indonesia on 10 November to brief Indonesian officials on the oil spill, including clean up operations and environmental issues associated with the spill.

Liaison with Timor-Leste

On 23 September 2009 satellite imagery showed that small patches of weathered oil had crossed into the Joint Petroleum Development Area (JPDA) established under the 2002 Timor Sea Treaty.

AMSA notified Timor-Leste in accordance with legal obligations under Article 10(a) of the Timor Sea Treaty, which deals with cooperation to protect the marine environment of the JPDA so as to prevent and minimise pollution.

Following the initial reports of oil in the area, the JPDA was monitored regularly by aerial surveillance, with small patches of weathered oil and sheen sighted mainly in the south west corner of the JPDA. There were no reports of any oil or sheen sighted after 15 October. AMSA maintained direct contact with the Timor-Leste National Petroleum Association and provided regular updates.

International Maritime Organization

Consistent with Australia's obligations under Article 5 of the *International Convention on Oil Pollution Preparedness, Response and Cooperation 1990* and Article 198 of the *United Nations Convention on the Law of the Sea 1982*, the Australian High Commission in London provided information on the oil spill to the International Maritime Organization (IMO). The relevant contacts at IMO were also including on the email list for daily situation reports.

Use of dispersants during Montara incident

AMSA conducted a net environmental benefit analysis, in accordance with industry best practice, prior to making the decision to apply dispersants. This initial analysis was based on the best information available at the time and documented within the Incident Action Plan. The net environmental benefit analysis was regularly reviewed and updated throughout the response. Each update was recorded in the Incident Action Plan.

AMSA assessed whether the Montara crude oil would be amenable to chemical dispersion. From the properties and chemistry of the Montara crude oil available to AMSA modellers,¹⁶ the following recommendation was provided: "the National Plan approved dispersants will likely have success on the unweathered fresh oil being released from the platform. The use of aerial dispersants in this spill is a sound approach but only on fresh oil. Residual oil that is more than 1-2 days old would have limited dispersability".

Specific factors taken into account in assessing dispersants operations were:

- Dispersion in the immediate vicinity of the Montara platform would reduce the likelihood of floating oil impacting on marine parks of Ashmore and Cartier Reefs. Initial modelling indicated that this was a possibility. It should be noted that at no time was dispersant

¹⁶ Asia-Pacific Applied Science Associates

sprayed over or in the vicinity of coral reefs. Such actions would have been counter to the operational objectives of the response.

- More than adequate water depth for dispersant operations. Charts indicate depths of between 50 and 70 metres in the spray zone. No impacts to benthic communities would be expected.
- Given localised nature of spray operations, it was expected that impacts on individual animals would be limited. Environmental advice was that adult fish are not particularly sensitive to oil and fish kills after oil spills are rare, particularly in open waters. Adult fish tend to swim away from oil.
- Environmental advice was that the risk to cetaceans as a result of the spill was considered to be low, primarily because their skin provides a barrier to the toxic substances in petroleum.
- No significant impact would be expected to species within the upper 5 metres of the water column given predicted levels of dispersed oil (30-50ppm). This compares with a regulated discharge level of 30ppm for produced water formations from facilities.

Additional stochastic modelling undertaken in early September predicted a significant reduction of risk to Ashmore/Cartier Reefs and the Western Australian coastline through the use of dispersants.

During the initial response phase and while the size of the oil spill, movement of the oil slick and ability of smaller fixed wing aircraft to operate effectively at such distances offshore was being assessed, a Hercules C-130 aircraft from the Singapore-based Oil Spill Response company was engaged by PTTEP Australasia, on request of AMSA, to undertake dispersant spraying operations.

However, while the range of the C-130 was well within the requirements of this response and operations on 23 and 24 August did achieve limited results, daily observations indicated that the oil was forming into long and relatively narrow “windrows” (similar to a cricket pitch) and being a large aircraft the Hercules proved difficult to manoeuvre onto and align exactly with the oil windrows. Following operational debriefs on 24 August it was considered that the smaller aircraft would be more effective than the C130 for continued operations requiring accurate delivery of dispersant to relatively narrow patches of oil.

From 25 August spraying operations were undertaken by the AMSA contractor, Australian Maritime Resources (AMR), using two fixed wing aircraft, normally used in crop-dusting operations, flying out of Truscott aerodrome. These aircraft increased the accuracy of delivery to the sea surface, thereby reducing the amount of dispersant required to achieve the desired outcomes. Two aircraft normally based at Ballidu (WA) and Bachelor (NT) operating out of the Truscott aerodrome sprayed some 32,000 litres of dispersant between 25 August and 2 September. Throughout the incident AMR rotated five pilots, five dispersant loading personnel and three airbase managers.

From 3 September, dispersant operations entered a surface delivery phase using suitably equipped offshore support vessels with directions from aircraft in order to target concentrated patches of the oil, and continued until 1 November.

Five different types of dispersant were used in this incident. The amount and location of all dispersant spraying has been recorded (see Appendix 8) and will be taken into account in post-spill environmental monitoring.

Media

Whole of Government media talking points were drafted by AMSA and cleared through other agencies and then provided to the Prime Ministers office on 21 August 2009.

AMSA issued a media release on the 22nd of August indicating that the National Plan had been activated and that AMSA was now coordinating the clean-up response to the Montara well head platform leak. The Chief Executive Officer held a “doorstop” interview with media on Saturday 22 August indicating the situation as it was known at that point. The CEO also undertook other television interviews and a number of radio and print media interviews and ensured he was available to speak to media at all times.

Further media response was provided by the Manager Public Relations or the Media Liaison Officer on a 24/7 basis for the duration of the incident. As well as radio and print interviews, background briefings were provided on a regular basis. Photographs and additional explanatory information on the use of dispersants, National Plan arrangements, and AMSA operations were provided to journalists on an as needs basis. Comment was sought from AMSA by the media on a daily basis throughout the incident.

A total of 23 media releases were disseminated by AMSA and several more were cleared by AMSA for release by the Department of Foreign Affairs and Trade.

There was a close relationship developed between PTTEP Australasia media personnel and the AMSA media team. As a matter of courtesy, media releases were provided between AMSA and PTTEP when a media release was issued. This ensured that there was no conflicting terminology used or variation in messages being publicly disseminated.

AMSA also provided strategic advice to other agencies with regard to the content of their media releases and information to be posted on departmental websites.

A specific Montara Well Head Platform link was established on the AMSA homepage to provide updates on the clean-up response.¹⁷ This site also included types and quantities of dispersants used and quantities of product retrieved in containment and recovery operations.

AMSA adopted an open and transparent approach to dealing with the media during this incident. As all inquiries were handled through a central point of contact, relationships with journalists were enhanced and media coverage for the incident was, in the main, well balanced.

Summary

The overall objective of the response to the oil spill from the Montara wellhead platform - to prevent oil from impacting on sensitive marine resources, in particular the marine parks of Cartier and Ashmore Reefs, and the NW Coast of Western Australia - was achieved. As outlined above, this was accomplished by:

- undertaking dispersant spraying operations utilising aerial and surface application methods;
- undertaking containment and recovery operations;
- conducting aerial surveillance;
- conducting shoreline assessments on Cartier and Ashmore Reefs and the NW Coast of Western Australia; and

¹⁷ http://www.amsa.gov.au/Marine_Environment_Protection/Montara_Well_Head_Platform/index.asp

- undertaking an oiled wildlife response.

However, it is important to recognise that other factors - in particular favourable currents, distance offshore, the type of oil, wind, and temperatures - were equally significant factors in successfully achieving the aims of this response.

In any oil spill response, it is important to recognise that, as noted in the report of the 1993 Review of the National Plan:

*Other than in favourable conditions technology does not exist to prevent weather driven oil coming ashore on a coastline or to guarantee prevention of environmental damage and economic loss, and in many cases the most environmentally friendly solution may be to leave it alone and let nature takes its course.*¹⁸

In any oil spill response, there are always lessons that can be learned and improvements made. This is particularly applicable to this case, given the length of the operations and its remote location. Section 6 below outlines a process that has commenced with the establishment of an Incident Analysis Team (IAT) to examine the response to this oil spill. It is anticipated that the report of the IAT will be available before the Commission of Inquiry is concluded, and a copy will be made available to the Commissioner.

4. Operational Monitoring

Two categories of monitoring are defined within the National Plan arrangements¹⁹:

- Operational (Type I) Monitoring; and
- Non-operational or Scientific (Type II) Monitoring.

An appreciation of the differences between Type I and II monitoring is necessary as the objectives, scope and methods vary significantly.

The objective of operational monitoring is to provide information integral to managing response operations, i.e. to execute response or clean-up strategies. The design of such a monitoring programme requires incident-specific judgements to be made about the scope, methods and data inputs and outputs.

It is important to obtain a balance between the operational needs of the response, with its logistical and time constraints on the gathering and processing of information, and the level of certainty or scientific integrity. The outcome is that the speed of information collection and processing is such that a lower level of sampling and accuracy is adopted than would normally be employed for scientific purposes.

The objectives of non-operational or scientific monitoring are much broader, but generally they seek to attribute cause-effects to the spill. This monitoring includes short term damage assessments, longer term damage assessment (including recovery), purely scientific studies and all post spill monitoring. These programmes are not considered integral to the response and are characterised by having scientific design and execution by scientific professionals. Non-operational monitoring normally extends well beyond the termination of response operations.

¹⁸ Review of the National Plan to Combat Pollution of the Sea by Oil – Report of the High level Working Party, Recommendation 3

¹⁹ Australian Maritime Safety Authority (2003). *Post Spill Monitoring Background Paper*. Prepared by Wardrop Consulting and the Cawthorn Institute for the Australian Maritime Safety Authority and the Maritime Safety Authority of New Zealand. http://www.amsa.gov.au/Marine_Environment_Protection/National_plan/Contingency_Plans_and_Management/Research_Development_and_Technology/Oil_Spill_Monitoring_Background_Paper.pdf

Information collected through operational monitoring can inform subsequent monitoring programmes by providing a baseline of information or including trigger points for implementation of more scientific monitoring programmes, e.g. when a certain habitat is impacted then damage and recovery assessment of that habitat might take place.

AMSA responsibilities for monitoring during the Montara Wellhead incident

Operational and non-operational/scientific monitoring programmes have been implemented in response to the Montara Incident. The implementation of the operational monitoring programme was the responsibility of AMSA in its role of 'combat agency'.

A scientific monitoring programme has been commissioned by PTTEP in agreement with DEWHA. This programme was not constructed under the incident management arrangements, but rather should be viewed as a regulator/proponent relationship. This programme will continue for some time post response operations.

The 'Monitoring Programme for the Montara Well Release, Timor Sea' as agreed by PTTEP and DEWHA on 9 October 2009 details some of the operational monitoring conducted by AMSA. However it needs to be stated that AMSA, in close consultation with PTTEP, commenced operational monitoring at the commencement of response operations, some six weeks prior to the PTTEP/DEWHA agreement on the overall monitoring programme. The inclusion of operational monitoring activities within the Monitoring Plan was for the purposes of documentation rather than initiation of activity.

Adequacy and effectiveness of operational monitoring

The Type I Monitoring programme implemented for the Montara incident was designed to specifically support response decisions. Additional monitoring (including Type II) was integrated into response operations or commissioned by AMSA, prior to the PTTEP/DEWHA agreement, to answer specific questions or to make early and efficient use of resources.

The Type I Monitoring activities can be categorised according to the following objectives:

- Understand the physical and chemical characteristics of the oil;
- Determine the movement and fate of the oil;
- Assess whether response operations were effective; and
- Evaluating immediate effects upon the environment.

Physical and chemical characteristics of the Montara crude oil

The physical and chemical characteristics of the particular oil are a significant factor in the selection of response strategies. These characteristics change over time as the oil naturally weathers and response strategies need to change accordingly.

AMSA sought to develop an understanding of the oil behaviour through:

- Visual assessment of oil behaviour. Response staff conducting aerial surveillance and vessel operations provided daily reports, still and video images to the incident management team. This information was assessed daily and response strategies adjusted accordingly within response plans; and
- Collection and analysis of oil samples. Vessel-based response staff were tasked with the collection of oil samples. These were transported to Darwin and then to Leeder Laboratories in Victoria. The analysis of the oil samples significantly improved the

understanding of the oil and the data was incorporated into modelling significantly improving the predictions of oil movement and degradation rates.

Movement and fate of the Montara Crude Oil

The movement and fate of the oil was monitored throughout the incident. This was critical to the deployment of response assets. The following methods were used to track the oil movement:

- Trajectory modelling. Trajectory modelling was employed to predict the movement of the oil. Some 44 models were run over the course of response operations. The trajectory modelling was employed to target aerial surveillance which then informed response assets.
- Satellite imagery and tracking buoys. AMSA deployed a number of satellite tracking buoys to obtain a better understanding of the local currents and also to follow the movement of the oil at night. The buoys deployed by AMSA were Search and Rescue self locating datum marker buoys, could be deployed rapidly from aircraft and provided useful data to improve trajectory modelling. AMOSC-owned oil spill tracking buoys were also deployed by surface vessels and proved effective in tracking outlying patches of oil, although these buoys are not air-deployable. For future incidents AMSA has identified a potential need for air deployable tracker buoys similar to the type currently used by AMOSC.
- Aerial and vessel surveillance. As noted above, aerial surveillance was used extensively to map the geographical extent of the oil. Up to four sorties were flown each day depending on operational requirements.
- Shoreline survey. Shoreline surveys of coral cays around Ashmore Reef were conducted by DEWHA and PTTEP Australia personnel to confirm that oil had not impacted these areas. These surveys were triggered by trajectory modelling and aerial surveillance observing sheen in the vicinity of the reef. Residual wax from Montara crude oil was observed on 30 October 2009. This material was not considered at levels able to be recovered without excessive removal of sediment.
- Water sampling. A water sampling programme was implemented to determine whether there was a potential for hydrocarbons to enter the water column and affect wildlife. Only one set of samples indicated oil at depths of greater than one metre.

Operational Effectiveness

The operational effectiveness of response strategies, in particular dispersant operations, was monitored throughout the response. In the case of dispersants this was considered particularly important as continued application must be based on an assessment that the dispersant is continuing to be effective and there remains a net environmental benefit in doing so.

Monitoring supported this decision making process. All aerial dispersant operations were supported by additional aerial surveillance. Observers were required to confirm that the dispersants were effective for each spray operation. Similarly, senior personnel on each of the dispersant spray vessels were required to make the same assessment for each spray run.

In addition to visual assessments a monitoring vessel employing a fluorometer (which measures fluorescent light in the water column as an indicator of whether oil is effectively being dispersed) and later water sampling was deployed to provide further confirmation.

A fluorometry team was deployed on two occasions to assess dispersant effectiveness. During the first deployment data indicated that relative oil concentrations had increased in the water column following dispersant application, but was not able to determine what those concentrations were. The second deployment employed a modified methodology but the quality

of information was not significantly improved. The results of this work are summarised in Operational Monitoring Study O2 – Monitoring of Oil Character, Fate and Effects, Report 03 Dispersant Treated Oil Distribution.²⁰

Two general conclusions have been drawn:

- Visual monitoring was the most reliable method of assessing dispersant effectiveness; and
- The use of fluorometry and water sampling for assessment dispersant effectiveness needs further consideration with a view to improving the information available.

Evaluating immediate environmental impacts

One of the primary objectives of any oil spill response is to minimise impacts upon the environment. Identifying the presence/absence of wildlife and other environmental resources is an important part of the decision making process. Response plans and operational instructions required aerial and vessel based responders to report all wildlife (oiled or otherwise). These reports were included in daily situation reports, collated with similar reporting from PTTEP vessels and provided to DEWHA.

AMSA commissioned biopsies through Curtin University of dead fish and a sea snake recovered by fishermen in the area of the spill (see below). This was considered important to develop an understanding of what species were being immediately affected by the spill and to determine whether response strategies could be adjusted to reduce these impacts.

Summary

AMSA believes that the operational monitoring implemented for the response was both adequate and effective. Where possible, AMSA sought to build a picture through multiple sources of information, rather than reliance on a single source.

AMSA acted promptly to ensure that it had a clear understanding of the movement and behaviour of the oil from the earliest stages of the response through:

- Rapid mobilisation of aerial surveillance; and
- Early requirement for the collection of oil samples for analysis.

AMSA maintained clear control of response actions and monitored their effectiveness. This enabled decisions to be re-evaluated and the correct response strategy to be implemented.

Public Reporting of the Operational Monitoring Programme

The outcomes of the operational monitoring have been regularly reported on the AMSA website in the form of incident updates and mapping of oil coverage.

Further to this AMSA commissioned a biopsy of sea-snake and fish specimens collected by a member of the public to determine cause of mortality. The reports were provided to DEWHA as the responsible department. DEWHA published the report on the fish specimens on its website.²¹

²⁰ http://www.amsa.gov.au/Marine_Environment_Protection/National_plan/Reports-Fact_Sheets-Brochures/Release/AMSA-Oil-Report-03P.pdf

²¹ Gagnon, M. (2009). Report on Biopsy Collections from the surrounds of the West Atlas Oil Leak – Fish Specimens. <http://www.environment.gov.au/coasts/publications/pubs/montara-fish-report.pdf>

Further action regarding the operational monitoring

The operational monitoring programme ceased with the stand-down of aerial surveillance operations on 29 November 2009. This is consistent with the National Plan guidelines described above.

The methods and outcomes of the operational monitoring are being collated into five reports:

- Operational Monitoring Study O2 – Monitoring of Oil Character and Weathering, Report 01.
- Operational Monitoring Study O2 – Monitoring of Oil Character, Fate and Effects, Report 02 Water Quality.
- Operational Monitoring Study O2 – Monitoring of Oil Character, Fate and Effects, Report 03 Dispersant Treated Oil Distribution.
- Operational Monitoring Study O2 – Monitoring of Oil Character, Fate and Effects, Report 04 Oil Character and Weathering: laboratory Report
- Operational Monitoring Study O2 – Monitoring of Oil Character, Fate and Effects, Report 05 Potential Shoreline Impact: Presence and Character of Oil.

Reports 1 and 3 have been published on the AMSA web site.²² The remaining reports will also be published on the AMSA web site when completed. It is AMSA's intention to review the reports in detail to identify any potential areas of improvement for future operations.

5. Funding Arrangements

The Government established AMSA as a statutory authority with the purpose of improving the efficiency of delivery of services related to maritime safety and protection of the marine environment from ship-sourced pollution. AMSA funds its services primarily through levies on the shipping industry, supplemented by specific user fees and charges for services to individual ships or persons.

The National Plan is funded by a levy applied by the Commonwealth Protection of the Sea (Shipping Levy) Act 1981 and the Protection of the Sea (Shipping Levy Collection) Act 1981. Since 2007-08, the levy also has funded the National Maritime Emergency Response Arrangements (NEMERA), which involves AMSA managing contracts for provision of emergency towage vessels and coordinating emergency response to a ship casualty involving the risk of significant pollution.

The National Plan administration comes within the Australian Transport Council (ATC) framework with the National Plan Management Committee reporting through the Australian Maritime Group to ATC Ministers.

The Inter-Governmental Agreement includes the financial arrangements underpinning the National Plan's cooperative arrangements for responding to ship sourced pollution.²³

In relation to recovery of the cost of responding to a ship-sourced pollution incident, the IGA provides:

“Agencies responding to and incurring costs in relation to pollution incidents where the polluter is not identified, or costs are not recoverable, will be reimbursed by AMSA on the basis of the potential polluter pays, as set out in paragraphs 22 to 29 of Schedule 1 to this Agreement.”

²² http://www.amsa.gov.au/Marine_Environment_Protection/National_plan/Reports-Fact_Sheets-Brochures/index.asp

²³ Schedule 2

AMSA uses the Protection of the Sea Levy (PSL) to support the National Plan's pollution planning and response capabilities, including training response personnel, maintaining stockpiles of response equipment and conducting regular exercises testing the effectiveness of the National Plan arrangements – i.e. the proceeds of the PSL levy are normally used to maintain the capability to respond to pollution incidents, with actual response costs recovered from the polluter. Where the polluting vessel cannot be identified, or the limit of the vessel owner's statutory liability has been exceeded, the costs in question fall back on to AMSA which must then go to the shipping industry for the funds in question. The aim of the National Plan funding via the PSL is to break even over time and the levy has not been used to generate a large surplus to provide a capacity to meet the costs involved with responding to a major pollution incident. The National Plan annual report for 2007-08 showed an operating surplus of \$631,000 in 2007-08, in line with its 'break even over time' policy.

Part of the PSL is intended to allow the Government to recover its costs following any oil or chemical spill from ships when such costs cannot be fully recovered from the polluter. The recovery of costs in relation to an oil spill from a platform is less clear.

Montara incident response funding

As the PSL is closely targeted for specific ship-sourced pollution prevention and response purposes, on 21 August AMSA sought and was provided with written confirmation from PTTEP Australasia that it would be responsible for all costs in relation to the oil spill response. The company also agreed to provide such payments in advance to AMSA to cover costs already incurred and to provide a fund to support on-going response operations. As at 7 December 2009, AMSA had received \$6.344 million in cost recovery from PTTEP Australasia following submission of five separate claims, with a further claim totalling \$1.8 million being prepared.

Discussion

As indicated above, the National Plan is funded by a levy placed on commercial shipping using Australian ports. There is therefore no direct contribution by the offshore industry to the costs of maintaining Australia's national pollution response capability, which in 2007/2008 amounted to some \$5 million. In this context, the incident raises two issues that it is expected will be considered during a proposed review of the National Plan to commence in mid 2010.

Firstly, while PTTEP Australasia quickly accepted full financial responsibility for the National Plan response, a question arises as to the position regarding cost recovery if a different company was involved that did not act as quickly to accept responsibility. Some form of financial undertaking would have been needed for AMSA to ensure that ultimately the costs of responding to a spill from the offshore industry were not passed to the commercial shipping sector.

Secondly, it must be recognised that there is an indirect contribution from companies such as PTTEP as contributors to the Australian Marine Oil Spill Centre (AMOSC) in Geelong which – as indicated above – is a subsidiary of AIP and a key component of the National Plan. Consideration then needs to be given to the question of whether this contribution adequately reflects the risk of an oil spill from the offshore sector, the relationship between AIP and the Australian Petroleum Production and Exploration Association in terms of the management and operation of AMOSC, and also to the extent to which there are companies involved in the sector operating in Australia that are not contributors to AMOSC, either directly or indirectly.

National Plan Incident Analysis

Under the National Plan arrangements, an analysis of the oil spill response is undertaken following each major incident.

Accordingly, an Incident Analysis Team will analyse the management of the response to the Montara incident from the oil pollution preparedness / response perspective and make recommendations to improve the National Plan arrangements and how the actual response might be improved upon for future reference.

A draft report and any recommendations will be presented to the National Plan Management Committee (NPMC), most likely at its next regular meeting in March/April 2010.

The Terms of Reference for this Incident Analysis can be found at Appendix 9.

The Incident Analysis Team has an independent Chair, Mr Bruce Gemmell, and includes representatives from:

- Australian Maritime Safety Authority;
- Department of the Environment, Water, Heritage and the Arts;
- Department of Resources, Energy and Tourism;
- Australian Institute of Petroleum; and
- Department of Transport (WA).

Appendix 1

National Plan Equipment and Dispersants

Equipment broken down into 5 major categories.

- Containment – Oil Containment boom. Self Buoyant Curtain, Fence Boom, Self Inflating, Mechanically Inflated, Shoreline Protection, Sweep systems.
- Recovery - Oil Recovery Skimmers.
- Storage - Towable, and Shore based temporary.
- Dispersant Application – Helicopter spray buckets, boat spray systems, dispersant pumps.
- Ancillary - Vessels, Decontamination stations, generators, pressure washers, pumps, anchors, etc.

Boom Figures: Total of 24,898m (24.90Km of boom)

Off shore boom - 9 sets of 600m totalling 5400m. Each set consists of three 200m reels of boom, hydraulic power pack, ancillary kit, and repair kit. Each set is stored in two twenty foot curtain sided shipping containers and weigh in excess of 14 tonnes not including the shipping container..

Self buoyant curtain boom - Various manufacturers. 1700m supplied in 20m lengths.

Fence Boom – Various manufacturers. 9075m, supplied in 15 or 20m lengths

Self Inflating Boom – Various Manufacturers. 7465m, supplied in 20 or 25m lengths.

Mechanically Inflated – Various Manufacturers, 818m

Shoreline Protection Boom – Various Manufacturers mainly Structurflex. 4540m

Sweep Systems – Various Manufacturers 6 complete systems.

Recovery Devices:

55 oil recovery skimmers. Capably of recovering light to heavy oils and oily emulsions

8 Oil Recovery vessels.

Storage Devices:

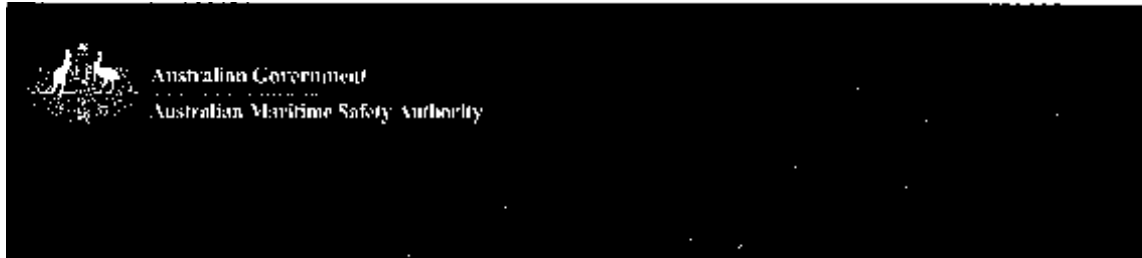
Towable – 26 towable Storage bags with a combined capacity of 537 Metric Tonnes (537,000lt). Will increase to 867 Metric Tonnes (867,000lt) under current contract.

Temporary – 47 temporary storage devices with a combined capacity of 180 Metric Tonnes (180,000lt)

Dispersant Application: 13 Helicopter spray buckets, 22 dispersant transfer pumps (including 9 fixed wing pumps), 45 dispersant boat spray systems. 395,000 litres of dispersant (prior to Montara incident).

Appendix 2

Correspondence – Transfer of Combat Agency



22 August 2009

Mr Andy Jacob
PTTEP

Dear Mr Jacob

TRANSFER OF COMBAT AGENCY

I confirm that you have requested AMSA to take control of the oil spill response relating to the incident involving the West Atlas as contained in your email dated Friday, 21 August 2008 7:48PM.

In accordance with the National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances, AMSA assumes the Combat Agency.

Contact details for AMSA are as follows and also as advised in emails to PTTTEP:

Rescue Co-ordination Centre (24 hours)
Telephone 1800 641792 (02) 82308811
Facsimile (02) 52306868.
Attention: Deputy Chief Executive Officer Maritime Standards Division.

Yours sincerely

Gary Prosser
DEPUTY CHIEF EXECUTIVE OFFICER
MARITIME STANDARDS DIVISION

Level 4, 25 Constitution Avenue, Canberra ACT 2601
GPO Box 2187, Canberra ACT 2601
p 02 6279 5050
f 02 6279 5026
e gary.prosser@amsa.gov.au



www.amsa.gov.au

Appendix 3

Pollution events from offshore petroleum operations - Combat Agency Transfer Operational Protocol

Purpose

This Protocol is an informal arrangement endorsed by the Environmental Assessors Forum and the National Plan Operations Group to set out the process for transferring Combat Agency responsibility following a pollution event from an offshore petroleum operation.

This Protocol does not:

- apply to the normal provision of assistance or advice where Combat Agency responsibility does not change;
- have any funding implications;
- affect the formal National Plan arrangements in respect of such matters; or
- have any legal effect.

Definitions

“Coastal Waters” – waters within 3 nautical miles seaward of the territorial sea baselines.

“Combat Agency” - the agency having operational responsibility in accordance with the relevant contingency plan to take action to respond to an oil and/or chemical spill in the marine environment.

“Designated Authority” – Relevant State/NT government agency responsible for the day to day administration of the Offshore Petroleum Act 2006.

“Inter-Governmental Agreement” – Inter-Governmental Agreement on the National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances (IGA)

“National Plan” – National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances.

“Offshore Petroleum Operation” – means an operation governed by the Offshore Petroleum Act 2006.

“Statutory Agency” - the State/NT or Commonwealth agency having statutory authority for marine pollution matters in their area of jurisdiction.

“State/NT National Plan Agency” – Relevant State/NT government agency responsible for the day to day administrations of the National Plan.

Introduction

The National Plan is a national integrated government and industry organisational framework enabling effective response to marine pollution incidents. The Australian Maritime Safety Authority (AMSA) manages the National Plan, working with the State/NT governments and the shipping, oil,

exploration and chemical industries, emergency services and fire brigades to maximise Australia's marine pollution response capability.

The National Plan is based on an Inter-Governmental Agreement between the Commonwealth and States NT, which defines the roles and responsibilities of the various stakeholders, primarily by reference to "Statutory Agencies" and "Combat Agencies".

In accordance with the Offshore Petroleum Act 2006, relevant State/NT offshore petroleum legislation, and the IGA, the Statutory Agency for pollution events from offshore petroleum operations is the "Designated Authority" under the Offshore Petroleum Act 2006 in that State or Territory. This applies for spills both within and outside coastal waters.

The "Combat Agency" for such pollution events, both within and outside coastal waters, is the relevant oil company with assistance, as required, from the Statutory Agency.

Transfer of "Combat Agency" Role

In the event of a pollution event from an offshore petroleum operation, the relevant oil company, as Combat Agency, will as soon as possible undertake preventive and clean up action. In most circumstances, pollution events are relatively minor and no outside assistance is required.

However, the Inter-Governmental Agreement provides for the Combat Agency role to be transferred in two circumstances:

- (1) The Combat Agency may request another agency to act on its behalf; or
- (2) In circumstances where the incident has exceeded or is likely to exceed the capacity of the Combat Agency to respond effectively or the response is not being conducted effectively, the Statutory Agency (in this case, the Designated Authority) may assume control of the response.

(1) Request for another agency to assume Combat Agency Role

This is likely to be the most common circumstance in which the Combat Agency role is transferred, and will arise where the relevant oil company considers a pollution event is beyond its response capabilities. Reasons might include the size of the spill and/or the location of the necessary response activity.

For pollution events within coastal waters, the relevant oil company may request the State/NT National Plan Agency to act on its behalf. The response will then be carried out in accordance with the relevant State/NT contingency plan.

For pollution events outside coastal waters, the relevant oil company may request AMSA to act on its behalf. The response will then be carried out in accordance with the National Marine Oil Spill Contingency Plan.

The transfer of Combat Agency role to either the State/NT National Plan Agency or AMSA should be undertaken:

- As soon as practicable once a decision is taken by the relevant oil company that the Combat Agency role is to be transferred;

- By telephone with confirmation in writing by facsimile. A copy of the facsimile is also to be sent to the relevant Designated Authority.

Contact details and arrangements for responding to pollution events in coastal waters will be provided in the relevant company and State/NT contingency plans. Contact details for AMSA are as follows:

Rescue Co-ordination Centre (24 hours)
 Telephone 1800 641792 (02) 62306811
 Facsimile (02) 62306868.
 Attention: Manager Environment Protection Response.

The party assuming Combat Agency responsibility will keep the Designated Authority informed of progress with the response, for example by inclusion in circulation of Situation Reports (SITREPS).

(2) *Statutory Authority assumes control*

This is likely to be less common, and may arise when the Designated Authority determines that the relevant oil company will not be able to respond or is not responding effectively. While the Designated Authority may assume control, in practice it will immediately pass Combat Agency responsibility to:

- the State/NT National Plan Agency for pollution events within coastal waters; or
- AMSA for pollution events outside coastal waters.

The transfer of Combat Agency role to either the State/NT National Plan Agency or AMSA should:

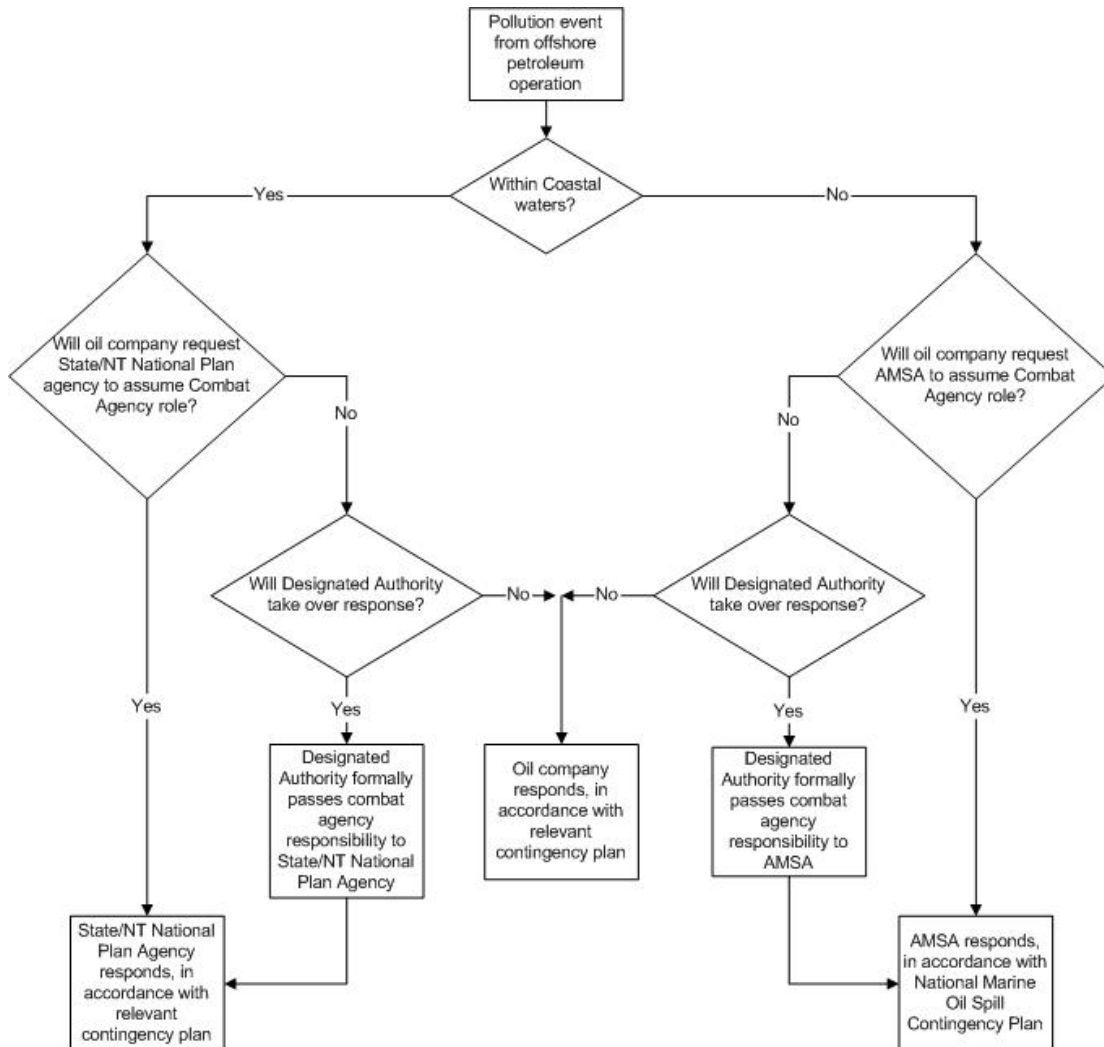
- Be undertaken as soon as practicable; and
- Be communicated by telephone with confirmation in writing by facsimile.

Implementation and Review

To give effect to the operation of this Operational Protocol the respective agencies should notify other interested agencies within their jurisdictions of this Operational Protocol and its intent.

A review of the implementation of this Operational Protocol will be undertaken at the request of either the Environmental Assessors Forum or the National Plan Operations Group.

Combat Agency Transfer Operational Protocol - Flowchart



Appendix 5

Senate Estimates Committee - 20 October 2009
OPENING STATEMENT AMSA CEO
Graham Peachey

The Australian Maritime Safety Authority (AMSA) is Australia's national maritime safety agency with responsibility for:

- Maritime safety
- Protection of the marine environment and
- Aviation and marine search and rescue.

We also have strong and influential role internationally. We are active in the IMO Council and the IMO Assembly as well as its numerous subsidiary committees.

Much of AMSA's current domestic focus is on the Montara wellhead oil leak.

Our response to this has come under the National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances.

The Plan creates the capability for a nationally integrated government and industry response. It brings together a high level of commitment across all levels of government and industry. It has many parts including;

- The National Marine Oil and Chemical Spill Contingency Plans;
- Detailed state, local and industry contingency plans;
- Strategically positioned response equipment; and
- A comprehensive national training program, including the conduct of regular exercises.

Response measures to the Montara wellhead incident have been in place since the uncontrolled release began on 21 August.

We took the reins when the Company (PTTEP Australasia (Ashmore Cartier Pty Ltd) handed over responsibility on the first day - consistent with requirements under the National Plan. Since then we have managed the 'clean up' operations and coordinated all activities associated with the oil leak.

This has involved:

- Daily contact with all relevant agencies across government involved;
- Daily contact with the Company concerned;
- Daily assessment of the situation and the development and implementation of the daily tasking and operations that followed
- Publishing reports on our website every couple of days; and
- Extensive media activity to ensure the public interest is addressed.

Operations over the past two months have included:

- Daily observation flights to monitor movement of the oil and to target vessel operations;

- Spraying dispersants on heavier concentrations of oil by both aircraft and surface vessels to enhance the natural degradation process;
- Containment and recovery operations using booms and skimmers;
- Testing the oil to establish the likely effectiveness of dispersants;
- Using a fluorometer to verify the effectiveness of the dispersant (measures fluorescent light in the water column to assess whether the oil is effectively being dispersed);
- Using an ultra violet infrared line scanner (on our Dornier) to identify oil on the surface that would not otherwise be visible to the naked eye;
- Undertaking oil trajectory modelling;
- Undertaking gas plume modelling to work out the safe area of operations;
- Using satellite tracking buoys to track the oil;
- Using satellite imagery to help verify the extent of the slick; and
- Consulting with our international colleagues;

We have taken a measured and a graduated response, proportionate to the risks:

- We initially brought in a Hercules aircraft from Singapore to apply dispersant to the oil;
- We then used 'air tractor' aircraft – they are obviously smaller and far more agile, better able to target the oil as it broke up;
- We then brought in vessels to spray the oil; and
- This was followed by extensive containment and recovery operations from vessels in the vicinity of the spill.

Our initial response to the incident was timely and careful.

On the first day we;

- Activated the National Oil Response Team;
- Conducted our own in house oil trajectory modelling;
- Dropped two satellite tracking buoys into the oil ;
- Held discussion with counterparts in other agencies to assess the availability of assets we would require;
- Activated our fixed wing aerial dispersant contractor and deployed two dispersant aircraft and a Manager to the closest aerodrome (Truscott);
- Deployed AMSA personnel to Truscott and to Darwin;
- Sought a liaison officer from the Company to work with us in Canberra;
- Explored additional aerial dispersant aircraft from regional sources;
- Held discussions with the Truscott aerodrome operator ;
- Briefed counterparts in WA;
- Organised, with the Company, the deployment of a modified Hercules C-130 aircraft capable of high capacity dispersant operations from Singapore;
- Established a working group to support our coordination activities across government; and
- We placed a statement on our website.

Throughout all this we have worked closely with other relevant Commonwealth and state agencies. We have had support from all States and the Northern Territory in providing trained and experience personnel to fill various roles, and they include:

- Work on board response vessels;

- Work on surveillance aircraft ;
- Logistics support; and
- Incident management.

They have done the ‘hard yards’. It has been done very well under extraordinary circumstances. There have been long shifts for everyone. Those on the vessels applying the dispersants (for example) have been working in 50 degree temperatures – while fully kitted out in their protective clothing; It has been very taxing for all concerned.

Dispersant and equipment has been brought in from several of AMSA major equipment stockpiles around the Australian coast. We have received strong support from the Australian Marine Oil Spill Centre, based in Geelong, and the Oil Spill Response Company based in Singapore. Personnel from Maritime New Zealand have also provided assistance in management roles.

To date:

- some 17 vessels and 9 aircraft have been involved in these operations
- there are currently around 300 people working offshore in the area affected and at the support bases at Truscott in the Kimberley and Darwin

Also to date some 437,000 litres of oil/water mix has been recovered during the containment operations of which an estimated 260,500 litres is oil.

This is the first time we have had to respond to a significant oil spill this far off shore - and for this length of time. I believe it I the first time such an operation has been conducted anywhere. Our work has drawn international attention.

Senators, given the particular responsibilities we have, I would respectfully suggest that questions relating to stopping the spill, contingency planning and the inquiry are best directed to the Department of Resources, Energy and Tourism.

Questions regarding the wildlife response, environmental monitoring and environmental regulation are appropriately handled by the Department of the Environment, Water, Heritage and the Arts.

While our focus in recent weeks has been on the Timor Sea, AMSA remains actively engaged on a number of other matters of key interest and concern to Australia’s maritime industry.

These matters include for example:

- Assisting with reforms to the maritime sector – including the establishment of a national maritime jurisdiction and the rewrite of the Navigation Act;
- Improving safety of navigation and protection of the marine environment through better regulation of pilotage services and a new under-keel clearance system to be put in place in the Torres Strait;
- Working with the shipping industry, unions and academic institutions to address the problems of training and skill shortages;
- Maintaining the standard and efficiency of Australia’s port state inspections to ensure safe and secure shipping in Australian waters.
- Being actively engaged in the IMO to ensure our interests in international shipping are heard and acted on.

Our work covers a wide range of issues.

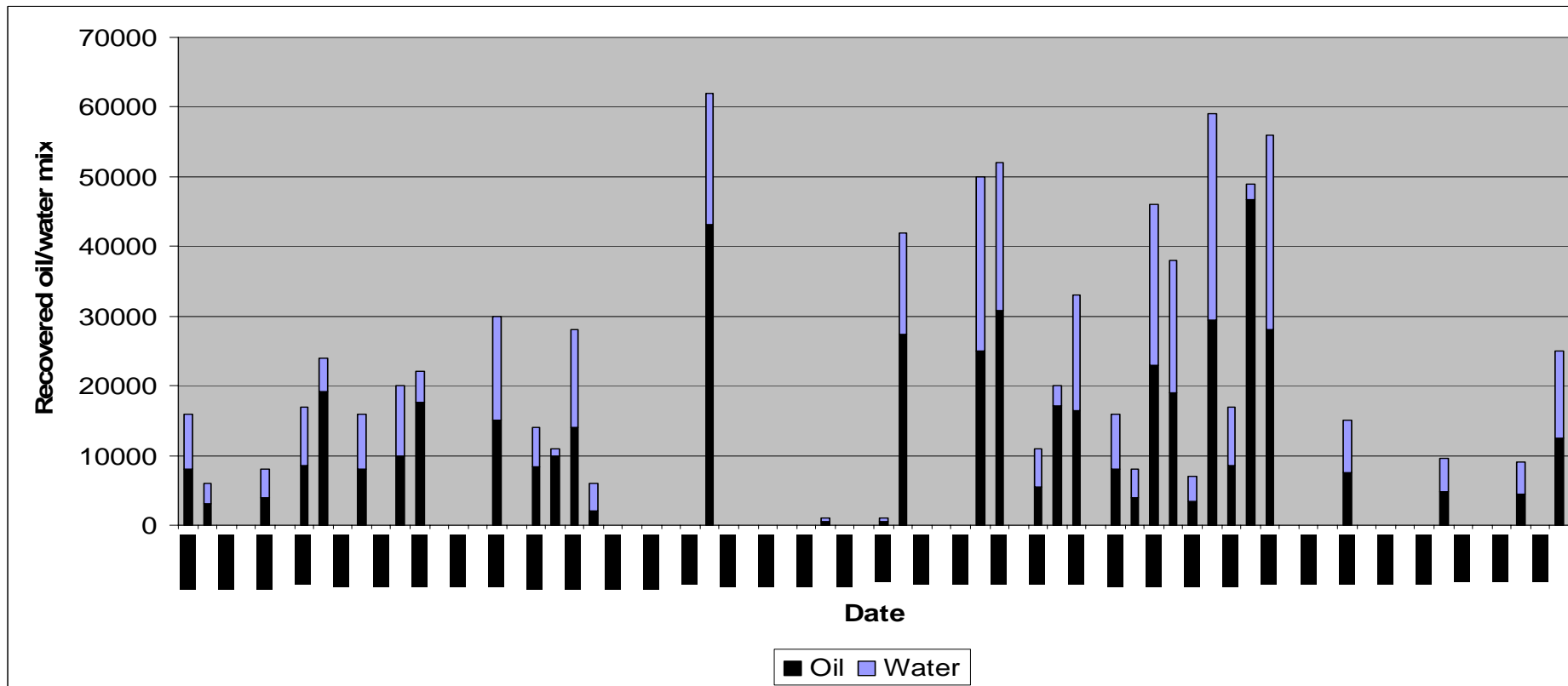
Thankyou

Appendix 5

Montara well head platform – Recovered oil/water summary

Notes:

Estimates only. Where no specific oil/water mix ratio was reported, a ratio of 50:50 has been applied.



Appendix 6

Assets/Resources Used

Assets deployed during the response included:

Aircraft

- AMSA Dornier aircraft – deployed from Darwin to provide top cover, observations and tactical direction. Aircraft fitted with UV/IR equipment to conduct detailed assessment of oil
- King Air aircraft – Observation flights.
- Cessna Conquest – Observation flights as required.
- Air Tractor – 2 Dispersant spraying aircraft contracted from AMR, conduct spraying, directed by the Dornier.

Vessels

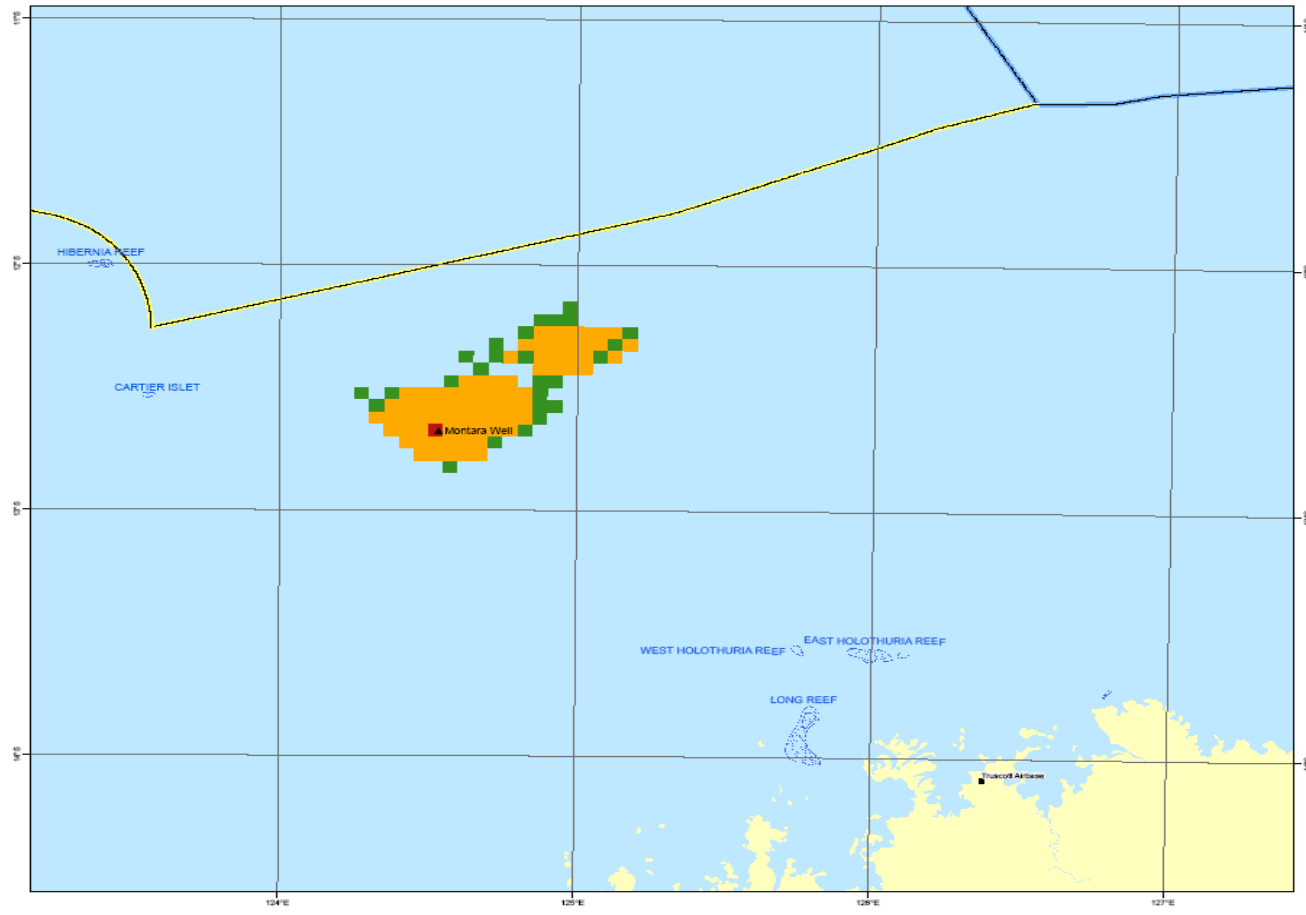
- *Lady Gerda* – Containment and recovery operations, dispersant spraying.
- *Lady Valisia* – Containment and recovery operations.
- *Pacific Battler* - Containment and recovery operations.
- *Pacific Protector* – Containment and recovery operations.
- *Nor Capitan* - Containment and recovery operations.
- *Lady Christine* – Containment and recovery operations.
- *Calypso Star* – Catamaran chartered by PTTEP, conducted dispersant spraying.
- *First Class* – Containment and recovery operations, dispersant spraying.

Personnel

- National Response Team Members (43) – Assigned to rostered duties undertaking a range of roles.
- Wildlife Management Team – on site at Ashmore Reef providing initial treatment to any oil affected wildlife found.
- Maritime Safety New Zealand – three personnel provided in accordance with Memorandum of Arrangement between Australian Maritime Safety Authority and Maritime New Zealand on Oil Pollution Preparedness and Response
- Personnel from the Australian Marine Oil Spill Centre (Geelong) and Oil Spill Response (Singapore)

Appendix 7

Montara Well Observed Oil Extent



This image does not represent the extent of any oil slick observed at any time during the oil spill. It is a graphic representation of the area within which isolated patches of oil and/or sheen were observed by surveillance aircraft on 130 separate flights between 21 August 2009 and 28 November 2009.

Natural phenomena such as algal blooms and coral spawn with an appearance very similar to oil were regularly reported throughout the area during the surveillance operations, and may have had some impact on the accuracy of this data.

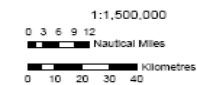
Extent of Main Map



Legend

- Indonesian Delimitation Line 1997
- Joint Petroleum Development Area
- Oil Observation Frequency**
- 10%
- 10% - 25%
- > 25%

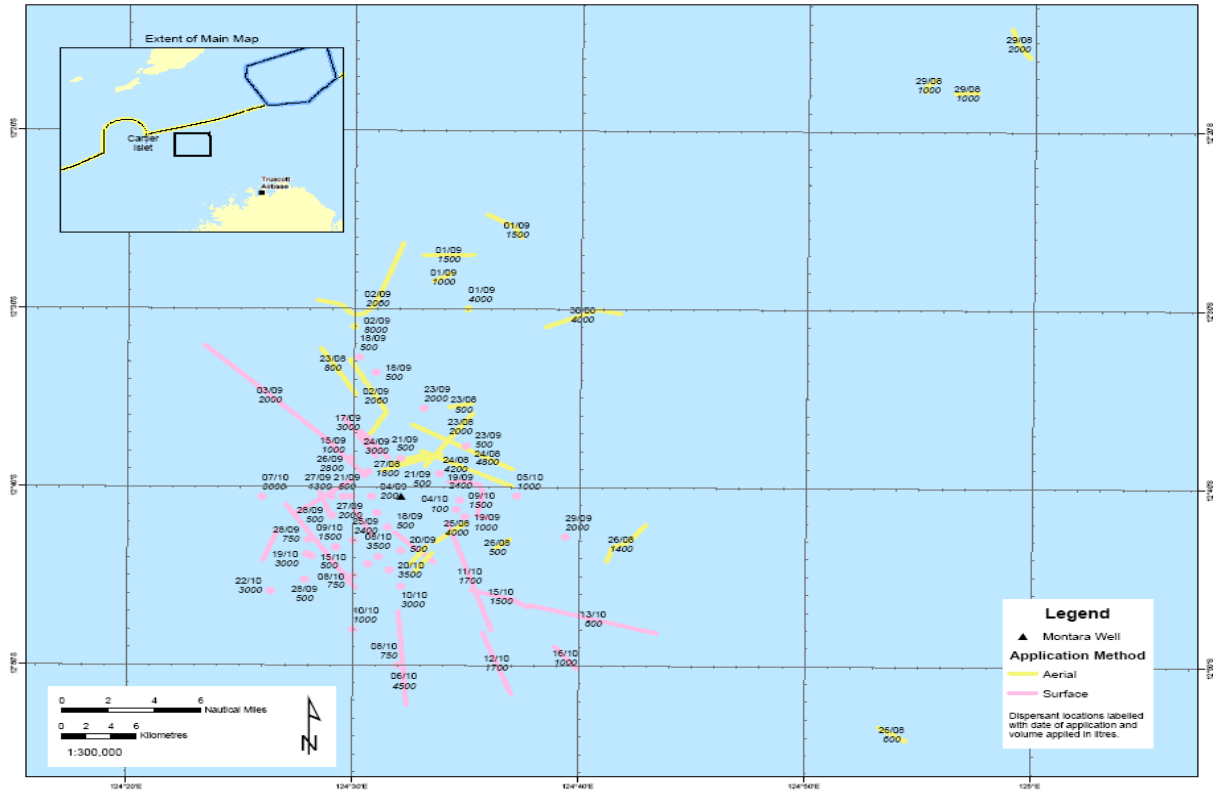
Oil observation frequency describes the number of times oil and/or sheen was observed on the 130 separate surveillance flights undertaken between 21 August 2009 and 28 November 2009.



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Appendix 8

Montara Well Dispersant Application



Dispersant locations and volumes compiled from the daily situation reports issued by the Manager, Environment Protection, AMSA and also the daily reports provided by the Masters of the ships performing oil recovery and dispersal operations.

Date	Volume (L)
23/08/2009	3300
24/08/2009	9000
25/08/2009	5000
26/08/2009	4000
27/08/2009	3600
28/08/2009	0
29/08/2009	4000
30/08/2009	4000
31/08/2009	0
01/09/2009	9000
02/09/2009	14100
03/09/2009	5000
04/09/2009	500
05/09/2009	0
06/09/2009	0
07/09/2009	0
08/09/2009	0
09/09/2009	500
10/09/2009	0
11/09/2009	2400
12/09/2009	2500
13/09/2009	500
14/09/2009	11000
15/09/2009	1000
16/09/2009	0
17/09/2009	5000
18/09/2009	1300
19/09/2009	3400
20/09/2009	1000
21/09/2009	1500
22/09/2009	0
23/09/2009	2300
24/09/2009	5500
25/09/2009	5400
26/09/2009	2800
27/09/2009	3300
28/09/2009	3250
29/09/2009	2000
30/09/2009	0
01/10/2009	7200
02/10/2009	0
03/10/2009	2000
04/10/2009	100
05/10/2009	1000
06/10/2009	4300
07/10/2009	3000
08/10/2009	5000
09/10/2009	3000
10/10/2009	4000
11/10/2009	1700
12/10/2009	1700
13/10/2009	500
14/10/2009	0
15/10/2009	2000
16/10/2009	1000
17/10/2009	0
18/10/2009	0
19/10/2009	3000
20/10/2009	3500
21/10/2009	0
22/10/2009	3000
Grand Total	140620



Appendix 9

Terms of Reference for the National Plan Incident Analysis

Aim: To undertake a comprehensive analysis of the response to the oil discharged from the Montara Wellhead Platform into the Timor Sea off Western Australia on 21 August 2009 (the 'Montara Wellhead Platform incident'), as provided for under the National Plan Inter-Governmental Agreement.

Incident Analysis Team: The incident analysis team is to comprise persons with appropriate expertise particularly in response to marine pollution incidents sourced from ships and offshore production facilities and related matters, but who had no direct role in the response to the Montara Wellhead Platform incident. Members of the Incident Analysis Team are:

- Mr Bruce Gemmell (Chair) – Principal, Consultant;
- Mr Paul Nelson – Manager, Environment Protection, Australian Maritime Safety Authority;
- Captain David Heppingstone – Manager, Safety Operations, WA Department of Transport;
- Mr Chris Michel – Policy Officer, Department of Resources, Energy & Tourism;
- Ms Lesley Dowling – Manager, Fuel & Used Oil Policy Section, DEHWA;
- Mr Ron Reinten – Manager, Safety, Health, Environment & Security, ExxonMobil; and,
- Mr John Gillies (Executive Officer) – Australian Maritime Safety Authority.

Terms of Reference: Analyse the management of the incident from the oil pollution preparedness / response perspective and provide strategic recommendations for improvements to the National Plan arrangements and how the actual response to the Montara Wellhead Platform incident might be improved upon for future reference. Any operational or technical recommendations should be conveyed to the National Plan Operations Group for consideration.

In this context:

1. Assess the oil pollution response aspects with particular reference to:
 - i. the call out procedures used, the effectiveness and timeliness of the initial and subsequent response;
 - ii. the process for the affected Company passing combat agency responsibility to the Designated Authority and subsequently to AMSA;
 - iii. the suitability and accessibility of National Plan equipment including State and industry equipment;
 - iv. availability, timeliness and management of the National Response Team arrangements;
 - v. the decisions made in respect of calls for equipment and personnel in regard effectiveness, sufficiency and timeliness;
 - vi. the decision regarding the use of dispersant including the selection of dispersant type and delivery mode;
 - vii. the adequacy and effectiveness of environmental input, including wildlife rescue and rehabilitation response;

- viii. the adequacy and effectiveness of incident response plans and their implementation including the Oil Spill Response Incident Control System (OSRICS);
 - ix. the adequacy of the management of Occupational Health and Safety issues;
 - x. the adequacy of the administrative support, environmental advice and support, and other related activities;
 - xi. the interaction with the media and other interested parties; and,
 - xii. the adequacy and effectiveness of communications with affected and interested stakeholders.
2. Assess the involvement of the various parties to the response from the viewpoint of the response strategies and decisions made by parties to the spill event and their timeliness and adequacy. In this regard, particular attention should be given to:
 - i. the effectiveness of the involvement of the parties; and,
 - ii. the interaction and cooperation between agencies and other parties.
 3. Review the effectiveness of Australia's current spill response regime pertaining to marine pollution incidents sourced from offshore production facilities including the funding arrangements to meet preparedness and response requirements and the potential for improved integration of offshore industry into the National Plan.

As far as is practicable, the incident analysis team or member(s) thereof should attend the various debriefing sessions to be carried out by relevant agencies and bodies involved in the incident and consider the written reports of the various entities in the response.

Administrative support for the Incident Analysis Team will be provided by AMSA.

A written report on the findings and recommendations of the incident analysis is to be submitted to the Australian Maritime Safety Authority by 26 February 2010.

Brad Groves
A/g Deputy Chief Executive Officer
Maritime Standards Division
Australian Maritime Safety Authority

4 December 2009