

Response to the *Montara Wellhead Platform Incident*

**Report of the
Incident Analysis Team
March 2010**



Australian Government

Australian Maritime Safety Authority

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Report by the Incident Analysis Team into the
Response by the National Plan to Combat Pollution of the Sea by Oil
and Other Noxious and Hazardous Substances,
to the Montara Wellhead Platform Incident.

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ABBREVIATIONS AND ACRONYMS

AEST	Australian Eastern Standard Time
AFMA	Australian Fisheries Management Authority
AIP	Australian Institute of Petroleum
AMOSC	Australian Marine Oil Spill Centre
AMR	Australian Maritime Resources
AMSA	Australian Maritime Safety Authority
AWST	Australian Western Standard Time
Coordination Group	Inter Government group and PTTEP Australasia (Ashmore Cartier) Proprietary Limited, which met regularly during the incident to coordinate the response
CSTM	Chemical Spill Trajectory Modelling
Designated Authority	<p>The relevant State or Territory Minister and is responsible for the day-to-day administration of petroleum activities. Examples of Designated Authority administrative and regulatory activities include:</p> <ul style="list-style-type: none">▶ acceptance of Well Operations Management Plans;▶ collection of petroleum data; and,▶ acceptance of Environment Plans. <p>In practice, the power is delegated to government officials by the respective Minister.</p>
DEWHA	Department of Environment, Water, Heritage and the Arts
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ESC	Environment and Scientific Coordinator
GIS	Geographic Information System
GRN	Global Response Network
IAT	Incident Analysis Team
IC	Incident Controller
ICC	Incident Control Centre
ICT	Information and Communication Technology
IMT	Incident Management Team
Joint Authority	<p>Comprises the State or Territory Minister and the responsible Commonwealth Minister and is concerned with significant decisions arising under the legislation. Examples of significant decisions for the Joint Authority include:</p> <ul style="list-style-type: none">▶ determining areas to be open for applications for exploration permits;▶ granting and renewing exploration permits and production licences; and,▶ Determining permit or licence conditions governing the level of work or expenditure required. <p>In practice, the power is delegated to government officials by the respective Ministers.</p>

MCA The United Kingdom Marine and Coast Guard Agency

MPC Marine Pollution Controller

NRT National Response Team

National Contingency Plan National Marine Oil Spill Contingency Plan

National Plan National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances

NPOG National Plan Operations Group

NT Northern Territory

OPOL Offshore Pollution Liability Scheme – United Kingdom and some European countries

OPGGS Act Offshore Petroleum and Greenhouse Gas Storage Act 2006

OSCP Oil Spill Contingency Plan

OSR Oil Spill Response Company

OSRICS Oil Spill Response Incident Control System

OSTM Oil Spill Trajectory Modelling

PTTEP AA PTTEP Australasia (Ashmore Cartier) Proprietary Limited. The Australian company which operates the Montara Wellhead Platform

RCC Australia Rescue Coordination Centre Australia

RET Department of Resources, Energy and Tourism

SPILLCON International Oil Spill Prevention and Preparedness Conference – held every three years

TOR Terms of Reference

Type I monitoring Operational Monitoring

Type II monitoring Scientific Monitoring

UK United Kingdom

PREFACE

Introduction

This report is prepared consistent with usual arrangements under the National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances (the National Plan). The National Plan provides the opportunity to establish an Incident Analysis Team (IAT) to provide strategic recommendations for improvements to the National Plan arrangements and identify any lessons learned to improve future major incident responses. Mr Bruce Gemmell, a former Deputy Chief Executive and Chief Operating Officer of the Civil Aviation Safety Authority with experience in incident analysis, was engaged by the Australian Maritime Safety Authority (AMSA) as independent chair of the IAT.

Of the seven members of the IAT, three were involved in the Montara Wellhead Platform incident. This did not result in any problems for the IAT's analysis of this incident as all the members provided valuable knowledge and experience. Nevertheless, the IAT considers that the appropriate degree of independence of incident analysis teams is a matter that should be addressed in the wider review of the National Plan to be conducted later in 2010.

The Incident

At approximately 5.30 a.m. Australian Western Standard Time (AWST) (7.30 a.m. Australian Eastern Standard Time [AEST]) on Friday 21 August 2009, the Montara Wellhead Platform located 140 nautical miles (approximately 260 kilometres) offshore from the northwest Australian coast, had an uncontrolled release of hydrocarbons from one of the platform wells. Consequently oil escaped to the surface and gaseous hydrocarbons escaped into the atmosphere. The oil spill resulted in the activation of the National Plan, managed by AMSA.

The estimate provided by the operator, PTTEP Australasia (Ashmore Cartier) Proprietary Limited (PTTEP AA) was that 400 barrels (or approximately 64 tonnes) of crude oil were being lost per day. What followed was the longest and in many respects most complex oil spill response operation since the National Plan was established in 1973. The uncontrolled release continued until 3 November 2009 and response operations continued until 3 December 2009.

The Analysis

AMSA formed an IAT tasked with assessing the incident, from an oil spill response perspective, to assess the adequacy of the response and to identify any lessons that could be learnt by Australian responders. The Terms of Reference (TOR) and the members of the IAT are provided in Appendix 1.

The IAT attended a series of debriefings and meetings in Canberra, Melbourne and Perth with relevant groups and individuals. A list of debriefings and attendees is provided in Appendix 2.

The IAT was also provided with additional background information in the form of several reports commissioned by AMSA. The findings of these reports have been summarised and are attached as Appendix 3.

Overall Findings

Views expressed to the IAT indicate that overall the response to the Montara Wellhead Platform incident was highly effective. Comments from personnel involved with the response should be recognised, such as the following:

- ▶ one from an NRT member that in 15 years service as a policeman, he had:
“...not seen an incident as well managed as this.”
- ▶ and from PTTEP AA that the response was:
“...superb from everyone involved”.

All involved in the response demonstrated a “can-do” attitude and a willingness to work together to achieve the goal of preventing oil from impacting on sensitive marine resources, in particular the marine parks of Cartier and Ashmore Reefs, and the northwest coast of Western Australia. The existing relationships underlying and sustaining the National Plan, as well as the professionalism and outcome focus of those involved, were in the IAT’s view, the sustaining factors which underpinned a successful outcome in this incident. The IAT considers these relationships need to be maintained and nurtured in support of any future response.

There was universal recognition of the excellent support provided by PTTEP AA, particularly in areas such as provision of on-water response resources, financial support and monitoring programmes. Other highly effective aspects of the response, as expressed to the IAT during the various debriefs and meetings, included:

- ▶ the excellent aerial resources that were available and the work carried out by the aerial observers;
- ▶ activation and use of the National Plan Fixed Wing Aerial Dispersant Capability;
- ▶ comprehensive focus of Occupational Health and Safety;
- ▶ containment and recovery operations, particularly given the considerable distance offshore;
- ▶ timeliness and accuracy of trajectory modelling; and
- ▶ the timely and sustained technical advice and support provided by the broader petroleum industry through the Australian Marine Oil Spill Centre (AMOSC).

One of the National Response Team members summed up the situation by noting that:

“To go so well for so long we must have done a lot of things right.”

Nevertheless, as with any incident of this type, there are aspects of the response that, as indicated in the IAT’s TOR:

“...might be improved for future reference.”

The IAT has identified a number of issues that were raised during the post incident review. Each issue has been examined in detail using a range of available information sources to ascertain its relevance.

Based on this examination a series of conclusions and recommendations have been presented. The focus of this report is on strategic issues. A list of operational and technical issues to be presented to the National Plan Operations Group (NPOG) for consideration and necessary action forms Appendix 4.

The open response of the many individuals and organisations that provided information and made time available for interviews and discussion is appreciated by the IAT. The IAT has sought to ensure that a balanced view is presented in the discussion and findings of the report. The IAT commends the current approach to post incident analysis (including debriefs) undertaken by AMSA under the National Plan arrangements and strongly supports its continuation.

Any comments or criticisms in the Report should be read in a constructive sense. As with any analysis of an emergency incident it is important to ensure that the lessons learnt are used to improve preparedness and response arrangements in readiness for any future incidents.

This incident had many unique elements and any future events will have their own unique circumstances. However, the experience provided lessons that should assist AMSA in responding to future events, particularly where AMSA adopts the combat agency role. The IAT's recommendations were developed with this in mind.

Montara Coordination Group

The IAT commends AMSA for establishing a Co-ordination Group to co-ordinate activity and share information between Government Departments and PTTEP AA. This Group was chaired by the AMSA Executive and included:

- ▶ Department of Resources, Energy and Tourism (RET);
- ▶ Department of the Environment, Water, Heritage and the Arts (DEWHA);
- ▶ Department of the Prime Minister and Cabinet;
- ▶ Australian Fisheries Management Authority (AFMA);
- ▶ Department of Foreign Affairs and Trade;
- ▶ PTTEP AA; and
- ▶ AMOSC.

The Coordination Group met every weekday from 24 August until 9 November, and then generally every second weekday until the response was terminated on 3 December. This Group worked well with the parties involved expressing satisfaction with the Group's capacity to provide up-to-date information, to understand issues and coordinate actions. In discussions with PTTEP AA following the incident, the IAT noted the company's concern regarding their exclusion from some of these meetings. The IAT could see that there would be circumstances where it was necessary for Government Departments to discuss issues without PTTEP AA present. It would therefore, not be appropriate to suggest that PTTEP AA be represented at all meetings. The IAT noted the benefit to all parties from direct communications and this should be encouraged to the greatest extent possible.

Montara Commission of Inquiry

On 5 November 2009 the Minister for Resources and Energy established a Commission of Inquiry to report on the uncontrolled release of hydrocarbons at the Montara Wellhead Platform and subsequent events. The Inquiry is required to report by the end of June 2010 and is being undertaken pursuant to Part 9.10A of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGs Act) which relates to inquiries into significant offshore incidents.

While the TOR for the Montara Commission of Inquiry are significantly broader than just the oil spill response, the TOR include several matters relevant to AMSA and the National Plan, in particular:

- ▶ the adequacy of response requirements and the actual response to the incident; and
- ▶ the environmental impacts as a result of the incident, including reviewing environmental monitoring plans.

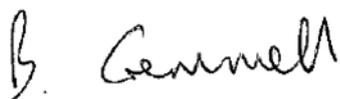
The IAT has noted the public submissions to the Montara Inquiry published on the Commissions website, particularly where reference has been made to the National Plan and the response to the uncontrolled release from the Montara Wellhead Platform. Relevant feedback has included:

- ▶ further clarification of stakeholders roles is required;
- ▶ suggestions for a more rapid and improved response;
- ▶ questions regarding the funding of spill response and the level of insurance required by offshore facilities;
- ▶ evaluation of the “Type I (operational) / Type II (scientific)” monitoring policy is required; and,
- ▶ questions concerning the response options, the use of dispersant and a perceived lack of publicly assessable supporting documentation relating to these issues.

These public submissions have been taken into account in preparing this Report.

National Plan Review

The IAT notes that a major review of the National Plan is scheduled to be undertaken this year. In developing its recommendations the IAT has assumed there are no major changes to the roles and responsibilities of each of the National Plan participants, particularly that of AMSA’s role. The IAT’s recommendations will need to be reviewed if significant changes to current arrangements are implemented following the review.



Bruce Gemmell
Chair - Incident Analysis Team
31/03/2010

EXECUTIVE SUMMARY

AMSA Response Arrangements

The structure of the response arrangements under the National Plan mean that, while AMSA has considerable experience in assisting major near-shore/shoreline spill responses within State/Northern Territory jurisdictions – the *Pacific Adventurer* response off the Queensland coast in March 2009 being a typical example - AMSA is rarely itself tasked with the role of combat agency for a major spill. The IAT noted a number of enhancements that could be made to AMSA's arrangements for dealing with such incidents. Issues such as having clear communication, authority and reporting arrangements, and when and how to establish the Incident Control Centre (ICC) at or near the location of the oil spill are issues that need to be clearly set out and exercised regularly. (Page 6)

Recommendation 1 – The Australian Maritime Safety Authority should review and update its existing internal procedures for oil and chemical spill response for major incidents in which the Authority is combat agency. Regular trials of the procedures should be undertaken (given live implementation is likely to be infrequent) and adjustments made as necessary.

AMSA Combat Agency Role

While AMSA has found itself in the role of combat agency for a major incident only three times in the 20 years since its establishment, AMSA needs access to expertise and experience to respond effectively to any incident for which it is the combat agency. (Page 10)

Recommendation 2 - The Incident Analysis Team recognises the challenges associated with using and maintaining skills over an extended period to implement a Contingency Plan that, in terms of the Australian Maritime Safety Authority's combat agency role, is used infrequently. Nevertheless, the Authority needs to consider all available options to ensure appropriate resourcing is available to effectively undertake its combat agency role.

Responsibility for Environmental Issues

Environment and Scientific Co-ordinators (ESC's) are appointed in each jurisdiction in Australia as part of the National Plan. The role of the ESC is to co-ordinate environmental input into response planning and decision making and to provide environmental and scientific advice and services to Incident Management Teams (IMT).

The IAT notes that a number of issues were raised regarding how the role of the ESC was undertaken, and considers that these issues emerged during this incident largely because the role of the ESC for oils spills in Commonwealth waters is not adequately explained in the National Oil Spill Contingency Plan (National Contingency Plan), is not specifically referred to in the Oil Spill Response Incident Control System (OSRICS) structure, and consequently is confusing in terms of where the position fits into a response.

The IAT considers that AMSA should liaise with other Commonwealth agencies, in particular the Department of Environment, Water, Heritage and the Arts to develop clear arrangements, to be set out in the National Contingency Plan and supporting documents and procedures as necessary, for how

the ESC role will be undertaken in future incidents where the Commonwealth, through AMSA, is the Combat Agency. (Page 11)

Recommendation 3 - In conjunction with the Department of Environment, Water, Heritage, and the Arts and other relevant Commonwealth agencies, the Australian Maritime Safety Authority should revise the National Marine Oil Spill Contingency Plan and the National Marine Chemical Spill Contingency Plan to develop a clear plan and delivery mechanism for the provision of environmental advice, preparation and maintenance of Net Environmental Benefit Analysis, wildlife response and monitoring for a spill where the Commonwealth is lead agency. This should also include a clear statement on sourcing Commonwealth environmental and scientific advice.

Cost Recovery Arrangements

While the National Plan stakeholders are aware of the comprehensive insurance and compensation arrangements in place with regard to oil spills from ships, there is a general lack of awareness of the arrangements with regard to cost recovery following incidents involving the offshore petroleum exploration and production industry. To enhance clarity for all stakeholders a review should be undertaken regarding industry arrangements and outcomes widely circulated. (Page 15)

Recommendation 4 – The Department of Resources, Energy and Tourism should, in conjunction with the Australian Maritime Safety Authority and the offshore petroleum, exploration and production industry, undertake a review of the legislative arrangements concerning insurance to ensure cost-recovery arrangements following oil spills are effective, and recommend any improvements considered necessary. Following this both agencies should jointly develop and distribute to National Plan participants information on arrangements for insurance and cost recovery for incidents involving the offshore petroleum exploration and production industry as envisaged by the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* and related arrangements.

The Australian Maritime Safety Authority Act

While AMSA considers that there is a good basis for its response to the Montara Wellhead Platform incident based on the width of AMSA's incidental functions, as provided in the *Australian Maritime Safety Authority Act 1990*, the IAT notes that there is nevertheless a lack of clarity regarding AMSA's authority to respond to oil spills from sources other than ships, and that this should be resolved as a matter of priority. (Page 17)

Recommendation 5 - As a priority, the Australian Government should resolve any ambiguity about the legislative powers in its administered legislation to respond to spills other than from ships and if so, take steps to rectify this situation.

Oil Spill Contingency Plans

The IAT notes there is currently no formal requirement or process for AMSA to be consulted when Oil Spill Contingency Plans (OSCP) are submitted to State, Territory and Commonwealth regulators for

approval. The IAT considers that RET should ensure that AMSA is involved in the formal consultation process. (Page 17)

Recommendation 6 – The Department of Resources, Energy and Tourism and where relevant the Department of the Environment, Water Heritage and the Arts should ensure that the Australian Maritime Safety Authority/State/Northern Territory and other agencies involved in the National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances be formally consulted in the assessment of Oil Spill Contingency Plans for offshore facilities prior to their approval.

Risk Assessment

Taking into account the extent of growth in oil and gas exploration and production and the growth in general shipping activity off the north west coast of Australia in recent years, the IAT considers it will be important to include a comprehensive risk assessment of these activities as part of the proposed National Plan Review to be undertaken in 2010. (Page 18)

Recommendation 7 – The Australian Maritime Safety Authority should ensure an assessment of the preparedness for oil spill response across Australia, with particular focus on the northwest coast, is incorporated in the proposed review of the National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances. This assessment of preparedness should be based on a formal risk assessment of the possibility of a major oil spill arising from all marine sources, with particular emphasis on the increased activity of the offshore petroleum exploration and production industry and other marine operators.

Use of Petroleum Industry Resources

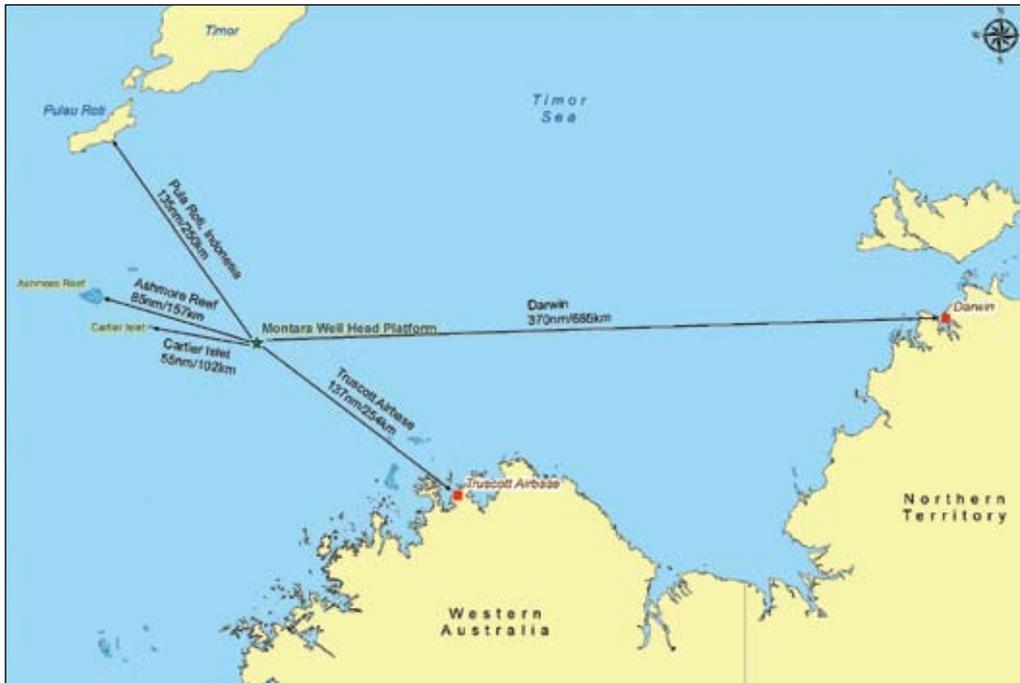
The IAT considers that for any future incident involving oil spills from the offshore petroleum exploration and production industry facilities, rather than calling primarily on National Response Team (NRT) members to fill the positions in the ICC/OSRICS structure, AMSA should instead rely more heavily on resources from within this industry (this may be experts from individual companies, AMOSC, OSR, etc.). This recognises the extensive expertise and resources from within both this industry and AMOSC and OSR (with associated international links), and better reflects the purpose for which the latter two organisations were established – i.e. specifically to respond to major oil spills.

This would also, in the view of the IAT, reduce the considerable demands placed on the NRT during protracted incidents such as the uncontrolled release from the Montara Wellhead Platform and better represent the arrangements between government and industry as set out in the National Plan. (Page 19)

Recommendation 8 – The Australian offshore petroleum exploration and production industry should be the primary option for resources (including personnel for an Incident Control Centre) when a spill from an offshore petroleum facility occurs. In the event that Australian Maritime Safety Authority is the Combat Agency, then the industry (including the Australian Marine Oil Spill Centre) should be more heavily relied on to provide appropriate leadership and other resources, with support under existing National Response Team arrangements as required.

1 INCIDENT DESCRIPTION

At approximately 5.30 a.m. AWST (7.30 a.m. AEST) on Friday 21 August 2009, the Montara Wellhead platform located 140 nautical miles (approximately 260 kilometres) offshore from the northwest Australian coast, had an uncontrolled release of hydrocarbons from one of the platform wells. Consequently oil escaped to the surface and gaseous hydrocarbons escaped into the atmosphere.



Initial statements from the operator, PTTEP AA, estimated that 400 barrels per day (or approximately 64 tonnes) of crude oil were released into the environment. It should be noted, however, that for safety reasons this estimate could not be confirmed at any time during the incident, nor was it possible to provide a more accurate assessment. The uncontrolled release continued until 3 November 2009 and the response operations continued until the well was capped on 3 December 2009 (105 days).

AMSA was advised of the uncontrolled release at approximately 10.00am AEST, and within 15 minutes implemented the National Plan. AMOSC, in Geelong, was advised by AMSA at 10.35am AEST.

Immediate response actions included deploying aircraft (including a Hercules C-130 aircraft from Singapore under the auspices of PTTEP AA/AMOSC), AMSA personnel and additional dispersant from AMOSC (initially approximately 50 tonnes) to supplement stocks at the AMSA Darwin equipment/dispersant stockpile.

At around 7.00pm AEST on the first day, the Northern Territory Designated Authority for the platform, the Department of Regional Development, Primary Industry, Fisheries and Resources, formally passed responsibility for the oil spill response up to AMSA, in accordance with agreed National Plan arrangements.

Over 130 surveillance flights were conducted throughout the duration of the operation, commencing on the first day of the incident. These flights gathered oil spill intelligence, environmental data, and directed the dispersant spraying aircraft and then subsequently the surface vessels undertaking dispersant spraying and offshore containment and recovery operations, to heavy concentrations of oil.



*Courtesy
PTTEP AA*

Throughout the incident, the majority of observed oil remained within 19 nautical miles (approximately 35 kilometres) of the platform with patches of sheen and weathered oil reported at various distances in different directions from the platform as wind, currents and seas and air temperatures varied. The calm conditions experienced during most of this period permitted offshore containment and recovery operations; however to some extent these conditions also hampered the natural breakup of the oil. Sheen was reported at Ashmore, Cartier and Hibernia Reefs by observers on board aircraft on several occasions, the only reports of potential impact on any reef were observations of wax pieces floating in the Ashmore Reef lagoon between 26 – 30 October 2009, sheen sightings at Ashmore, Cartier and Hibernia Reef towards the end of the incident. During the Montara response there was only one confirmed shoreline impact; a single sample of wax residue was identified on 30 October 2009 during a shoreline survey.

AMSA's operational response was reviewed daily based on observations from morning surveillance flights. Equipment from oil industry stockpiles in Singapore and Geelong, as well as AMSA stockpiles in Darwin and other States were utilised in the clean up operation.



Courtesy
AMSA

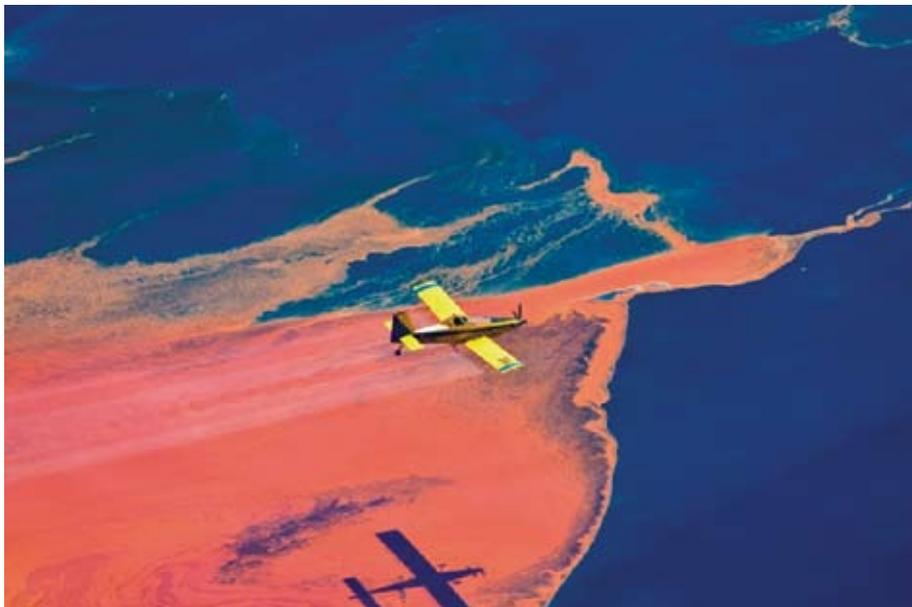
Response personnel were provided by the oil industry and AMSA as well as through the NRT arrangements. This included assistance from all States and the Northern Territory (NT). Assistance was also provided by New Zealand personnel in accordance with the formal Memorandum of Understanding arrangements between Australia and New Zealand. In total, 247 personnel were involved in the response, with many undertaking more than one rotation through at least one of the positions in the response organisation. The IAT noted that the extensive number of personnel involved in the response reflected the size and complex nature of the task, as well as the opportunities provided for a significant number of personnel to gain real time experience in actual spill response activities to supplement their regular training in simulated exercises. Details of the response personnel involved are as follows:

- ▶ AMSA – 25 from all 4 of AMSA's Divisions
- ▶ NRT and support
 - 5 from Northern Territory
 - 14 from Western Australia
 - 26 from New South Wales
 - 7 from Victoria
 - 6 from Tasmania
 - 19 from South Australia
 - 19 from Queensland
 - 5 consultants
- ▶ New Zealand – 5
- ▶ Oil Spill Response – Singapore (OSR) - 21

- ▶ AMOSC – 20
 - 4 permanent staff
 - 3 consultants
 - 13 core group members from Santos, Esso, Caltex, Woodside and Shell
- ▶ Asia Pacific Applied Science Associates – 1 (trajectory modelling)
- ▶ Australian Maritime Resources (AMR) – 15 (fixed wing dispersant spraying)
- ▶ Aerorescue – 56 (Dornier aircraft)
- ▶ Hardy Aviation – 1
- ▶ Pearl Aviation – 1
- ▶ Shorelands Group – 1

Dispersant spraying operations commenced on 23 August 2009 and continued until 1 November 2009:

- ▶ the Hercules C-130 sprayed a total of 12,000 litres of dispersant on 23 and 24 August;
- ▶ aircraft contracted to AMSA as part of Australia's Fixed Wing Aerial Dispersant Capability continued spraying operations based out of Truscott-Mungalalu aerodrome from 25 August until 2 September, spraying 32,000 litres of dispersant; and,
- ▶ vessel spraying operations were carried out from 30 August to 1 November, with 118,000 litres of dispersant sprayed.



*Courtesy
Mark Hamilton
photography*

Based on comments provided to the IAT, observations made by experienced personnel during the response indicated that the use of dispersant was highly effective in assisting the natural process of biodegradation and minimising the risk of oil impacts on reefs or shorelines. The six types of dispersant used, Slickgone NS, Slickgone LTSW, Ardrex 6120, Tergo R40, Corexit 9500 and Corexit 9527 were all prior approved for use within Australian waters, having passed laboratory acute toxicity testing requirements applied under the National Plan arrangements.

Offshore containment and recovery operations commenced on 5 September 2009 and continued until 30 November 2009, although no recoverable oil was located after 15 November 2009. These operations involved two vessels working together joined by a 300 metre containment boom, with a skimmer operating in the boom “pocket” to recover the oil. For much of the response, two pairs of vessels undertook these operations. A total of 844,000 litres of product was recovered. It is estimated that some 493,000 litres of this oil-water mixture was oil.



*Courtesy
AMSA*

DEWHA reported one confirmed report of an oil affected sea snake and 29 oil affected birds found in the region affected by the oil spill. Of these, 21 birds died as a consequence of being oiled. No confirmed reports of affected whales or other cetaceans were received. No other confirmed reports of affected wildlife were received despite extensive aerial and water-based patrols in the area.

Based on information currently available to the IAT, overall the response operations appear to have been successful in achieving the objective to prevent oil from impacting on sensitive marine resources, in particular the marine parks of Cartier and Ashmore Reefs, and the northwest coast of Western Australia.

2 DISCUSSION/KEY ISSUES

2.1 AMSA Response Arrangements

A common view expressed to the IAT was that AMSA should have established the ICC with the Incident Controller (IC) in Darwin as soon as possible, and that a comprehensive response structure, as set out in the National Contingency Plan, should also have been put in place immediately. The IC was not moved to Darwin until 21 September and for the first week of the response there were three AMSA personnel on scene (in Darwin and Truscott-Mungalalu). Issues raised and views expressed during debriefs included:

- ▶ the response was under-resourced in terms of personnel until at least late September;
- ▶ having the IC in Canberra meant that a key decision maker was removed from the immediate vicinity of the incident;
- ▶ lack of appropriate Information, Communication and Technology (ICT) and Geographic Information System (GIS) support in Darwin during the early stages of the response;
- ▶ communication problems between Darwin and Canberra, including problems associated with transferring large electronic video and photographic files;
- ▶ the IC spent a considerable amount of time in meetings, meaning at times it was difficult for Darwin-based personnel to contact the IC;
- ▶ difficulty in co-ordinating daily operational plans between Darwin and Canberra; and
- ▶ a lack of confidence by AMSA executive in moving the IC from Canberra in the early days of the response.

Location of the Incident Controller / Incident Control Centre

The IAT noted that the decision to retain the IC in Canberra for the first four weeks of the response was not consistent with the National Contingency Plan, which provides that:

“the IC is responsible for the management and co-ordination of response operations at the scene of a pollution incident to achieve the most cost effective and least environmentally damaging resolution to the problem (emphasis added).”¹

This point is again made in a separate section of the Plan, as follows:

“the Incident Controller shall establish an Incident Control Centre at a location, in close proximity to the incident, affording resources and facilities for the sustained management of the incident. This shall include access to communication facilities, suitable road access and other resources required for the response.”²

The National Contingency Plan also makes provision for the position of Marine Pollution Controller (MPC), who is a senior manager with overall responsibility for managing the response. The National Contingency Plan provides that the MPC

“...must be capable of ministerial as well as senior government, industry and media liaison.”³

¹Paragraph 2.9.1.2

²Paragraph 3.4

³Paragraph 2.9.1.1

The implication is that for a major incident, the MPC would remain in Canberra to deal with the higher level liaison issues, while the IC manages the response on site.

Notwithstanding the references in the National Contingency Plan, the IAT recognises the authority of the AMSA executive management to execute whatever decision it makes to ensure an effective response to such incidents. In this case, a strong view was put to the IAT that the AMSA Executive Team would have a direct role in the response in the early days and until an effective local response team was established. It was also the view of the MPC, in the early stages of the response, that the IC was better placed in Canberra due to the availability of the communications and other facilities of the AMSA Emergency Response Centre. This Centre is well suited to coordinating an aviation based response.

National Plan Response Structure

The National Contingency Plan provides that the response to any pollution incident will be managed using the OSRICS structure. The OSRICS structure is provided in the National Contingency Plan,⁴ and in summary lists four functions under which it is possible to group the tasks that need to be undertaken during a marine pollution response – Planning, Operations, Logistics, and Finance and Administration.

The Contingency Plan provides that:

“the number of staff required to fill positions in the OSRICS structure can be varied according to the size and complexity of the incident and the number of staff available. In a major incident all positions may be filled, but in a lesser incident one person may fill a number of positions.”⁵

With respect to the Montara response, the views expressed on this issue can be summed up by the following statement made during the NRT debrief:

“we should have started with implementing the full OSRICS structure in Darwin (in particular the IC) and scaled back as and if required. The response structure for this incident started small and then escalated, we were behind the whole time.”

The IAT notes the approach taken in New Zealand, which was outlined during the NRT debrief. The contingency plan followed by Maritime New Zealand stipulates that a response team of 20 personnel will be sent to the scene of a spill immediately to establish a response command centre, and scaled back as necessary from that point.

AMSA's Crisis Management Team

AMSA has arrangements in place to respond to maritime emergencies (pollution, ship casualty) and search and rescue incidents. These arrangements are consistent with national contingency plans and manuals.

As indicated above, the National Contingency Plan requires the appointment of a senior management level MPC to take overall responsibility for managing the response. The MPC must be capable of ministerial as well as senior government, industry and media liaison. The IC is responsible to the MPC for the operational aspects of the response.

⁴Appendix 3

⁵Paragraph 2.9.1

In AMSA, a Crisis Management Team (CMT) may be established to provide high-level oversight and liaison functions (e.g. Ministerial, inter-governmental) in support of the MPC. The CMT may also advise on matters of significant policy that may arise during an incident. The decision to establish the CMT will generally be made by the Chief Executive Officer or the General Manager, Emergency Response.

The CMT is responsible for considering the impact of an incident on the operation of AMSA, including political and public relations implications. The CMT may also consider options and provide advice on courses of action as necessary.

The CMT may comprise:

- (a) Chief Executive Officer;
- (b) Executive Managers;
- (c) General Counsel; and
- (d) Administrative support.

Dependent upon the incident, the CMT may also include:

- (a) Manager, Public Relations;
- (b) Chief Financial Officer;
- (c) Parliamentary Advisory; and
- (d) Other specialist and support staff as required.

Documentation for the CMT was developed as part of the national maritime emergency response arrangements and is available on the AMSA intranet.

The Deputy Chief Executive Officer, Maritime Standards Division, was the designated MPC for the Montara incident. The MPC exercised firm strategic direction over the IC as the national contingency plan requires.

The CMT was established within hours of the incident commencing and met on a more or less daily basis throughout the incident. The MPC attended meetings of the CMT. The CMT took on its documented roles. In particular, the CMT hosted frequent meetings of the Co-ordination Group (as outlined above) to foster a common long range planning cycle and to ensure consistency of information.

AMSA maritime emergency response contingency plans also make reference to the Emergency Response Centre (ERC), referred to externally as the Rescue Coordination Centre (RCC Australia). It is the 24 hour coordination centre responsible for multi-disciplinary incidents (search and rescue, environment protection, emergency towage, casualty coordination) and multi-agency coordination. ERC staff may be requested to support National Plan operations during significant incidents.

The documentation described above is contained within AMSA's *Casualty Management Guidelines*. It was developed at a time when all maritime emergency incident response roles (covering maritime casualty and pollution response) were held by one Division. Subsequently, national plan pollution response roles were transferred to another Division.

Discussion

The above issues – the location of the IC/ICC and the size of the initial response structure – and several other related issues highlight the need for AMSA to update the CMT and ERC documentation to clarify that it is applicable to all emergency response functions in all Divisions, and regularly exercised.

The relative lack of operational experience in leading a response to an oil spill of this magnitude, together with the initial off-shore and aviation focus of the response, meant that the MPC and the AMSA executive did not allow direct operational control of the incident to move away from Canberra for some time. Agreed arrangements and “trigger points” for moving control to the location of the incident, in accordance with the National Contingency Plan, as well as a daily communications strategy between the MPC and IC should clarify such arrangements for future incidents. Consideration should also be given to domestic application of the New Zealand model, outlined above.

As well as the location of the ICC and size of the initial OSRICS structure, the additional issues to be addressed in the updated CMT and ERC documentation include:

- ▶ the use of the Fixed Wing Aerial Dispersant Capability in remote offshore areas. The IAT noted that there was initially some concern regarding the risk of such operations, and that this was addressed in discussions with the Civil Aviation Safety Authority (CASA);
- ▶ the location of potential ICC in major capital cities. It was noted that the accommodation located for the ICC in Darwin was too small and poorly set up, and that it would be useful to identify such locations in advance, possibly using existing emergency management facilities;
- ▶ the role of RCC Australia within AMSA which is responsible for tasking the AMSA Dornier aircraft;
- ▶ abilities and limitations of the use of the AMSA Dornier aircraft;
- ▶ that ICT and GIS support is critical in a major incident, and that this needs to be clearly identified within the OSRICS structure and rapidly deployed;
- ▶ the need to ensure that, where AMSA is the Combat Agency, at least one AMSA officer is in attendance at all times, while NRT rotations continue;
- ▶ the need to ensure that the positions on rotation within the ICC have an email address and mobile phone number that stays with the position rather than the officer;
- ▶ guidance for accessing additional skilled resources from areas of AMSA that are normally not directly involved in the National Plan;
- ▶ debriefing arrangements for personnel returning after each deployment;
- ▶ the role of the CMT and in particular interaction with the MPC and IC;
- ▶ holding meetings during an incident, including a formal structure for daily telephone briefings between the onsite IC and the MPC based in Canberra;
- ▶ the possibility of having in readiness dedicated equipment and procedures to set up a remote office;
- ▶ the potential for use of personnel from local employment agencies to undertake routine support roles; and
- ▶ ensuring NRT rostering can be effectively undertaken by more than one person.

Recommendation 1 – The Australian Maritime Safety Authority should review and update its existing internal procedures for oil and chemical spill response for major incidents in which the Authority is combat agency. Regular trials of the procedures should be undertaken (given live implementation is likely to be infrequent) and adjustments made as necessary.

2.2 AMSA Combat Agency Role

The IAT noted that the National Plan envisages that in the first instance, the company responsible for a petroleum industry facility that is the source of a marine oil spill is expected to take on the role of oil spill combat agency. The IAT sees no reason to change this arrangement in the National Plan, given that the National Plan also makes provision for a State/NT agency, or AMSA, to take on this combat agency role if circumstances warrant such action.

As indicated previously, this was the first time AMSA was the combat agency for an oil spill from an offshore platform and only the third time AMSA (or its predecessor) has been combat agency for a major oil spill response since establishment of the National Plan in 1983.

The significance of AMSA's combat agency role and need for skills and experience is amplified by their role in the National Plan. When companies and/or the States/NT cannot manage the clean up of a spill the role is handed up to AMSA. Hence AMSA should provide or have access to amongst the best, most capable and experienced expertise. The challenge of acquiring and maintaining such expertise when actual incident events are extremely infrequent is demanding. The IAT struggled with the best means of addressing this issue.

There is no doubt AMSA needs immediate access to expertise and experience in the event of an incident for which they have the combat agency role. These could be retained in AMSA (as in the present model) and kept current by ongoing training and involvement in State/NT/industry run responses. However, with an actual incident led by AMSA being rare there are difficulties in keeping the expertise current, the experience relevant and at the appropriate level. Regular full scale trial exercises would be an important means to maintain skills and ensuring all in AMSA are familiar with their roles. However, exercises are never a substitute for the real thing. The costs associated with retaining highly skilled expertise and regular training and exercising of these skills would be significant but would need to be maintained no matter the frequency of being called into live action.

Other alternatives are available to AMSA to have access to high quality expertise. AMSA could seek to utilise, as its internal expertise, the skills available in the States/NT agencies. Some personnel there would be practiced in dealing with regular incidents (of a smaller, but not insignificant, nature) and do provide a pool of expertise with current experience and appropriate subject matter knowledge. The problem would be their unfamiliarity with AMSA's organisational, procedural and Commonwealth Government requirements and in ensuring guaranteed access to these personnel.

Another alternative for AMSA is to outsource the task (see United Kingdom Case Study on following page). Under this arrangement an outside body would be contracted to provide the skills and expertise to AMSA if and when required. It is likely that incident management skills in such a body would be maintained by responding to incidents other than oil pollution events. Victoria has taken a similar type of approach where physical on-shore or at-sea clean-up activity is undertaken by a private contractor.

Case Study – Arrangements in the United Kingdom

In the United Kingdom (UK), the Department of Energy and Climate Change places an obligation on operators of oil and gas installations to have approved plans in place to respond to a Tier 2 spill (regional – beyond the in-house capacity of the operator) within 2 to 6 hours, and a Tier 3 spill (requiring national resources) within 6 to 18 hours. To meet these obligations, operators enter into contractual arrangements with private oil spill response organisations, of which there are more than 50 in the UK, including Oil Spill Response based in Southampton.

The UK Government (Marine and Coast Guard Agency - MCA) could take over the response; however this would only occur in extreme circumstances, for example a protracted incident with major pollution that spanned international boundaries. MCA would work cooperatively with the operator, offering resources (the resources they have to respond to pollution from ships) as required, and then assume control as necessary.

A further alternative would be for AMSA to delegate its responsibilities to a particular State/NT and support them to ensure they could cope if/when an incident arose.

Variations and combinations of all the above alternatives could be considered.

The IAT considered all alternatives to have strengths and weaknesses. The costs and risks involved in maintaining any of the alternatives need to be carefully assessed. Nevertheless, the IAT was clear that ongoing and continuous access to skills and expertise was necessary and had to be acquired, trained and sustained by AMSA.

Recommendation 2 - The Incident Analysis Team recognises the challenges associated with using and maintaining skills over an extended period to implement a Contingency Plan that, in terms of the Australian Maritime Safety Authority's combat agency role, is used infrequently. Nevertheless, the Authority needs to consider all available options to ensure appropriate resourcing is available to effectively undertake its combat agency role.

2.3 Responsibility for Environmental Issues

Role of the Environment and Scientific Coordinator

ESC's are appointed in each jurisdiction in Australia as part of the National Plan. The role of the ESC is to co-ordinate environmental input into response planning and decision making and to provide environmental and scientific advice and services to the Incident Management Team. The AMSA induction program for ESC's lists the duties of the ESC during an oil spill as including:

- ▶ assess likely environmental effects of the spill;
- ▶ advise on environmental priorities and preferred response options;
- ▶ determine habitat and wildlife protection strategies;
- ▶ shoreline contamination assessment;
- ▶ oiled wildlife cleaning and rehabilitation;
- ▶ dispersant use and toxicity advice;
- ▶ oil spill fate, chemistry and computer trajectory modelling;
- ▶ weather monitoring, prediction and spill surveillance activities;

- ▶ sampling and environmental damage assessment;
- ▶ liaison and environmental problem solving; and
- ▶ waste disposal advice and management.

Under National Plan arrangements, a comprehensive suite of equipment, systems and guidance documents have been developed and distributed to assist the ESC's in carrying out their functions, including:

- ▶ Oil Spill Response Atlas (OSRA), which is a computerised GIS program developed in the late 1990's with funding from the Natural Heritage Trust, Coasts and Clean Seas Program;
- ▶ Oil Spill Trajectory Modelling (OSTM);
- ▶ Chemical Spill Trajectory Modelling (CSTM);
- ▶ Oil Spill Monitoring Handbook;
- ▶ ESC Training and Induction Package; and
- ▶ the ESC Network and associated annual workshop program.

National Contingency Plan

The IAT noted that the role of the ESC is not adequately explained in the National Contingency Plan, is not specifically referred to in the OSRICS structure, and consequently is confusing in terms of where the position fits into a response. The National Plan provides that:

*"The Commonwealth and the State/NT shall pre-appoint the ESC, either on a State/NT, regional or local area basis. During a spill response the ESC will normally form part of the Planning Section. In this role the Planning Section is to provide the IC with an up-to-date and balanced assessment of the likely environmental effects of an oil spill. The Planning Section will advise on environmental priorities and preferred response options, taking into account the significance, sensitivity and possible recovery of the resources likely to be affected. Under some State/NT arrangements the ESC may directly advise the MPC."*⁶

The section of the National Plan dealing with the Planning Officer's role includes the statement that:

*"the Planning Officer is responsible for the provision of scientific and environmental information, maintenance of incident information services, and the development of Strategic and Incident Action Plans".*⁷

The role of the Commonwealth environment agency during an incident is set out in the Plan as follows:

"...advise on potential impacts of oil spills on threatened marine and migratory species, such as seabirds, seals, marine turtles, whales and dolphins, It can also provide advice on proposals approved under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) where conditions may specify arrangements for dealing with spills.

*...advice on habitats in Commonwealth marine protected areas, Antarctic and sub-Antarctic seabirds, marine mammals, marine invertebrates and macroalgae, also with advice on rates of hydrocarbon biodegradation, dispersal and the use of dispersants in cold climates."*⁸

⁶Paragraph 2.9.1.7

⁷Paragraph 2.9.1.3

⁸Paragraph 2.10.3

The Commonwealth ESC Role Prior to the Montara Incident

The IAT was advised that until the late 1990's, the Commonwealth environment portfolio provided the Commonwealth ESC and played an active role in the ESC arrangements, providing funding and attendees for biennial ESC Workshops (these workshops are now annual events). When the environment portfolio discontinued these arrangements, AMSA assumed the ESC role.

Discussion

Concerns were raised with the IAT regarding the role of the ESC. These included:

- ▶ a lack of clarity in the early stages as to who was undertaking the role of ESC, and differing views between AMSA and the DEWHA, regarding DEWHA's role;
- ▶ a lack of sampling protocols, including sampling techniques, storage, and sample containers, particularly during the initial response phase;
- ▶ no proper integration of the monitoring program with the response;
- ▶ need for the Net Environmental Benefit Analysis to be more robust, regularly updated and include more supporting scientific evidence;
- ▶ need for a more holistic approach between Type I (operational), and Type II (non-operational or scientific) monitoring;
- ▶ need for the Commonwealth ESC to have established links with all State/NT ESCs in order to seek local environmental advice and input;
- ▶ the need to improve liaison and information provided to stakeholders in the fishing industry; and
- ▶ the need to improve communication and information flow between AMSA and DEWHA as the ESC, including on the comprehensive suite of equipment, systems and guidance documents designed to assist the ESC's that is listed above.

At the time of the Montara incident, the ESC role within AMSA rested with a number of officers. During the incident these officers were critical to the overall AMSA response and were required to fill other roles, such as Incident Controller, Operations Officer and/or to undertake aerial surveillance and trajectory modelling. The IAT was advised that whilst the role of ESC rested with AMSA, the Net Environmental Benefit Analysis was regularly updated. While the IC was highly experienced as a Commonwealth ESC the dual role of AMSA officers resulted in a partial "vacuum" in terms of the critical issues that are normally addressed by an ESC for the first few weeks of the response. As a consequence, AMSA and DEWHA met to discuss a solution.

With regard to DEWHA, as indicated above, the National Contingency Plan refers only to the provision of advice, not the allocation of the role of Commonwealth ESC. Although DEWHA provided additional support, beyond its advisory role, it was not formally appointed ESC until 15 September.

A liaison officer from DEWHA was also sent to work in the ICC in Darwin, and this worked well. Views expressed to the IAT indicate that there would have been benefits to the person undertaking the role of ESC to have been located in Darwin within the ICC as an integral part of the team.

The IAT noted that while DEWHA performed the function of ESC, effectively the ESC role is new for DEWHA, and like many other National Plan stakeholders, DEWHA has not previously been involved in the operational response to an oil spill of any size. DEWHA is not an operational agency and is not in a position to directly undertake wildlife response. During discussions with the IAT, DEWHA officers advised that the Department is currently considering what its role should be in the National Plan in

terms of provision of environmental advice, wildlife response, and monitoring. The IAT notes that this consideration should also be undertaken in conjunction with AMSA.

Given the importance of the provision of environmental and scientific advice in any oil or chemical spill, the IAT questions whether it would be better for the ESC to work with and provide advice direct to the IC, rather than as part of the Planning Section.⁹ The IAT notes that some State/NT response structures utilise such an approach. In any event, responsibility for the provision of environmental and scientific advice should be clearly identified in the OSRICS structure.

Monitoring and cost recovery

The National Plan arrangements consider monitoring under two headings – “Type I” and “Type II” monitoring. These are defined in the National Plan Oil Spill Monitoring Handbook as:

- ▶ Type I (“Operational”) monitoring provides information of direct relevance to spill response operations, i.e. information needed to plan or execute response or cleanup strategies.
- ▶ Type II (“Non-operational” or “Scientific”) monitoring relates to non-response objectives and includes short term environmental damage assessments, longer term damage assessments (including recovery), purely scientific studies, and all post response monitoring activities.

The Oil Spill Monitoring Handbook, which was jointly developed with Maritime New Zealand and endorsed by State/NT ESC’s in 2003, provides considerable detail on the different types of monitoring, examples of each, as well as guidance for identifying the need for Type I monitoring. A separate document - “Oil Spill Monitoring – Background Paper” (2003) - provides guidance about the nature, justifiable scope, and scale of Type II monitoring programs.

As noted in the Oil Spill Monitoring Handbook,

“classifying monitoring according to its underlying purpose helps define the likely methodologies to be used and to determine whether the monitoring is likely to be considered a legitimate spill response cost.”¹⁰

With regard to the cost, Type I monitoring is seen as an integral part of the response and as such is funded from the same sources as other components of the response. Type II monitoring is seen as separate to the response and these costs are not reimbursed under the National Plan arrangements, but may be reimbursed separately by the polluter, as in this incident.

The view was expressed to the IAT that the National Plan should also provide for reimbursement of Type II monitoring, and that the lack of such guarantees with regard to cost recovery lead to initial uncertainty when initiating the monitoring program. The view was also expressed that consideration be given to the public-good benefits that arise from the Type II monitoring and the cost sharing arrangements that should apply between government and the company responsible for the spill. This issue is also relevant to Recommendation 4 below.

Recommendation 3 - In conjunction with the Department of Environment, Water, Heritage, and the Arts and other relevant Commonwealth agencies, the Australian Maritime Safety Authority should revise the National Marine Oil Spill Contingency Plan and the National Marine Chemical Spill Contingency Plan to develop a clear plan and delivery mechanism for the provision of environmental advice, preparation and maintenance of Net Environmental Benefit Analysis, wildlife response and monitoring for a spill where the Commonwealth is lead agency. This should also include a clear statement on sourcing Commonwealth environmental and scientific advice.

⁹Paragraph 2.9.1.7

¹⁰Paragraph 1.2

2.4 Cost Recovery Arrangements

The IAT noted that some National Plan participants question the adequacy of cost recovery from the offshore petroleum exploration and production industry in the event of an oil spill. The IAT is of the view that current cost recovery arrangements for the offshore petroleum exploration and production industry are not sufficiently understood by the broader group of National Plan participants. In particular the National Plan participants do not have a clear understanding of the insurance arrangements as required by the OPGGSA or the ability of the Joint Authority (under the OPGGSA) to terminate an exploration or production licence in the event that the title holder fails to comply with its responsibility to clean up an oil spill (e.g. failed to pay all costs associated with a spill response). Such an event would significantly affect a company's ability to gain further petroleum titles in Australia's offshore areas or remove its access to its primary asset, the petroleum resource.

By way of background, the day-to-day administration, including insurance matters, of offshore petroleum activities is the responsibility of the relevant State or Territory Designated Authority under the OPGGS Act.

The Commonwealth OPGGS Act, Section 571, requires the registered holder of a permit, lease or licence, as directed by the Designated Authority from time-to-time, must maintain adequate insurance against expenses and liabilities associated with complying with directions relating to a clean-up or other remediation of the effects of the escape of petroleum. This typically includes pollution cleanup, well control and relief well drilling, removal of debris and liability to third parties.

Currently the level of insurance is determined by the operator and its insurer to directly reflect the potential liability associated with the type and extent of the activities undertaken on the title at that time. While higher risk activities such well drilling, production and the decommissioning of a facility require substantial insurance, activities such as geophysical surveying are considered lower risk, unless they are undertaken in environmentally sensitive areas. The Designated Authority and/or the Joint Authority may challenge the set insurance amounts if it believes the insurance does not meet stakeholder expectations or is considered too low based on industry best practice. The IAT has been advised that some Designated Authority's may not internally possess the necessary expertise to fully assess or challenge the insurance amounts set by the insurer.

Generally insurance amounts of between \$100 and \$300 million (US) dollars are considered to be standard practice in the offshore petroleum industry (not including third party claims). The amount of coverage for specific activities is set by the operator in consultation with the insurer and its underwriter, and is based on an expert assessment of all potential liabilities.

While full insurance certification is not directly lodged with the Designated Authority, the operator is required to provide adequate evidence of insurance. This insurance must be with acceptable carriers under international insurance and re-insurance criteria, and monetary limits must be adequate to meet the costs and expenses for which the operator may be liable, including all contractor activity, unless subject to separate acceptable insurance. Provisions of a restrictive or exclusive nature are not acceptable. The IAT notes that presently AMSA has limited visibility into these arrangements

The IAT was advised that approvals granted under the EPBC Act for offshore oil and gas production facilities typically include a requirement for the OSCP to detail the insurance arrangements that have been made in respect of the costs associated with repairing any environmental damage. Draft OSCPs with inadequate insurance arrangements would not be approved by the Minister or their delegate.

The IAT notes that the offshore petroleum exploration and production industry contributes directly to the resources and operations of AMOSC whose activities are fully integrated in the National Plan managed by AMSA. AMOSC's roles are to provide equipment and personnel on a 24 hour standby basis to respond to a major oil spill, to provide oil spill training and advice on the use of oil spill equipment and response activities. Costs associated with AMOSC activities during an oil spill response associated with an offshore petroleum industry facility will also be covered by the offshore operators insurance. While membership of AMOSC is not compulsory, non-member companies still have access to its personnel, equipment and services. Also, it is unlikely an operator would receive approval to operate without such membership, or an equivalent, as they would not be able to demonstrate to the Designated Authority a capacity to respond to a major spill.

The above description is intended as a general guide to current arrangements and it is recommended that AMSA work with RET and petroleum industry representatives to conduct a more comprehensive analysis of these arrangements.

Once completed, the analysis should form the basis for informing the broader population of National Plan participants, particularly those not familiar with relevant regulatory and insurance arrangements associated with the offshore petroleum exploration and production industry.

The IAT also noted the UK's approach to this issue (see below).

Case study – Arrangements in the United Kingdom

All offshore operators currently active in exploration and production on the UK continental shelf are party to a voluntary oil pollution compensation scheme.

Under the Offshore Pollution Liability Agreement of 4 Sept. 1974 (known as OPOL), operating companies agree to accept strict liability for pollution damage and the cost of remedial measures with only certain exceptions, up to a maximum of US \$120,000,000 per incident. Within this limit there may also be included the cost of remedial measures undertaken by the party to OPOL involved in the incident.

The parties have to establish financial responsibility to meet claims arising under OPOL by producing evidence of insurance, self-insurance or other satisfactory means. They also jointly agree that in the event of a default by one of the parties, each will contribute proportionally to meet claims.

OPOL initially applied to offshore facilities within the of the United Kingdom of Great Britain and Northern Ireland but was later extended to apply to such facilities within the jurisdiction of Denmark, the Federal Republic of Germany, France, the Republic of Ireland, the Netherlands, Norway, the Isle of Man and the Faroe Islands.

The Agreement came into effect on 1st May 1975, and was initially an interim measure to provide for a strict liability regime, whilst awaiting a regional Convention of Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources (CLEE). However the nine participating States were unable to agree and the final text of the treaty remains unratified and the UK Government judged that their interests could best be achieved through the continuing working of OPOL.

Recommendation 4 – The Department of Resources, Energy and Tourism should, in conjunction with the Australian Maritime Safety Authority and the offshore petroleum, exploration and production industry, undertake a review of the legislative arrangements concerning insurance to ensure cost-recovery arrangements following oil spills are effective, and recommend any improvements considered necessary. Following this both agencies should jointly develop and distribute to National Plan participants information on arrangements for insurance and cost recovery for incidents involving the offshore petroleum exploration and production industry as envisaged by the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* and related arrangements.

2.5 The Australian Maritime Safety Authority Act

While the National Plan IGA clearly contemplates responding to oil spills from offshore petroleum operations, the IAT noted that there is a question as to whether this is consistent with the *Australian Maritime Safety Authority Act 1990* that established the Authority. Subsection 2A (b) of the Act provides that one of the main objectives of the Act is (emphasis added):

(b) to protect the marine environment from:

(i) pollution from ships; and

(ii) other environmental damage caused by shipping;

By contrast, the functions of the Authority set out in paragraph 6(i) (a) of the Act do not restrict the pollution to shipping sources. This provision reads that one of the functions of the Authority is simply to

“...combat pollution in the marine environment.”

AMSA also has a wide incidental function set out in paragraph 6(i) (g) of the Act as follows:

“...to perform functions incidental to any of the previously described functions.”

AMSA advised the IAT that it considers that there is a good basis for its response in this situation based on the width of AMSA's incidental functions. The IAT notes, however, that there is both a lack of clarity regarding AMSA's authority to respond to oil spills from sources other than ships, and a possible unintended expectation that AMSA should also be responding to other sources of marine pollution (for example, land based sources, lost or discarded fishing gear, garbage, etc.). This should be resolved as a matter of priority.

Recommendation 5 - As a priority, the Australian Government should resolve any ambiguity about the legislative powers in its administered legislation to respond to spills other than from ships and if so, take steps to rectify this situation.

2.6 Oil Spill Contingency Plans

Development of an OSCP is a condition under the OPGGS Act Environment Regulations and is also, in some instances, a condition under the EPBC Act.

Under the OPGGS Act Environment Regulations offshore petroleum operators are required to submit for approval and acceptance, to the relevant State and Territory Designated Authority, an Environment Plan, Implementation Strategy and an OSCP for a proposed activity.

Typically an OSCP contains, amongst other things, detailed emergency response information such as an emergency contact directory, an operator's response, notification and action plans, oil characteristic types, chemical contained at the facility, integration with State and National Oil Spill Response Plans, modelling of incident scenarios and prevention and available equipment.

Similarly approvals granted under the EPBC Act typically require approval of an OSCP. Although exploration drilling is referred by companies under the EPBC Act, it does not typically trigger the Act or require further assessment and approval, including approval of an OSCP.

The IAT was advised that DEWHA has identified appropriate and consistent consultation with AMSA on OSCPS as an issue and is intending to liaise with AMSA on this issue in the future.

The IAT considers that it is essential for AMSA to be able to review OSCP at the assessment stage to ensure that proposed response plans are consistent with the National Plan arrangements.

The IAT is also aware that current OSCP assessment processes can vary between jurisdictions. It may therefore be appropriate to review the current OSCP assessment process to ensure that potential impacts of implementing any changes to the current approvals processes are identified and appropriately considered.

Recommendation 6 – The Department of Resources, Energy and Tourism and, where relevant, the Department of the Environment, Water, Heritage and the Arts, should ensure that the Australian Maritime Safety Authority/State/Northern Territory and other agencies involved in the National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances be formally consulted in the assessment of Oil Spill Contingency Plans for offshore facilities prior to their approval.

2.7 Risk Assessment

The Australian Petroleum Production and Exploration Associations submission to the Montara Commission of Inquiry lists the following seven well blowouts in offshore Australia since 1965, with only two (including Montara) since the National Plan was established in 1973:

18/2/1965	Barracouta No.1	Bass Strait
24/8/1966	Marlin B-1	Bass Strait
2/12/1968	Marlin A7	Bass Strait
6/8/1969	Petrel No.1	Timor Sea
19/5/1971	Marlin A4	Bass Strait
17/12/1984	Flounder A1	Bass Strait
21/8/2009	Montara H1	Timor Sea

The IAT noted that of these seven incidents only the Montara Wellhead Platform incident involved a significant oil release as the others were gas wells, except Flounder A1 which was a shallow gas release from an oil well during drilling operations.

The IAT also noted that an assessment of the risk of oil spills from offshore petroleum exploration and production facilities was included in wider national risk assessments undertaken as part of the last two National Plan reviews, in 1993 and 2000.

The first was undertaken by the Bureau of Transport and Communications Economics in 1991,¹¹ and concluded that, with respect to platform and pipelines and based largely on United States of America data:

“...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.”¹²

The most recent risk assessment was undertaken by Det Norske Veritas as part of a review of the National Plan in 2000, and 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.”¹³

Taking into account the extent of growth in oil and gas exploration and the increase in general shipping movements off the north west coast of Australia in recent years, the IAT considers it will be important to emphasise these activities as part of the proposed comprehensive risk assessment that will provide input to the National Plan Review to be undertaken in 2010.

Recommendation 7 – The Australian Maritime Safety Authority should ensure an assessment of the preparedness for oil spill response across Australia, with particular focus on the northwest coast, is incorporated in the proposed review of the National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances. This assessment of preparedness should be based on a formal risk assessment of the possibility of a major oil spill arising from all marine sources, with particular emphasis on the increased activity of the offshore petroleum exploration and production industry and other marine operators.

2.8 Use of Petroleum Industry Resources

While there is widespread understanding amongst National Plan stakeholders that the National Plan is funded through a levy imposed on shipping, the IAT noted questions raised by a number of stakeholders regarding to the level of petroleum industry contribution. It was felt by some that the offshore petroleum exploration and production industry is getting a “free ride” on the back of spill preparedness and response arrangements set up and funded by the shipping industry.

The IAT noted that the levy applies to all petroleum industry vessels entering Australian ports (irrespective of whether they are carrying crude or petroleum products). AIP and AMOSC advised the IAT that in their view the oil industry also makes a substantial contribution to the National Plan through:

- ▶ providing the National Plan with direct access to extensive oil spill response equipment and trained personnel maintained on a standby basis by the oil industry through AMOSC (oil industry resources are made available to AMSA and the National Plan regardless of the source of the marine oil spill);
- ▶ providing support for the National Plan through the Australian Marine Oil Spill Centre (AMOSC) in Geelong, established in 1991 as a subsidiary of the Australian Institute of Petroleum (AIP). The cost of establishing AMOSC was \$10 million, and annual operating costs of approximately \$2 million are

¹¹Major Marine Oil Spills – Risk and Response – Report 70, <http://www.bitre.gov.au/publications/68/Files/R070.pdf>

¹²Page XI

¹³Report of the 2000 Review, page 46

provided by 27 industry companies (this includes resources and shipping companies). This funding is used for:

- all AMOSC preparedness and standby activities;
 - approximately half of the \$A1.1 million annual cost of the national fixed wing aerial dispersant spray standby contract;
 - joint organisation and funding for the SPILLCON Conference every three years; and,
 - a formal agreement between AMOSC and AMSA to utilise the resources of the Singapore/UK based company Oil Spill Response (OSR), AMOSC and local oil industry equipment. AMOSC resources are available to AMSA for any incident regardless of source;
- ▶ the AMOSC training venue in Geelong, as well as AMOSC specialist presenters, are provided for AMSA training courses at no cost, as well as participation in exercises;
 - ▶ AMOSC personnel and resources are made available for use in training exercises, and at no cost. AMOSC personnel actively participate in the design/planning of exercises, the actual exercises, and in the review and implementation of findings from exercises; and
 - ▶ industry advisers have been nominated by AMOSC members to provide a direct link between the Government appointed MPC and the affected company in the event of an oil spill; the industry adviser also provides the direct link between the affected company and the agency/organisation providing the oil spill response.

AIP and AMOSC also advised that AMOSC member companies carry out the vast majority of the oil and gas exploration and production, offshore pipeline and terminal operations, and crude oil and petroleum product tanker movements around the Australian coast. The operator of the Montara platform, PTTEP AA, is an AMOSC subscriber company and consequently has direct access to AMOSC equipment and personnel.

PTTEP AA's parent company, PTT Exploration and Petroleum Public Company Limited, is a Participant Member of OSR, based in Singapore. OSR is an oil industry response co-operative with global operations. The OSR Singapore office maintains a large stockpile of air-transportable equipment designed to combat spills in the Asia-Pacific region. OSR also has equipment stockpiles in Southampton (UK) and Bahrain which can be utilised in the event of a significant oil spill. OSR and AMOSC are both also members of the Global Response Network (GRN), which is a collaboration of seven major oil industry funded spill response organisations around the world which have with the stated aim of harnessing cooperation and maximising the effectiveness of oil spill response services world wide. Both OSR and GRN resources are available to supplement the National Plan through the auspices of AMOSC.

The IAT noted that AMOSC, OSR and the Australian oil companies provided 41 trained personnel who were directly involved in the response to the Montara oil spill. AMOSC and AIP representatives advised the IAT that this level of involvement in the Montara response was in their view appropriate and in accordance with industry expectations, although the point was made that more assistance could have been provided by industry, particularly in the more senior roles in the OSRICS structure.

The IAT notes that under the National Plan the petroleum industry is responsible for the combat agency role in responding to an oil spill in the first instance. The National Plan recognises that a State/NT government agency or AMSA may take over this combat agency role if circumstances warrant such action.

The IAT considers that for oil spills from the offshore petroleum exploration and production industry where AMSA has the combat agency role, rather than calling primarily on NRT members to fill the positions in the OSRICS structure, AMSA should rely more heavily on resources from this industry (this may be experts from individual companies, AMOSC, or OSR). This would recognise the extensive expertise and resources of AMOSC and OSR (with associated international links), and reflect the purpose for which these facilities were established – i.e. specifically to respond to major spills from industry facilities.

While AMSA is expected to take the role of MPC the combined resources of industry are likely to be capable of filling many of the other positions in the response structure, including the IC. To this end AMSA and AMOSC should consult regularly on the availability of senior resources and undertake exercises to test the OSRICS structure that would be expected to respond to a major spill from the offshore industry. This would, in the view of the IAT, create an environment where contributions by the shipping and petroleum industries to the National Plan should appropriately address the risks presented by these sectors. It would also reduce the considerable demands placed on the NRT during major incidents.

The IAT recognises however, that in certain circumstances, the polluter (i.e. the company directly responsible for activities that have caused the spill) may not be in a position to take on the Combat Agency role due to limited resources in Australia to manage the spill response as well as other critical matters associated with the incident leading to the spill.

Recommendation 8 – The Australian offshore petroleum exploration and production industry should be the primary option for resources (including personnel for an Incident Control Centre) when a spill from an offshore petroleum facility occurs. In the event that AMSA is the Combat Agency, then the industry (including AMOSC) should be more heavily relied on to provide appropriate leadership and other resources, with support under existing NRT arrangements as required.

2.9 Operational/Technical Issues

As indicated above, the IAT noted a number of important operational and technical issues raised during the debriefing sessions and meetings, as well as by the completed questionnaires. The 21 issues raised are listed in Appendix 4, the IAT recommends that they be passed to the National Plan Operations Group (NPOG) for consideration and action as necessary.

Four of these operational/technical issues were raised by a number of stakeholders in different ways, and are therefore specifically highlighted below.

Fatigue Management

The NRT provides support to the Australian and States/Northern Territory 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. The general principle currently applied to the NRT, developed following the response to the Global Peace oil spill in Gladstone in 2006, is that a standard rotation is seven days, recognising however that this is largely dependant on the type of work undertaken during a response.

Some felt the seven days rotations were too long, others felt seven days was too short, and others put the view the length of rotation should be considered in light of the specific task being undertaken – for

example working for 7 days on the deck of a vessel in tropical heat wearing full personal protective equipment (PPE) and undertaking containment and recovery operations raises different fatigue management issues than, say, being based in the ICC. Concerns regarding working long hours were also raised by several NRT members.

The IAT notes that AMSA had already recognised the need for more work to be done to develop a proper fatigue management plan for both its own spill response personnel and the NRT. While there are always likely to be different views on issues such as the length of rotations, there is a need to have an agreed approach endorsed by the National Plan Management Committee.

The IAT is attracted to the concept proposed by some, with experience in these matters, that management of fatigue should be based around guidelines (which can be varied depending on circumstances) rather than hard, fixed rules.

National Response Team

While overall the views expressed to the IAT indicate the NRT arrangements worked very well and, as indicated above, provided the basis for the relationships that sustained the response, a number of issues were raised that need to be considered, and these are set out in Appendix 4.

Practical issues include the need for a single mobile phone that stays with the particular position, rather than using personal mobiles and having numbers constantly changing, and ensuring that all NRT members have the required security passes for their particular role.

Web-based Management System

Some of the concerns expressed regarding communication, a lack of information in some areas and practical issues such as better tracking of Commonwealth, industry and State/NT – owned response equipment, will be addressed by the development and implementation of a web-based incident management system for the National Plan. This has been recognised for some time by AMSA, and the IAT understands that the required funding is included in the proposed budget for 2010/2011.

Several examples of such systems are widely used by emergency response agencies in Australia. These systems may be summarised as web-based information management systems providing a single access point for the collection and dissemination of emergency or event-related information. Such systems are designed to aid decision making by providing authorised users with real-time information in a user-friendly format. These systems integrate data, video, messaging, and many other types of information and allow remote access via the Internet for authorised users. The IAT considers a similar system would be a significant enhancement for the National Plan.

Offshore Maritime Coordinator

The need to consider appointing an offshore maritime co-ordinator for similar future incidents was raised with the IAT. This officer could possibly be located on board one of the vessels, with responsibility for providing general briefing to vessels masters and adequate autonomy for vessels to act on their own observations.

2.10 Outstanding Terms of Reference

All TOR were investigated by the IAT. Any TOR not specifically mentioned in the report are either addressed in the operational/technical recommendations or were not raised as concerns by stakeholders.

APPENDIX 1

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) – 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

* After commencement of the analysis, Mr John Gillies withdrew for medical reasons and was subsequently replaced as Executive Officer by Mr Robb McArthur.

APPENDIX 2

DEBRIEFS ATTENDED AND PERSONNEL INTERVIEWED BY THE INCIDENT ANALYSIS TEAM

Montara Wellhead Platform Incident Debriefs

Australian Maritime Safety Authority Staff

Location: Australian Maritime Safety Authority
5th Floor Meeting Room
82 Northbourne Avenue Canberra

Date: 17 December 2009

Attendees: **Facilitator:** Graham Miller

Incident Analysis Team:

Bruce Gemmell (Chair)
Paul Nelson
Matt Verney
Chris Michel
Lesley Dowling
Ron Reinten
John Gillies
Robb McArthur – Executive Officer

Australian Maritime Safety Authority (AMSA) Staff:

Alex von Brandenstein	Lynn Walton
Amanda Mackinnell	Maya Marpudin
Annaliese Caston	Neil Ada
Beth Holden	Nerissa Bartlett
Craig Condon	Ross Henderson
Ewan Perrin	Scott Milne
Graham Whitehead	Tracey Byrne
Jamie Storrie	Tracey Jiggins
Jessica Stortz	Trevor Larkin
Lyn Murray	

Australian Maritime Safety Authority Executive Management Group

Location: Australian Maritime Safety Authority,
Ground Floor Board Room
82 Northbourne Avenue Canberra

Date: 17 December 2009

Attendees: **Incident Analysis Team:**

Bruce Gemmell (Chair)	Lesley Dowling
Paul Nelson	Ron Reinten
Matt Verney	John Gillies
Chris Michel	

AMSA Executive Management Group:

Graham Peachey
Mick Kinley
John Young
Garry Prosser
Barbara Pearson
Brad Groves

National Response Team

Location: Mantra Hotel
84 Northbourne Avenue, Canberra

Date: 18 December 2009

Attendees: **Facilitator:** Graham Miller

Incident Analysis Team:

Bruce Gemmell (Chair)	Lesley Dowling
Paul Nelson	Ron Reinten
Matt Verney	John Gillies
Chris Michel	Robb McArthur – Executive Officer

National Response Team:

Lyn Murray	Dale Jolly	Brian King	John Wright
Mark Alen	Neil Rowarth	Keith Brown	Sheridan Howell
Glen Jackson	Letitia Lamb	Lee Carmody	Mick Sheehy
Chris Worrall	Peter Braddock	Craig Jones	Phil Pegram
Reza Vind	Michael King	Fiona Durik	Graham Whitehead
Abigail Walters	David Ball	Graham Edgley	Wayne Kearney
Rowena Bucklow	Jamie Storrie	Tracey Byrne	Ivan Skibinski
Peter Berry	Nerissa Bartlett	Matt Hanrahan	
Jim Robinson	Shayne Wilde	Craig Condon	
Selina Jenkins	Katrina Hansen	Lynn Walton	

Western Australian National Response Team

Location: Western Australian Department Of Transport
1 Essex Street, Fremantle

Date: 13 January 2010

Attendees: **Facilitator:** Truscott Pty Ltd

Incident Analysis Team

Bruce Gemmell (Chair)
Paul Nelson
Ron Reinten
David Heppingstone
Robb McArthur – Executive Officer

National Response Team Western Australian

Frank Corrello	Mike Waters
Terry Stainton	Jamie Strickland
Rod Burrows	Rae Burrows
Ray Masini	Rhys Jones
Amanda Nadi	Julie Lloyd
Matt Verney	Andrew Gatt
Rowena Bucklow	Serkon Yakaciki
Lisa Hurtema	Gary Jess

PTTEP Australasia (Ashmore Cartier) Proprietary Limited

Location: PTTEP Australasia (Ashmore Cartier) Proprietary Limited
162 Collins Street, West Perth

Date: 14 January 2010

Attendees: Incident Analysis Team:

Bruce Gemmell (Chair)
Paul Nelson
Ron Reinten
David Heppingstone
Robb McArthur – Executive Officer

PTTEP Australasia Staff:

Andy Jacob
Dan Dunne
Eleanor Stoney

John Wardrop

Location: Exxon Mobil – 12 Riverside Quay, Southbank Melbourne

Date: 28 January 2010

Attendees: Incident Analysis Team:

Bruce Gemmell (Chair)
Paul Nelson
Ron Reinten
David Heppingstone
Chris Michell
Leslie Dowling
Robb McArthur – Executive Officer

John Wardrop

AMOSC / AIP

Location: Exxon Mobil – 12 Riverside Quay, Southbank Melbourne

Date: 28 January 2010

Attendees: Incident Analysis Team:

Bruce Gemmell (Chair)
Paul Nelson
Ron Reinten
David Heppingstone
Chris Michell
Leslie Dowling
Robb McArthur – Executive Officer

AMOSC and AIP:

John Tilley
Ivan Skibinski

Department of Environment, Water, Heritage and the Arts

Location: DEWHA
5 Farrell Place, Civic, Canberra ACT

Date: 29th January 2010

Attendees: Incident Analysis Team:
Bruce Gemmell (Chair)
Paul Nelson
Ron Reinten
David Heppingstone
Chris Michell
Leslie Dowling
Robb McArthur – Executive Officer

DEWHA:
Stephen Oxley
Michael Deering
Chantal Simakoff-Ellims
Tania Risniw

Designated Authority

Location: Conference Call Canberra/Darwin

Date: 1 February 2010

Attendees: Incident Analysis Team:
Bruce Gemmell (Chair)
Paul Nelson
David Heppingstone
Chris Michell
John Gillies

**NT Department of Regional Development, Primary Industry,
Fisheries and Resources:**
Alan Holland

APPENDIX 3

SUMMARY OF COMMISSIONED REVIEWS

Third Party Review of AMSA's Incident Management Arrangements Established In Response to the Montara Well Head Leak Incident

Review by Bren Burkevics of the Incident Management Arrangements.

Mr Burkevics is from the Department of Territory and Municipal Services within the ACT Government, and has a lengthy background in the fire and emergency services. His report includes 13 recommendations, key recommendations include:

- ▶ the Environment Protection staff undertake strategic roles (such as IC) rather than tactical roles (e.g. air observer);
- ▶ change our incident management structure to AIMS;
- ▶ a standard template for daily telephone briefings between the teams in Darwin and Canberra;
- ▶ using personnel from local employment agencies;
- ▶ need for a standard template for aircraft and vessels to report in at the conclusion of the day's activities; and
- ▶ develop a plan to ensure that NRT rostering can be performed by more than one individual.

Montara Well Spill Information Collection, Integration and Dissemination

Scott Lillington and Alan Lloyd from AMSA's Emergency Response Centre were asked to analyse the processes in use and recommend any improvements that would assist in responding to this or future incidents of this type. Their report makes a number of observations and recommendations where technology and systems could be used to reduce the workload and improve the timeliness of data capture, processing and reporting.

Key findings are:

- ▶ having in readiness dedicated equipment and procedures to set up a remote office;
- ▶ automating the capture of observation data and its upload for reporting;
- ▶ providing near real time tracking and visibility of response asset locations;
- ▶ developing or purchasing a Web based tool to provide a central location where all computer held material including reports, emails and photos are updated and accessed; and,
- ▶ reducing report creation turn around time so content is less than 24 hours old.

Review of Spatial Information Usage

Steve Forbes, Manager Risk and Geographic Information Systems for the ACT Emergency Services Agency conducted a review of the usage of Spatial Information for the Montara Incident.

His report includes 17 recommendations. Key recommendations include:

- ▶ a concept of operations be developed to ensure the mapping officer is integrated into response operations;
- ▶ development of a standard technology kit for aerial observers;
- ▶ the need for AMSA to finalise the training, software and staffing requirements needed for the use of line scanning;
- ▶ AMSA GIS Manager to be represented on the Emergency Management Spatial Information Network Australia;
- ▶ employ an operationally focussed GIS staff member within Environment Protection;
- ▶ partnership with the Canberra-based Mapping and Planning Support Group;
- ▶ MOU with State and Territory Agencies for access to local hardware and staff for GIS/mapping during oil spills in the AMSA area of responsibility as a continuity measure; and
- ▶ Investigate the use of an integrated emergency response tool such as “WEB EOC.

APPENDIX 4

OPERATIONAL AND TECHNICAL ISSUES TO BE REFERRED TO THE NATIONAL PLAN OPERATIONS GROUP

#	Issue
1	AMSA/AMOSC to identify any Customs/Immigrations issues associated with flying aircraft into Australia in an emergency situation that can be resolved prior to importation.
2	AMSA/AMOSC to Darwin consider potential for joint arrangements for Darwin equipment stockpile, including sharing costs of storage and maintenance.
3	Develop a fatigue management plan for an incident response (guidelines not rules), including need to maintain people in key roles.
4	Improved internal financial arrangements during emergency response (e.g. use of AMSA debit cards, financial management plan).
5	Technical issues associated with UV/IR scanning and processing.
6	Consider potential use of unmanned aerial vehicles for aerial surveillance.
7	Develop a Web-based incident management system for the National Plan.
8	Consider matters relating to connectivity of AMSA/AMOSC equipment and availability of replacement parts.
9	Format of the AMSA time sheet.
10	Modify existing combat agency transfer Protocol to include a process for handing responsibility back to the DA, and any other amendments that may be considered necessary by either the Environmental Assessors forum or the National Plan Operations Group.
11	Develop improved fluorometry arrangements for the National Plan.
12	Consider the need for skimmer/s for recovering surface wax
13	Improved sampling procedures including a portable sampling kit. Also include raising awareness of the document "IMO/FAO Guidance on Managing Seafood Safety During and After Oil Spills" amongst the fishing regulatory authorities around Australia.
14	Consider drawing on retired personnel with appropriate experience for use during training

#	Issue
15	<p>Consider the existing NRT arrangements in light of the Montara incident, with particular focus on:</p> <ul style="list-style-type: none"> • availability and skill sets of members, particularly with regard to skills required for offshore response (e.g. Ro-Boom); • availability of aerial observers, the need for training in the use of GPS units and development of a standard technology kit for aerial observers use of standard reporting format during each rotation; • the need for a standard “information pack” for circulation prior to deployment, as well as more advance notice of deployment; • an agreed process for use of contractors; • availability of PPE in different sizes; • early NRT notification following a significant incident; • whether the current arrangements for the National Plan Support Team are adequate; • the potential for NRT support to come from outside established National Plan State/NT agencies; • ensure all NRT members have ASIC and/or MSIC cards as required; and • the need for dedicated mobile phones that remain with each position in the OSRIC’s structure.
16	<p>Include in the National Contingency Plans a listing of all offshore production facilities and the responsible Designated Authority for each (Check Border Protection Command information list of same)</p>
17	<p>Technical issues associated with speed and capacity of transmitting information from the Dornier</p>
18	<p>Consider the need to appoint an offshore maritime co-ordinator for similar future incidents, possibly located on board one of the vessels, with responsibility for providing general briefing to vessels masters and adequate autonomy for vessels to act on their own observations.</p>
19	<p>Need to improve Sitreps to explain type of oil, where it was heading and what effects it would have. Need better approach to dealing with / explaining type of oil and its potential impacts.</p>
20	<p>National Plan stakeholders recognise the value of appointing liaison officer/s to work in with the IMT.</p>
21	<p>Consider use of a single internet site to provide information on the incident.</p>
22	<p>Consider the need for the National Plan to provide increased portable oil storage capacity for use on board vessels during future offshore containment and recovery operations.</p>
23	<p>Consider the need for a requirement to ensure equipment is operational before offshore deployment.</p>
24	<p>Consider the need to extend exhausts on boom and skimmer power packs to better disperse emissions.</p>

