

PACPLAN

PACIFIC ISLANDS REGIONAL MARINE SPILL CONTINGENCY PLAN

2013



INTERNATIONAL
MARITIME
ORGANIZATION



SPREP
PROE

PACPLAN

PACIFIC ISLANDS REGIONAL MARINE SPILL CONTINGENCY PLAN 2013

TO BE ENDORSED AT THE 24TH SPREP MEETING, APIA, SAMOA – SEPTEMBER 2013

Developed by Secretariat of the Pacific Regional Environment Programme under the auspices of:
PACPOL – the Pacific Ocean Pollution Prevention Programme



SPREP
Vailima, Apia, Samoa
Tel: + 685 21929, Fax: +685 20231

Through funding assistance from:



SPREP LIBRARY/IRC CATALOGUING-IN-PUBLICATION DATA

Secretariat of the Pacific Regional Environment Programme (SPREP)

PACPLAN : Pacific islands regional marine spill contingency plan, 2013.
Apia, Samoa : SPREP, 2013.

88 p. : illus. (col)., maps, tables ; 29 cm

ISBN: 978-982-04-0479-3 (print)

978-982-04-0482-3 (online)

1. Marine environment pollution - Oceania.
2. Marine resources conservation - Oceania.
3. Coastal zone management - Oceania.
- I. International Maritime Organization (IMO).
- II. Pacific Ocean Pollution Prevention Programme (PACPOL).
- III. Pacific Regional Environment Programme (SPREP).
- IV. Title.

363.73796

TABLE OF CONTENTS

TABLE OF CONTENTS	4	5. RESPONSE OPERATIONS	21
GLOSSARY OF TERMS	5	5.1 General	21
1. INTRODUCTION	7	5.2 Incident Command System (ICS)	21
1.1 Background	7	5.3 Secure Human Life, Health and Safety	22
1.2 Mandate	8	5.4 Stem Spill Source	22
1.3 Aim & Objectives	9	5.5 Spill Assessment & Reporting	22
1.4 Technical Scope & Tiered Response	9	5.6 Spill Surveillance and Forecasting	22
1.5 Geographical Scope	11	5.7 Monitor	23
1.6 Participants in the Plan	12	5.8 Containment & Recovery at Sea	23
1.7 Underlying Principles & Protection Priorities	12	5.9 Use of Oil Spill Dispersants	23
1.8 Risk Assessment	13	5.10 Foreshore Protection	23
2. ROLES & RESPONSIBILITIES	15	5.11 Foreshore Clean-up	24
2.1 SPREP	15	5.15 Oiled Wildlife Operations	24
2.2 SPREP Island Member Governments	16	5.13 Oily Waste Management	24
2.3 SPREP Metropolitan Member Governments	16	5.14 Joint Response Operations	25
2.4 Industry	17	5.15 HNS Spill Response	26
3. US OCEANIA REGIONAL CONTINGENCY PLAN (ORCP)	18	6. ADMINISTRATION AND FINANCE	27
4. POLLUTION REPORTS & COMMUNICATIONS	19	6.1 Requests for Assistance	27
4.1 Pacific Regional Marine Spill Reporting	19	6.2 Customs, Immigration & Quarantine	31
4.2 Surveillance & Spill Detection	19	6.3 Logistics	31
4.3 Initial Pollution Reports (POLREPS)	20	6.4 Finances	31
4.4 Situation Reports (SITREPS)	20	7. RESPONSE TERMINATION & POST-SPILL ACTIVITIES	34
4.5 Post-Incident Reports (POSTREPS)	20	7.1 Response Termination	34
		7.2 Equipment Cleaning/Restoration and Return	34
		7.3 Response Evaluation & Debriefing	34
		7.4 Damage Assessment & Monitoring	34
		7.5 Environmental Restoration & Rehabilitation	35

8. PUBLIC INFORMATION	36	10. TRAINING & EXERCISES	39
8.1 Public Relations Officer (PRO)	36	10.1 Regional PACPOL Activities	39
8.2 Press Releases	36	10.2 Specialist Training Courses	39
8.3 Press Conferences	36	10.3 In-Country Exercises	40
8.4 Community Volunteers	37	10.4 Regional Register of Marine Spill Responders	40
9. EQUIPMENT	38	11. ADOPTION, CONTROL & REVISION OF THE PLAN	41
9.1 National Resources	38	11.1 Adoption of the Plan	41
9.2 Regional Resources	38	11.2 Control of the Plan	41
		11.3 Revision of the Plan	41

ATTACHMENTS	42	ATTACHMENT 9: Standard Request for Assistance Form	69
ATTACHMENT 1: PACPLAN Marine Spill Response Contacts	42	ATTACHMENT 10.1: Guideline to Tier 1 & 2 Equipment Stockpile	70
ATTACHMENT 2: Standard Pollution Report (POLREP) Form	48	ATTACHMENT 10.2: Equipment Inventory	72
ATTACHMENT 3: Standard Situation Report (SITREP) Form	49	ATTACHMENT 11: Claims Guide	81
ATTACHMENT 4: Status of the Noumea Convention and Associated Protocol Parties as at July 2012	50		
ATTACHMENT 5: Status of IMO Convention Parties as at 2 January 2013	51	TABLES & FIGURES	
ATTACHMENT 6: Risk Assessment in the Pacific Region	52	TABLE 1: SPREP Member Countries and Territories	
ATTACHMENT 7: List of SPREP Trained Marine Spill Responders as of December 2012	62	TABLE 2: Primary and Secondary Sources of Assistance	
ATTACHMENT 8: Model Memorandum of Understanding or Technical Agreement for Bilateral Co-operation	62	FIGURE 1: Map of Pacific Islands Countries and Territories Region	
		FIGURE 2: Total vessel traffic by frequency	
		FIGURE 3: Incident Command System structure	
		FIGURE 4: Request for Assistance	

GLOSSARY OF TERMS

AIP	Australian Institute of Petroleum
AMSA	Australian Maritime Safety Authority
AMOSC	Australian Marine Oil Spill Centre
CMC	Centre for Marine Conservation
OSRL	Oil Spill Response Limited
FUND Convention	International Convention for the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992
HNS	Hazardous and Noxious Substances
IC	Incident Commander
ICC	Incident Command Centre
IMO	International Maritime Organisation
INTERVENTION	International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties 1969
IOPC Fund	International Oil Pollution Compensation Fund
ITOPF	International Tanker Owners Pollution Federation
Lead Agency	Entity that has operational responsibility for managing the response to a particular marine spill. The Lead Agency will vary according to the size and location of the spill.
London Convention	Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 as amended by the Protocol of 1996
LOS	(International) Law of the Sea
MARPOL 73/78	International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto
PA	Pollution Adviser
POLFUND	National Marine Pollution Fund
NATPLAN	National Marine Spill Contingency Plan
OPRC	International Convention on Oil Pollution Preparedness, Response and Co-operation 1990
OPRC-HNS	Protocol on Preparedness, Response and Co-ordination to Pollution Incidents by Hazardous and Noxious Substances 2000
ORCP	Oceania Regional Contingency Plan
ORRT	Oceania Regional Response Team
PACPLAN	Pacific Islands Regional Marine Spill Contingency Plan
PACPOL	Pacific Ocean Pollution Prevention Programme
POLREP	Pollution Report
Responsible Authority	Government department or authority which has responsibility for administering and enforcing the national marine pollution legislation and for the overall management of the NATPLAN
SITREP	Situation Report

SPC	Secretariat of the Pacific Community
SPREP	Secretariat of the Pacific Regional Environment Programme
SPREP Metropolitan Members	The SPREP non Pacific island Members – Australia, France, New Zealand, United Kingdom and the United States of America
Noumea Convention	Convention for the Protection of the Natural Resources and Environment of the South Pacific Region and related protocols
Noumea Dumping Protocol	Protocol for the Prevention of Pollution of the South Pacific Region by Dumping
Noumea Pollution Emergencies Protocol	Protocol concerning Co-operation in Combating Pollution Emergencies in the South Pacific Region
	TIER ONE SPILL – Spills that are within the response capability and resources of an individual port or oil terminal.
	TIER TWO SPILL – Sized spills that are within the national capability and resources of the individual SPREP member where the spill occurs and the impact or potential impact is limited to the waters within the jurisdiction of that SPREP member only.
	TIER THREE SPILL – Spills that are of a magnitude and/or severity that is beyond the response capability and resources of the individual SPREP member where the spill occurs, and/or spills that impact or threaten to impact within the jurisdiction of two or more SPREP members. PACPLAN is limited to addressing Tier Three spills
UNCLOS	United Nations Convention on the Law of the Sea
U.S.	United States (of America)
USCG	United States Coast Guard

1. INTRODUCTION

1.1 BACKGROUND

Marine pollution is widely recognised as one of the four major threats to the world's oceans, along with climate change, habitat destruction and over-exploitation of living marine resources. Spills of oil and other chemicals into the marine environment, both from ships and land-based sources, is a significant source of pollution.

In a region sometimes called 'Oceania', the health of the ocean is fundamental to the sustainability of all aspects of Pacific island life. The importance of coastal and marine environments to every aspect of the lives of Pacific islanders cannot be overstated, and the impacts of marine spills constitute a major concern for Pacific island peoples. Because of a lack of major land-barriers throughout the Pacific, combined with a complex pattern of trans-oceanic currents, the Pacific Ocean is perhaps the most highly connected and continuous ocean, in terms of water movement, on the planet. This compounds the seriousness of marine pollution for the region. Events in one area can have implications for other areas, as pollutants and contaminants are carried from their sources by ocean movements.

The region is not immune to the challenges of sustainable development and faces the pressures of economic development. Throughout the region there are activities associated with gas and oil exploration, and refineries are situated along the coastline or served by seagoing tanker vessels.

Pacific islands therefore need to work together, through regional arrangements, to address marine pollution. No single country in the region can address this problem in isolation. There are a number of agreements, conventions, instruments, policies and other initiatives that require countries to work co-operatively to address marine pollution and protect the marine environment. At the international level these include: the international *Law of the Sea* (LOS), the *International Convention on Oil Pollution Preparedness, Response and Co-operation 1990* (OPRC 90) and the *OPRC HNS Protocol*.

At the regional level they include the *Convention for the Protection of the Natural Resources and Environment of the South Pacific Region* (the Noumea Convention 1986) and associated Protocols.

The *Secretariat of the Pacific Regional Environment Programme* (SPREP), as part of its role to assist island members to address environmental issues and in accordance with the SPREP Action Plan, has developed a comprehensive programme to address marine pollution. This is called the *Pacific Ocean Pollution Prevention Programme* (PACPOL).

PACPOL has developed a number of initiatives to assist Pacific island members with marine spill prevention and response. Many Pacific Island Countries (PICs) have used the National Marine Spill Contingency Plan (NATPLAN) template to develop their own national plans. Many of these NATPLAN's are still in draft form and need to be formally approved by national processes. Some NATPLAN's still require endorsement by government.

The *Pacific Islands Regional Marine Spill Contingency Plan* or PACPLAN was first endorsed in 2000. It provides the framework for co-operative regional responses to major marine spills in the Pacific Islands region. This includes a description of underlying spill response philosophies and priorities, the roles and responsibilities of relevant organisations, regional and supra-regional linkages, and mechanisms for accessing regional and supra-regional assistance to be utilised in a pollution incident.

1.2 MANDATE

In addition to the international and regional instruments referred to above, the primary mandate for PACPLAN stems from both a specific regional convention and two international conventions outlined below.

Nothing in this PACPLAN is intended to give rise to rights or obligations under international law.

1.2.1 NOUMEA POLLUTION PROTOCOL

The members of SPC adopted the *Convention for the Protection of the Natural Resources and Environment of the South Pacific Region* (the Noumea Convention), with associated Protocols at Noumea, New Caledonia on 25 November 1986. The Convention includes a *Protocol Concerning Co-operation in Combating Pollution Emergencies in the South Pacific Region* (Noumea Pollution Protocol). In 2006 the Noumea Convention Parties adopted two new protocols to replace the Noumea Pollution Protocol to bring them in line with the OPRC Convention and the OPRC-HNS Protocol. The new protocols are the Oil and HNS Protocols and will enter into force when ratified by 5 parties. The current Noumea Protocol 1986 provides a formal framework for co-operation between all members of SPREP when responding to marine spills. The Noumea Pollution Protocol 1986 requires Parties to:

- Take initial action at the national level to respond to pollution incidents (marine spills);
- Co-operate with other Parties in the response to pollution incidents;
- Establish and maintain, within their respective capabilities, the means of preventing and responding to pollution incidents, including;
 - Enacting relevant legislation;
 - Developing and maintaining contingency plans; and
 - Designating a Responsible Authority.
- Exchange information with each other and report all pollution incidents to relevant authorities and other parties whose interests are likely to be affected;
- Provide assistance, within their capabilities, to other Parties who request such assistance, based on an agreement with the requesting Party or Parties and taking into account the technological means available;
- Facilitate the movement of personnel and materials needed for response; and
- Develop and maintain, where appropriate, sub-regional and bilateral arrangements for preventing and responding to pollution incidents.

The full text of the Noumea Convention 1986 and associated Protocols can be obtained from SPREP. There are 12 parties to the Noumea Convention and Pollution Protocol. Attachment 4 has a full list of Noumea Convention and associated Protocol Parties.

1.2.2 OPRC CONVENTION AND OPRC-HNS PROTOCOL

At the international level, the International Maritime Organisation (IMO) prepared the *International Convention on Oil Pollution Preparedness, Response and Co-operation 1990* (OPRC Convention). The OPRC Convention and Protocol have requirements for Parties similar to those of the Noumea Pollution Protocol 1986, as outlined above. As of June 2012, there were 5 PICs party to the OPRC Convention and 2 PICs party to the OPRC-HNS Convention. Details can be found at Attachment 5.

1.3 AIM AND OBJECTIVES

The Aim of PACPLAN is:

To prevent/minimise damage to marine and coastal environments and resources from marine spills, and to provide systems, frameworks and guidelines to assist with response and recovery of the environment and resources damaged by marine spills in the Pacific islands region.

The Objectives of PACPLAN are:

- To promote and implement regional co-operation in planning and training for marine spill response, and in the actual prevention of, and response to, marine spills;
- To facilitate actions and cooperation consistent with the Noumea Pollution Protocol 1986, the OPRC Convention and the OPRC-HNS Protocol at the operational level by all SPREP members, including those that are not yet parties to these instruments;
- To provide systems for the detection and reporting of marine spills within the area covered by the plan, including communications networks;
- To outline the proactive and counter-measures available to contain and minimise the impacts of a spill on life, the environment, heritage, cultural and economic interests;
- To outline the mechanism and procedures by which SPREP island members may request assistance, in the form of specialised equipment and technical experts; from each other, from SPREP metropolitan members, or from industry;
- To provide guidance for the recovery of costs of responding to marine spills;
- To outline arrangements for resourcing maintenance of PACPLAN and associated systems by SPREP; and
- To provide a platform for information sharing and as a learning tool.

1.4 TECHNICAL SCOPE AND TIERED RESPONSE

Traditionally, spill response plans tend to focus exclusively on oil spills. Internationally, there is increasing recognition that it is more effective and efficient to integrate oil spill response arrangements with those for all pollutants, including oil and hazardous and noxious materials (HNS) as defined in the OPRC-HNS Protocol.

PACPLAN therefore covers the response to spills into the marine environment of all forms of pollutants. However, it retains a focus on oil spills, as oil is the main pollutant likely to be spilled in the region.

PACPLAN covers spills into the marine environment from all sources.

As a regional plan, PACPLAN applies only to spills where regional co-operation and/or supra-regional assistance are needed. Under PACPLAN, such spills are classified as Tier Three spills. PACPLAN does not cover Tier One and Tier Two spills.

For the purposes of PACPLAN, Tier One, Two and Three spills are defined as follows:

TIER ONE

- Spills that are within the response capability and resources of industry, i.e. an individual port, oil terminal or vessel within the SPREP island member where the spill occurs.

Tier One spills should be covered by individual oil companies, port administrators and vessel operators. Individual oil companies, port administrations and vessel operators should develop, implement and maintain contingency plans.

TIER TWO

- Spills that are within the national capability and resources of the individual SPREP island member government where the spill occurs.

Tier Two spills should be covered by National Marine Spill Contingency Plans (NATPLANs). Each National government should develop, implement and maintain a NATPLAN, through a National Marine Pollution Committee. The committee should comprise as a minimum: the national administrations for maritime transport, environment, fisheries/marine resources and disaster management and the oil industry.

TIER THREE

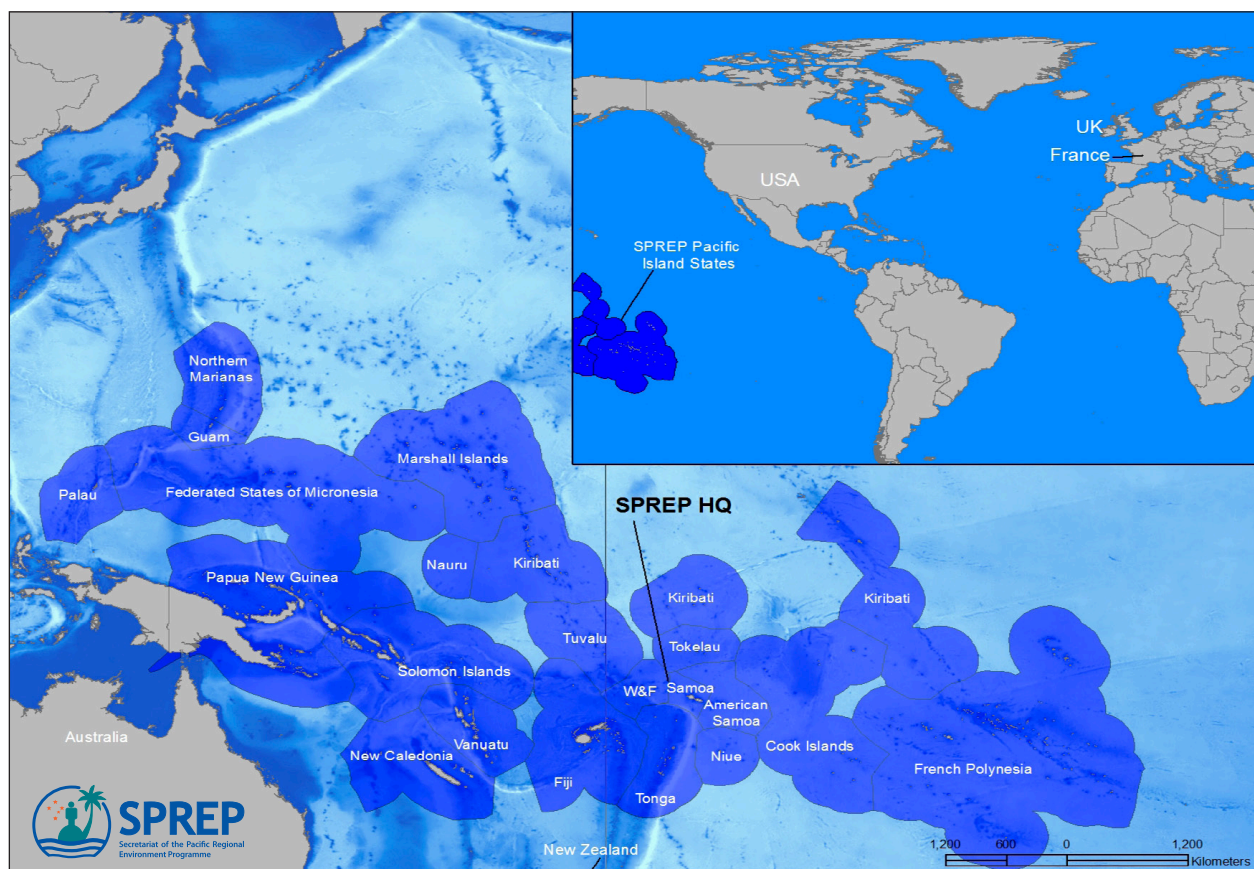
- Spills that are beyond the response capability and resources of the individual SPREP island member where the spill occurs; and/or
- Spills that impact or threaten to impact within the jurisdiction of two or more SPREP island members.

Response to Tier Three spills should initially be according to the relevant NATPLAN, then supported by PACPLAN. The response escalation process is detailed in respective Pacific island member government NATPLANs.

Set quantities and sizes of spills have intentionally not been used in the definition of Tiers. In some instances a relatively small spill may fit the Tier Two or even Tier Three category. Classification depends on the composition and source of the spill, the location and response capabilities and resources of the SPREP island member where the spill occurs, the prevailing conditions at the time of the spill, and the types of environments impacted or threatened.

Allocation of any one spill to a particular Tier can only be done at the time of the spill, according to an assessment by the Responsible Authority of the SPREP island member where the spill occurs.

In reality spills do not fall into convenient categories, and the boundaries between Tiers will be blurred. Responsible Authorities, in consultation with the Lead Agency, should always be prepared to involve the next highest Tier from the earliest stages, as it is easier to stand down an alerted system than to escalate a response by calling up the next level of support.

FIGURE 1 – Map of PICT Region

1.5 GEOGRAPHICAL SCOPE

The geographical scope of PACPLAN, referred to as the PACPLAN Area, is the Pacific islands region, as defined by the coastlines and all marine waters within the EEZs of the 21 Pacific Island Countries and Territories which are members of SPREP (See Table One and Figure One – Map on previous page).

SPREP island members are grouped into two categories, the 14 independent and semi-independent countries (Pacific Island Countries) and the seven territories (Pacific Island territories – Table One).

In addition to the 21 SPREP island members, there are five metropolitan countries that are also members of SPREP (Table One). They do not constitute part of the PACPLAN area of response operations, but play a vital role in implementing PACPLAN (refer sections 2.3 and 6.1.3).

TABLE 1 – SPREP Member Countries and Territories

SPREP ISLAND MEMBERS			SPREP METROPOLITAN MEMBERS
PACIFIC ISLAND COUNTRIES		PACIFIC ISLAND TERRITORIES	
Cook Islands	Palau	American Samoa (U.S.)	Australia
Fiji Islands	Papua New Guinea	Northern Mariana Islands (U.S.)	France
Kiribati	Samoa	French Polynesia (France)	New Zealand
Marshall Islands	Solomon Islands	Guam (U.S.)	United States of America
Federated States of Micronesia	Tonga	New Caledonia (France)	United Kingdom
Nauru	Tuvalu	Tokelau (NZ)	
Niue	Vanuatu	Wallis and Futuna (France)	

1.6 PARTICIPANTS IN THE PLAN

The Participants to the PACPLAN are the 26 SPREP members, working in partnership with industry.

1.7 UNDERLYING PRINCIPLES AND PROTECTION PRIORITIES

PACPLAN is founded on the following general principles:

- Every effort should be made by industry and government to prevent spills of oil and other hazardous and noxious substances from occurring, as the highest priority;
- Despite prevention measures, spills will occur from time to time, hence the need to have contingency plans in place to deal effectively with such spills, at the local, national and regional/international level. PACPLAN constitutes the regional/international response plan for the Pacific islands region; and
- The response to marine spills under PACPLAN should always seek to maximise co-operation, co-ordination and integration between government and industry, and to adopt the most cost-effective, efficient and practicable response options available.
- In the event of a marine spill requiring a response to be mounted under PACPLAN, the following priorities for protection should be adhered to:
 - Human life, health and safety;
 - Biological habitat;
 - Rare and endangered species;
 - Cultural resources;
 - Commercial resources; and
 - Non-commercial property and amenity.

Human life, health and safety is always the highest priority with individual members defining their own order of priorities for protection thereafter.

Within these priorities, marine and coastal environments and resources have varying environmental sensitivities. This requires further prioritisation of spill response efforts. The grading of environmental sensitivity requires assessment at a much larger scale than can be provided by a regional plan such as PACPLAN. Individual National Marine Spill Contingency Plans (NATPLANS) should designate environmental sensitivities for the coastal and marine areas of each SPREP island member. Guidance on how to conduct the grading is provided in the IPIECA/IMO publication Sensitivity Mapping for Oil Spill Response 2011.

The response to any spill carried out under PACPLAN should be consistent with the environmental sensitivity grading contained in the NATPLAN(s) for the SPREP island member(s) where the spill has occurred.

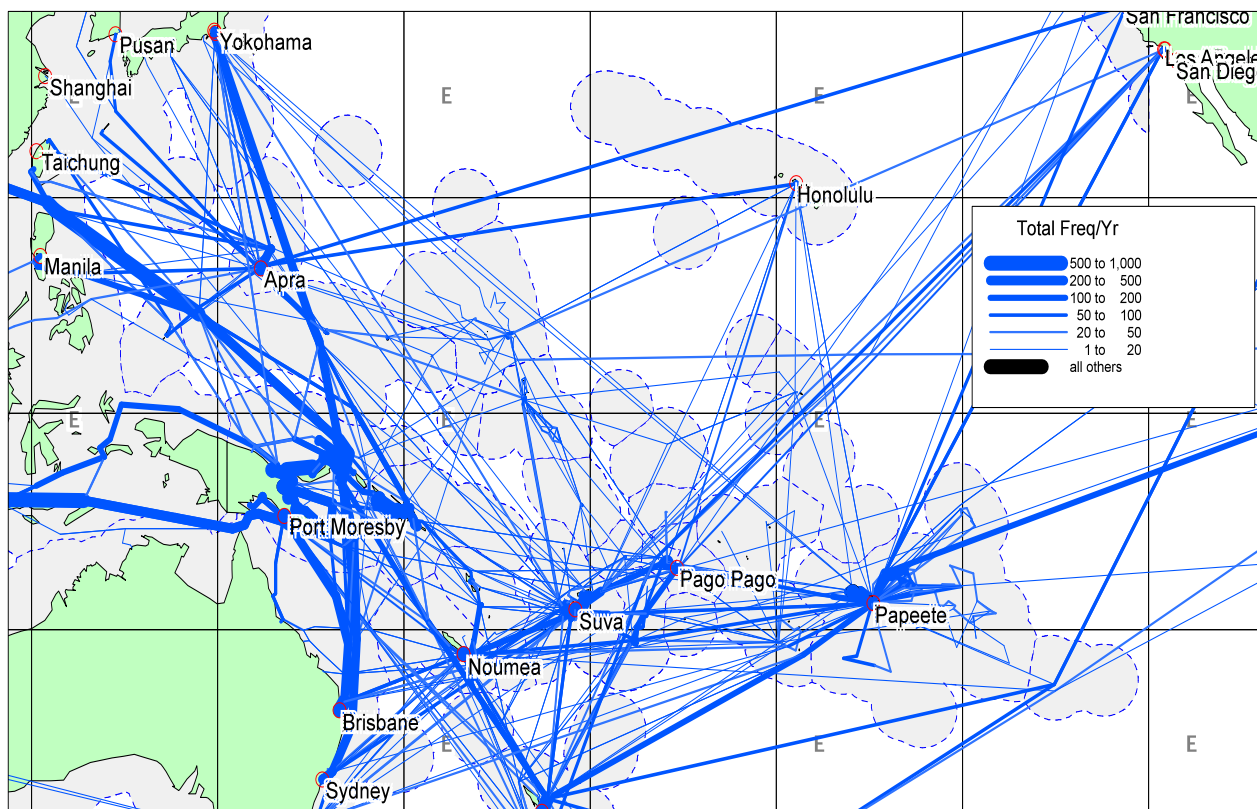
1.8 RISK ASSESSMENT

The PACPLAN Area is host to several categories of seagoing traffic, which can be grouped as follows:

- Transit shipping: Ships that pass through the region without stopping en-route to other destinations;
- International shipping (as distinct from transit shipping): Ships calling at the major ports of the region from outside the region, either with incoming cargo or tourists (cruise ships), or to load exports;
- Regional shipping: Ships trading (both cargo and passengers) between the countries and territories within the region;
- Domestic shipping: Ships trading (both cargo and passengers) within each country and territory in the region;
- Foreign fishing fleet: Fishing vessels from distant water fishing nations operating within the region;
- Domestic fishing fleet: Fishing vessels from the Pacific Islands themselves; and
- Miscellaneous: Private vessels, yachts and special purpose vessels such as warships and research ships.

Ship grounding is the most common casualty type with significant pollution consequences of concern to PACPLAN. This priority risk was identified in the 2003 Marine Pollution Risk Assessment for the Pacific Islands Region. The loss of heavy fuel oil bunkers is considered the greatest oil spill threat to the region. Recent incidents include the M/V Forum Samoa II which grounded at the Apia, Samoa harbour entrance in 2009; the M/V Rena which ran aground on Astrolabe Reef, New Zealand in 2011; and the M/V Pacific Adventurer in Queensland, Australia in 2009.

FIGURE 2 – Total vessel traffic by frequency from the 2003 Marine Pollution Risk Assessment



The 2003 study assessed the potential pollution risk at two levels: 1) regional level to EEZ scale, and 2) port scale.

At the EEZ to regional scale, there are clusters of high risk (Figure 2 and Attachment 6) in Fiji, French Polynesia, the Solomon Sea shores of Papua New Guinea and the Solomon Islands. The north/south passages east of Papua New Guinea (Jomard entrance, Pioneer Channel) also form a high risk corridor. There are smaller clusters in Tonga, Samoa, American Samoa, Vanuatu and the corridor of Chuuk, northward past Guam, and the Northern Mariana Islands. The risks to these areas arise mainly from transit shipping and international shipping.

At the ports scale, the ports with the highest potential for oil pollution incidents are located in Papeete and Madang. The port of Port Moresby with the Napa Napa refinery is considered high risk while Noumea, Suva and Vuda/Lautoka have a moderate oil pollution risk.

Risk of oil pollution from WWII wrecks is also of major concern to many Pacific island nations with over 800 WWII wrecks in PICTs EEZs. The largest number of WWII wrecks can be found in PNG, Solomon Islands, FSM and Palau. Because of the additional risk of unexploded ordinances, sensitivity that most of the vessels are war graves, and sovereign immunity, response to pollution incident from a WWII wreck involves particular issues and would typically involve coordination among the interested states (e.g. the flag state and the coastal state). SPREP can provide technical assistance upon request in the event of an incident of this nature. The response to the USS *Mississinewa* at Ulithi Atoll in 2002 is a case study of a response in these circumstances.

2. ROLES AND RESPONSIBILITIES

2.1 SPREP

The Secretariat of the Pacific Regional Environment Programme (SPREP), located in Apia, Samoa, has the following roles and responsibilities under PACPLAN:

- Maintaining and updating the Plan, including;
 - Staying abreast of developments and changes that affect the content of the Plan and notifying member countries before amending the Plan;
 - Managing the distribution of the Plan, which is a controlled document;
 - Maintaining a register of holders of the Plan; and
 - Ensuring that all holders receive updates to the Plan as they occur.
- Organising and managing PACPOL (and PACPLAN) activities, including training in marine spill response, desktop exercises of PACPLAN and regional co-ordination meetings (refer Section 10);
- Providing/co-ordinating scientific and environmental advice to member governments in the event of a spill;
- Assisting SPREP island members with requests for external assistance in the event of PACPLAN being activated (refer Section 6.1);
- Receiving, co-ordinating and disseminating reports to affected parties and reporting annual spill statistics to interested parties (refer Section 4.1);
- Maintaining and updating the SPREP Guidelines and Template for National Marine Spill Contingency Plans (SPREP NATPLAN Guidelines), and assisting SPREP island members to develop and implement NATPLANS;
- Maintaining a regional inventory of available marine spill response equipment;
- Maintaining a Regional Register of SPREP trained Marine Spill Responders. The list of trained marine spill responders is in Attachment 7 (refer Section 10.4);
- Generally assisting SPREP island members in the prevention, planning and response to, marine spills; and
- Setting indicators on preparedness for SPREP island members.

SPREP will develop and maintain the necessary staff and material resources to enable it to fulfil these responsibilities, within the resources made available from the general PACPOL programme (refer Section 6.1.2).

2.2 SPREP ISLAND MEMBER GOVERNMENTS

Each SPREP island member government (including both Pacific Island Countries and Territories) has the following roles and responsibilities under PACPLAN, in accordance with national capacity:

- Maintaining a National Marine Pollution Committee (National Committee) whose tasks will include developing and maintaining a NATPLAN, and necessary sub-plans for local areas such as individual ports;
- Developing national marine pollution legislation;
- Designating a Responsible Authority, that has legal responsibility for administering and enforcing the national marine pollution legislation and for the overall management of the NATPLAN. Ideally, the Responsible Authority should be the national maritime transport administration;
- Designating a Lead Agency, that has operational responsibility for managing the response to marine spills. The Lead Agency will vary according to the size and location of the spill;
- Reporting all marine spills to SPREP, in accordance with Section 4 of PACPLAN;
- Taking effective action to respond to marine spills that occur within its jurisdiction;
- Co-operating with and assisting neighbouring countries and territories in the response to marine spills;
- Facilitating the provision and receipt of any external assistance that might be requested or provided (refer Section 6);
- Considering, in the case of member governments that are not bound by the Noumea Pollution Protocol, the OPRC Convention and the OPRC-HNS Protocol, whether to become bound by them, consistent with national and international law, and complying with the national government obligations of the Noumea Pollution Protocol and the OPRC Convention as well as the OPRC-HNS Protocol as applicable (refer Sections 1.1 and 1.2);
- Reporting to SPREP any changes in circumstances, including levels of risk of marine spills, capability to manage marine spills, internal administrative arrangements and contact details, that may require revision and updating of PACPLAN; and
- Participating in PACPOL activities.

2.3 SPREP METROPOLITAN MEMBER GOVERNMENTS

Subject to their capabilities and the availability of relevant resources each SPREP Metropolitan member government (Australia, France, New Zealand, United Kingdom and the United States), has the following roles and functions under PACPLAN:

- Assisting SPREP island members in preventing marine spills and planning and preparing for the response to marine spills. This assistance should be provided through SPREP, under the auspices of PACPOL, in the form of financial support, support-in-kind and/or technical assistance or advice for relevant PACPOL projects, including training and equipment acquisition projects;
- Assisting SPREP island members with personnel, equipment and technical advice, when such assistance is requested and in accordance with Section 6 of PACPLAN. Such technical advice can be of great value and can often be provided quickly and at no or low cost to the Metropolitan member government; and
- Participating in PACPOL activities.

2.4 INDUSTRY

Industry facilities such as oil terminals, ports and harbours, shipping and fishing companies operating in the region have the following roles and responsibilities under PACPLAN:

- Prevent spills from tankers, vessels, ports, terminals, depots and other facilities owned and/or operated by the companies;
- Immediately reporting all marine spills from their facilities both to the Lead Agency/Responsible Authority in the country/territory where the spill occurs, in accordance with Section 3 of PACPLAN and the relevant NATPLAN;
- Developing and maintaining local marine spill response plans, for individual tankers, vessels, ports, terminals, depots and other facilities owned and/or operated by the companies which are potential sources of spills, and ensuring that these plans are compatible and integrated with relevant NATPLANS;
- Establishing, storing and maintaining stockpiles of marine spill response equipment for individual tankers, vessels, ports, terminals, depots and other facilities owned and/or operated by the companies, with the types and amounts of equipment being appropriate to the level of risk at each facility;
- Ensuring that staff are appropriately trained in marine spill prevention and response;
- Taking effective action to respond to marine spills that occur at industry facilities;
- Co-operating with, and assisting governments in the response to marine spills, in the form of personnel and/or equipment, when such assistance is requested and in accordance with each country/territory's NATPLAN;
- Providing the resources of industry Tier 3 providers through the Global Response Network (including AMOSC and/or OSRL) (refer Section 6.1.4);
- Establishing and maintaining linkages with industry OSROS's (Oil Spill Response Organisations) such as AMOSC and OSRL (through membership) for the provision of the OSRO support to an industry based spill, or by requesting Pacific Island governments;
- Actively participating in the National Committees in each SPREP island member country and territory, and in planning, exercises and training activities; and
- Participating in PACPOL activities.

3. US OCEANIA REGIONAL CONTINGENCY PLAN (ORCP)

Under the United States (U.S.) *Oil Pollution Act of 1990* (OPA 90), Regional Response Teams (RRT's) are established for various regions of the United States jurisdiction, including an *Oceania Regional Response Team* (ORRT) for the United States Pacific island territories. These comprise the Territory of American Samoa, the Territory of Guam, the State of Hawaii and the Commonwealth of the Northern Mariana Islands.

ORRT is an inter-agency team comprising U.S. Federal, State and Local government agencies chaired jointly by District 14 of the U.S. Coast Guard (USCG) in Hawaii and Region 9 of the U.S. Environmental Protection Agency (USEPA) in San Francisco. ORRT advises on response planning and actual responses to marine spills in the United States Pacific island territories.

ORRT has developed an Oceania Regional Contingency Plan (ORCP), and local Area Committees have developed Area Contingency Plans for Hawaii, American Samoa, and the Mariana Islands (Guam and CNMI). Responses to marine spills in the United States Pacific island territories are conducted under these plans, consistent with the federal National Contingency Plan, and not PACPLAN.

However, the United States Pacific island territories (excluding Hawaii) may request external assistance from non-U.S. participants under PACPLAN, in accordance with Section 6. Like-wise, non-U.S. participants may request assistance from the United States and/or United States Pacific island territories under PACPLAN, in accordance with Section 6.

4. POLLUTION REPORTS AND COMMUNICATIONS

4.1 PACIFIC REGIONAL MARINE SPILL REPORTING

Under PACPLAN, SPREP maintains marine spill reporting through its office in Apia, Samoa.

All reports should be transmitted through the SPREP email address or fax number, providing a focal point for receiving and relaying information concerning any marine pollution incident in the region. This information will then enable:

- Reporting through Pollution Reports (POLREPS) of all marine spills in the region;
- Alerting of other entities potentially affected by a spill; and
- Monitoring the progress of a spill through Situation Reports (SITREPS), allowing updates to be provided to affected parties.

The contact details for reporting are contained in Attachment 1 and are provided on the standard POLREP and SITREP transmission forms (Attachment 2 and 3).

It should be noted that SPREP is NOT an emergency response facility, and is only functional during normal business hours. Its main purpose is for the collection, analysis and dissemination of spill data. The Responsible Authorities in each country/territory should ensure that national marine spill emergency reporting and alerting systems are established and maintained (refer Sections 4.2. – 4.5.).

4.2 SURVEILLANCE AND SPILL DETECTION

The initial detection of marine spills can be planned for in advance. All personnel in various industries and government agencies involved in tasks where it is possible to be the first to observe a spill, need to be able to do so. These include but are not restricted to ships' crew, aircraft crew, oil company employees, port personnel and members of the general public, who should report a spill to the relevant authorities. The requirement for reporting spills to the relevant authorities should be mandated under national marine pollution legislation, including penalties for failure to report a spill.

In order to enable spills to be reported, it is important for the Responsible Authority in each Pacific Island Country/Territory to broadly publicise relevant pollution emergency contact numbers. Methods of publicising contact numbers include the emergency section of telephone directories, notices to mariners; notices to aircrew, signage at boat ramps, marinas and ports, bumper/boat stickers and educational posters and pamphlets.

PACPOL utilises existing surveillance platforms and programmes such as the Pacific patrol boats programme, the Forum Fisheries Agency (FFA) aerial surveillance programme and routine civil aviation observations.

4.3 INITIAL POLLUTION REPORTS (POLREPS)

Any spill should be immediately reported to the Responsible Authority. (Attachment 1 provides contact details for the Responsible Authorities in each Pacific Island Country/territory). This includes any spill observed by a ship's Master or crew, aircraft crew, oil company employee, port personnel or any other person observing a marine spill.

The Responsible Authority should complete a POLREP, using the standard format contained in Attachment 2, and transmit this to SPREP via email or facsimile. POLREPS should be transmitted to SPREP for **all spills**, not just Tier Three spills.

The Responsible Authority in each country/territory should also disseminate all POLREPS to all affected parties, including those whose interests are potentially affected by the spill, such as neighbouring governments, if it appears likely that the spill may affect their sea areas and/or shorelines.

4.4 SITUATION REPORTS (SITREPS)

In order to provide periodic updates on pollution incidents, the Responsible Authority in the country/territory where the spill has occurred, should transmit SITREPS to SPREP and all affected parties via email or facsimile at regular intervals throughout the spill, using the standard format contained in Attachment 3.

4.5 POST-INCIDENT REPORTS (POSTREPS)

After a pollution incident, the Responsible Authority of each government affected should prepare a brief report including:

- Assessment of the response operation, including reference to equipment used, its effectiveness, additional equipment, and training needs;
- Documentation of clean-up costs;
- Assessment of environmental and economic damage;
- Details of problems encountered; and
- Recommendations regarding amendment or revision of NATPLANS/PACPLAN.

When each government has compiled these individual reports, the Incident Commander and other personnel should liaise with SPREP to review their collective experiences and compile an overall Post-incident Report (POSTREP) that will include the root causes and lessons learnt for all SPREP members, including as appropriate, any recommendations for revising PACPLAN (in accordance with procedures in Section 11).

5. RESPONSE OPERATIONS

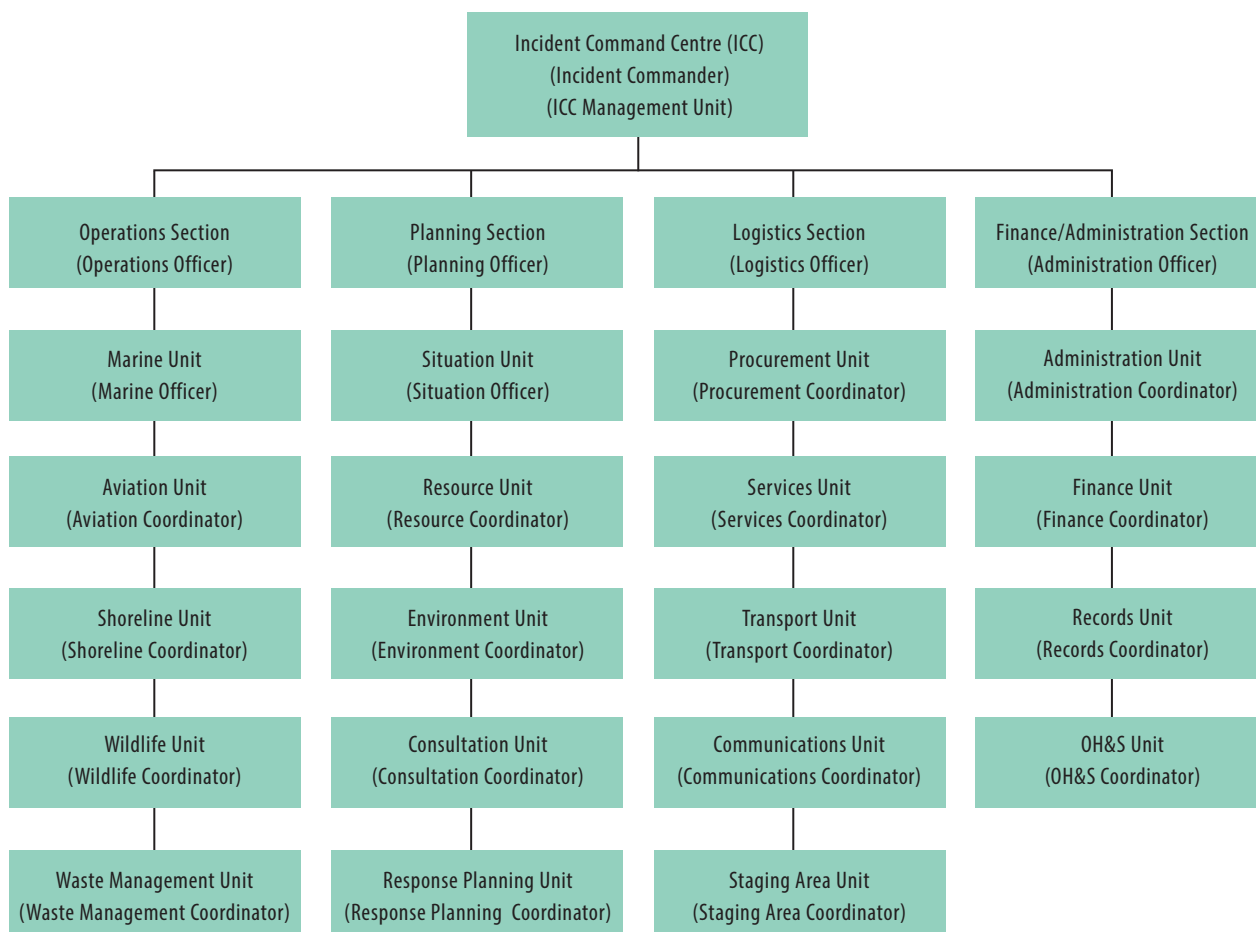
5.1 GENERAL

It is not the purpose of PACPLAN to provide detailed technical information on the specific methods and techniques that should be used to respond to a marine spill. These should be provided in the respective NATPLANS of each Pacific island country and territory. However, in responding to a marine spill, a logical sequence of actions should be followed as outlined in Sections 5.3 to 5.13.

5.2 INCIDENT COMMAND SYSTEM (ICS)

Response operations cannot be effectively carried out unless there is a clear organisational structure to command and control the response. This structure should be established by the designated Lead Agency of the government in each country/territory, and detailed within each NATPLAN.

FIGURE 3 – Incident Command System (ICS) Structure



Many developed countries, including Australia, New Zealand and the U.S. have adopted a standard Incident Command System (ICS). To ensure consistency and inter-operability, a simplified version of the ICS is the preferred arrangement for SPREP island members.

The overall structure of the preferred ICS is depicted in Figure 3. The Incident Commander is the ultimate decision-making authority in relation to spill response activities, and should be vested with the necessary decision-making powers. Further details on ICS, including a breakdown of the roles and responsibilities of the various groups, are provided in the SPREP NATPLAN Guidelines.

5.3 SECURE HUMAN LIFE, HEALTH AND SAFETY

The highest priority when a spill has occurred is to take action to ensure that the risk to human life, health and safety is minimized to as low as reasonably practical. This should take precedence over all other actions.

5.4 STEM SPILL SOURCE

A priority action is to attempt to stop the flow of oil (or other pollutant in the case of spills other than oil), in order to minimise the potential size, extent and severity of the spill.

5.5 SPILL ASSESSMENT AND REPORTING

The nature, size, extent, severity and likely movement of the spill should be assessed, and a POLREP completed and transmitted urgently to the Lead Agency and SPREP, in accordance with Section 4.2.

Assessment of the spill should include an attempt to classify it as Tier One, Two or Three (refer Section 1.3), and determine whether or not PACPLAN should be activated. The assessment of Tier levels may change over time and should be periodically reviewed during the spill.

5.6 SPILL SURVEILLANCE AND FORECASTING

It is vital that the likely movement of the spill is assessed, in order to identify possible impact areas and determine the most appropriate response options. Visual observation of any spill is essential and the Responsible Authority under the respective NATPLAN(s) should use those resources identified in the NATPLAN(s), such as charter, military, or commercial aircraft, to assess and monitor the movement of the spill. Advice on this can be sought from SPREP.

Meteorological and hydrographic data should be obtained by the Responsible Authority(ies) and analysed to obtain predictions of expected spill movement. Local knowledge from people such as fishermen and mariners should be used as a valuable additional source of expertise on likely spill movement.

Information on the availability of spill trajectory modelling systems for various areas can be requested from SPREP metropolitan members, in accordance with Section 6.

5.7 MONITOR

Should surveillance and forecasting indicate that the spill is unlikely to impact on sensitive areas and is likely to remain in open water, then the best option may be to leave the spill alone, allowing natural physical and biological degradation to occur.

However, it is vital that the movement of the spill is closely monitored, through continuing surveillance and forecasting (as per Section 5.6). The next stage of response operations should be activated if there is the slightest possibility of a pollutant impact on a sensitive area (s).

5.8 CONTAINMENT AND RECOVERY AT SEA

Should surveillance and forecasting indicate that the spill may impact on sensitive areas, the possibility of containing and recovering the oil to prevent such impact should be pursued. The techniques and equipment available for containment and recovery should be outlined in the relevant NATPLAN(s) for the country/territory(ies) affected by the spill.

The ability to conduct effective containment and recovery operations will be limited by the nature of the spill, available equipment, prevailing conditions and logistical considerations. In many instances, especially in open water, containment and recovery may not be feasible.

5.9 USE OF OIL SPILL DISPERSANTS

Another possible option to prevent or minimise the spill from impacting on the coast is to disperse it at sea, using chemical dispersants. The techniques and equipment available for the application of dispersants should be outlined in the relevant NATPLAN(s) for the country/territory(ies) where the spill has occurred.

The use of dispersants should only occur under strict supervision and under authority of the IC (SPREP can provide advice), and in accordance with *SPREP Guidelines On the Use of Oil Spill Dispersants* (available from SPREP and contained in the SPREP NATPLAN Guidelines), taking into account the IMO Dispersant Guidelines.

5.10 FORESHORE PROTECTION

In most circumstances, despite best efforts to contain and recover and/or disperse a spill at sea, a weather-driven spill is highly likely to impact on coastal environments and resources.

Efforts will therefore be needed to protect foreshores. Options include the use of oil spill booms to physically prevent oil from impacting on the foreshore, or to direct it to preferred collection points (such as a sandy beach), where it can be recovered.

The techniques and equipment available for foreshore protection should be outlined in the relevant NATPLAN(s) for the country/territory(ies) where the spill threatens to impact.

The ability to conduct effective foreshore protection operations will be limited by the nature of the spill, available equipment and personnel, prevailing conditions and logistical considerations. In virtually every situation, it will only be feasible to protect a relatively small area of foreshore. It is therefore critically important to clearly establish protection priorities, in accordance with the relative environmental sensitivities and resource values of the potentially threatened coastal environments and resources.

The designation of environmental sensitivity grading should involve assessment at a much larger scale than can be provided by a regional plan such as PACPLAN. Individual NATPLANS should designate relative environmental sensitivities for coastal and marine areas, and foreshore protection operations should give priority to protecting the most sensitive coastal environments and resources.

In the event that detailed environmental sensitivity grading and protection priorities are not available, the following general protection priorities should be used, consistent with Section 1.5 of PACPLAN:

- Biological habitat;
- Rare and endangered species;
- Cultural resources;
- Commercial resources; and
- Non-commercial property and amenity.

5.11 FORESHORE CLEAN-UP

In the event that a spill does impact on coastal resources and environments, foreshore clean-up operations may be needed. However, before proceeding with a clean up, the option of leaving the oil (or other pollutant) alone and allowing natural physical and biological degradation to occur, should be evaluated.

The techniques and equipment available for foreshore clean up should be outlined in the relevant NATPLAN(s) for the country/territory(ies) where the spill has impacted. An important consideration during foreshore clean up is to ensure that clean up operations do not cause greater environmental damage than the spill itself (for example heavy machinery damaging sand-dunes, use of dispersants on foreshores driving oil into the substrate etc.).

5.12 OILED WILDLIFE OPERATIONS

It is highly likely that wildlife will become contaminated in the event of a spill, including sea birds and shorebirds, marine reptiles (e.g. nesting turtles) and possibly marine mammals.

The techniques and equipment available for rescuing, cleaning and rehabilitating affected wildlife should be outlined in the relevant NATPLAN(s) for the country/territory(ies) where the spill has impacted. Because of the complexity of such operations, it may be appropriate to have a separate oiled wildlife plan as a subset of each NATPLAN.

The status of wildlife species as rare, threatened and/or endangered under international biodiversity and species protection conventions and classification systems (e.g. IUCN Red List Categories) should be considered in prioritising oiled wildlife response. Requests for assistance should be made in accordance with Section 6.

5.13 OILY WASTE MANAGEMENT

An often difficult problem created by oiled foreshore clean-up is the generation of quantities of recovered oil and oily waste, which needs to be treated, recycled and disposed of. The problems of oily waste management are exacerbated on small islands such as those of the region, due to severe limits on management options.

Oily waste management arrangements should be outlined in the relevant NATPLAN(s) for the country/territory(ies) where the spill has impacted.

In many circumstances in the Pacific islands region, the best option may be to ship oily waste off the island that has been impacted, to a destination which has the proper waste management facilities. This option may require some form of external assistance, which may be made in accordance with Section 6.

The transboundary movement (i.e. shipment between countries) of waste oil and oily wastes is regulated under two conventions, one global and the other regional. The global convention is the *“Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal”* (the Basel Convention). The regional convention is the *“Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region”* (the Waigani Convention).

Any shipment of waste oil and/or oily waste collected from a spill clean-up should comply with these two conventions. Technical advice can be provided by SPREP in accordance with Section 6.

5.14 JOINT RESPONSE OPERATIONS

The response to some marine spills under PACPLAN may need to involve joint response operations by two or more coastal States i.e. SPREP island member governments and the vessel flag State. Such situations include:

- A spill within one jurisdiction which moves or threatens to move into an adjacent jurisdiction(s); and
- A spill in international waters which moves or threatens to move into two or more adjacent jurisdictions.

Under these circumstances, the government whose waters are closest to the pollution incident should generally assume the lead role and report the spill to SPREP. This government should also track the spill and perform any necessary initial response. The flag State of any vessel involved should be notified immediately and the response coordinated with that State as well.

The Responsible Authority should inform neighbouring government(s) and these should activate their own response plans in close co-ordination with the government that has assumed the lead role.

Any government may escalate the response by calling for assistance from other SPREP island members, metropolitan members, industry facilities and/or other external parties, in accordance with Section 6.

In the event that the spill moves across national sea boundaries, an agreement or arrangement should be reached between the governments concerned for the orderly transfer of the lead role and on-scene co-ordination function.

In preparation for possible joint operations, neighbouring countries/territories may wish to develop joint marine spill response plans and enter into bilateral or multilateral Memorandums of Understanding (MoU) or Technical Agreements, which, amongst other things, should:

- Clearly define command and liaison structures for joint response operations;
- Outline procedures for co-operative use of vessels, aircraft and spill response equipment including logistical considerations;
- Identify agreed protection priorities; and
- Provide arrangements for marine operations in, or overflying of, each other's territory.

Surveillance flights to evaluate or assist in the response to marine spills may need to involve the overflight of territorial and internal waters of another government. In order to optimise the use of aerial resources, each government should make advance arrangements with neighbouring governments for the rapid granting of permission for overflights and for the use of their airport facilities. Such arrangements should be included in respective NATPLANS and any applicable joint response plans.

Attachment 8: *Model Memorandum of Understanding for Bilateral Co-operation* provides a model of a MoU or TA that countries/territories may use as the basis for developing their joint response arrangements.

5.15 HNS SPILL RESPONSE

As outlined under Section 1.3, PACPLAN is designed to cover the response to spills into the marine environment of all types of pollutants, including oil, hazardous and noxious substances (HNS).

However, technical details within PACPLAN relate primarily to marine oil spills. This reflects the fact that oil is the main pollutant likely to be spilled in the region, and the fact that the discipline of oil spill response is far more developed and advanced than those of HNS spill response.

In the event of a HNS spill within the PACPLAN Area, the general procedures and arrangements of PACPLAN should be followed. In addition, the NATPLAN of each SPREP island member, if developed in accordance with the SPREP NATPLAN Guidelines, should cover the response to HNS spills. The NATPLANS should therefore outline the techniques and equipment available for HNS spill response in each country/territory.

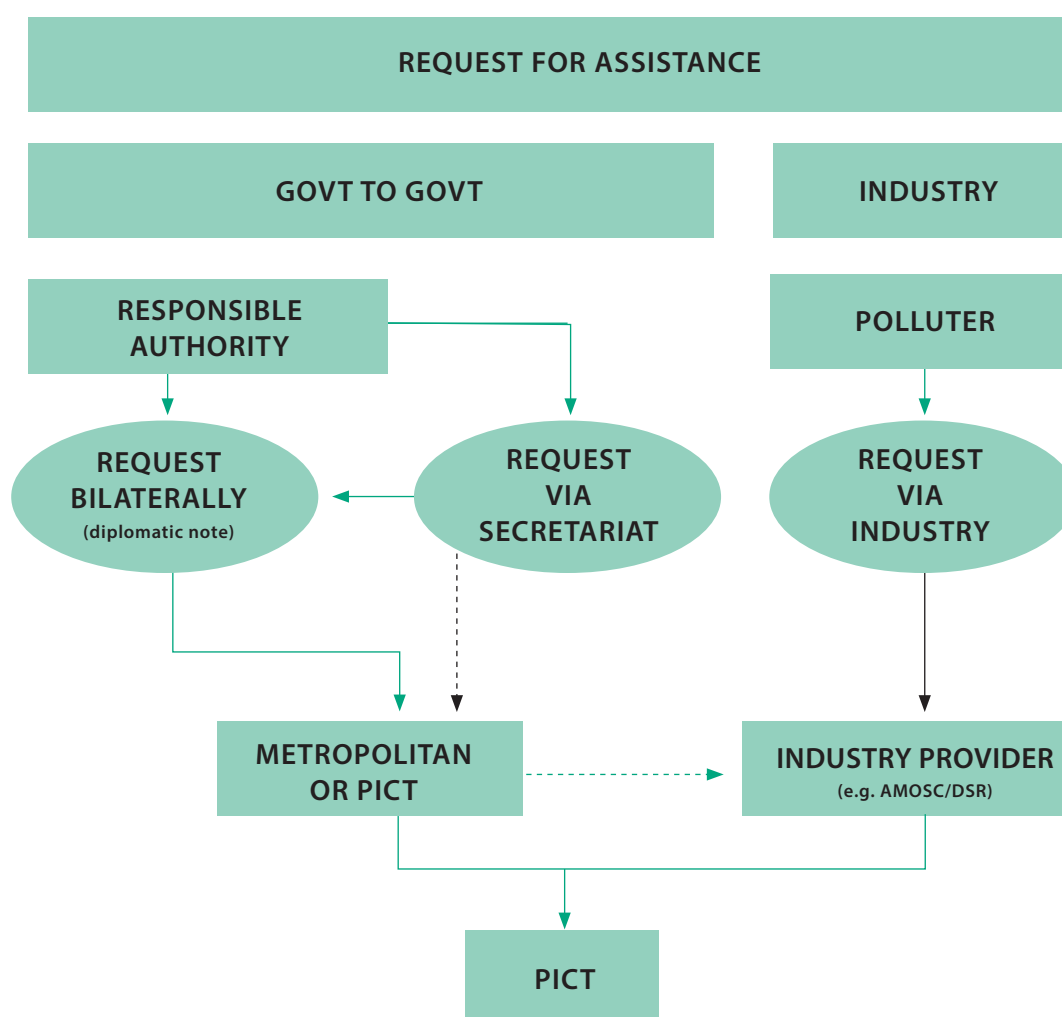
Should a SPREP island member where the HNS spill has occurred need technical advice and assistance with the response, this should be requested in accordance with Section 6. The response capabilities available from SPREP metropolitan members and industry providers should be collated as part of the capability listing in Attachment 10.

6. ADMINISTRATION AND FINANCE

6.1 REQUESTS FOR ASSISTANCE

The Responsible Authority of each island member is the only authority authorised to initiate a request for external assistance under PACPLAN. Once the Responsible Authority assesses a spill to be a Tier Three spill (refer Sections 1.3 and 6.5), a Diplomatic Note and a Request for Assistance form (Attachment 9) should be completed. Both documents are to be transmitted via email or facsimile directly to the local embassy of the member from which assistance is requested (refer Attachment 1 for contact details for assistance providers), and copied to SPREP.

FIGURE 4 – Request for Assistance



The U.S. Pacific island territories (American Samoa, Guam and Northern Marianas), when requesting assistance from the U.S., should do so in accordance with the U.S. ORCP, and not PACPLAN. Likewise, French Pacific island territories (French Polynesia, New Caledonia and Wallis and Futuna) should seek assistance in accordance with the '*Orsec maritime contingency plan*' and not PACPLAN. The U.S. and France Pacific island territories should use the PACPLAN procedures when requesting assistance from non-U.S. or French participants respectively.

Whilst requests for assistance should be made directly from the requesting country/territory to the assistance provider, a requesting country/territory may ask SPREP to facilitate the request for assistance as per Figure 4 above.

In requesting assistance, the requesting country/territory should provide as much information as possible about the nature of the spill and be as specific as possible about the type of assistance required. Determination of the most appropriate assistance package should be carried out through discussions/communications between the requesting country/territory and the assistance provider.

The onus is on the Responsible Authority in their country/territory to manage the overall spill response effort. This includes facilitating the activities of the assistance providers by ensuring customs, immigration, quarantine and logistics arrangements are in place (refer Sections 6.2 and 6.3) and providing the command and control elements of the response. If the above responsibilities cannot be met the effectiveness of external assistance will be hampered.

Five levels of assistance are available, as outlined below.

6.1.1 ASSISTANCE FROM A NEIGHBOURING SPREP ISLAND GOVERNMENTS

SPREP island governments could seek assistance from neighbouring island governments. Such requests for assistance should be made directly between the neighbouring governments, and copied to SPREP (refer Figure 4). They should be in accordance with any relevant MoU or TA between the neighbouring governments and any applicable joint response plan(s) that the neighbours may have in place (refer Section 5.14).

6.1.2 ASSISTANCE FROM SPREP

In the event of a marine spill in a SPREP island member country/territory, SPREP may be asked to provide or arrange technical advice in the following areas:

- The availability and application of spill trajectory prediction systems;
- The use of oil spill dispersants, including application of the SPREP Guidelines on the Use of Oil Spill Dispersants;
- Environmental sensitivity ratings and protection priorities;
- Oiled wildlife operations;
- Oily waste management; and
- Environmental and scientific matters relating to the spill response in general.

Such advice would generally be provided remotely by SPREP from its office in Samoa (refer Figure 4).

In addition to being able to provide technical advice in the above areas, SPREP would also be able to arrange for the provision of technical advice in other, non-environmental, areas. These include operational disciplines and assistance to countries and territories in requesting external assistance, in accordance with Sections 6.1.3 to 6.1.5 below.

6.1.3 ASSISTANCE FROM SPREP METROPOLITAN GOVERNMENTS

Should the spill be of a magnitude and/or severity that requires additional assistance, SPREP island members should seek assistance from a Metropolitan member.

Under PACPLAN each SPREP island member is allocated a SPREP Metropolitan member as a primary and secondary source of assistance (see Table 2). This table should serve only as a guide as the decision to approach any Metropolitan member, or any other potential source of assistance, will be made depending on the circumstances of each spill and a particular Metropolitan member may not be able to provide the requested assistance.

TABLE 2 – Primary and Secondary Sources of Assistance – by Participant

ASSISTANCE SOURCE	PRIMARY SOURCE OF ASSISTANCE FOR:	SECONDARY SOURCE OF ASSISTANCE FOR:
Australia	Nauru	Federated States of Micronesia
	Papua New Guinea	Fiji
	Solomon Islands	Guam
	Tuvalu	New Caledonia
	Vanuatu	Northern Mariana Islands
	Kiribati	Palau
		Tonga
France	French Polynesia	Marshall Islands
	New Caledonia	Cook Islands
	Wallis and Futuna	Niue
New Zealand		Vanuatu
	Cook Islands	American Samoa
	Fiji	Nauru
	Niue	Papua New Guinea
	Samoa	Solomon Islands
	Tokelau	Wallis and Futuna
The United States	Tonga	
	American Samoa	French Polynesia
	FSM	Kiribati
	Guam	Tokelau
	Marshall Islands	Tuvalu
	Northern Mariana Islands	Samoa
	Palau	

6.1.4 ASSISTANCE FROM THE OIL INDUSTRY

6.1.4.1 IN-COUNTRY INDUSTRY

In the first instance, SPREP island governments that desire assistance from industry providers should seek it from the industries that operate within its jurisdiction. Such requests for assistance should be made directly between the government and the industry provider, and be copied to SPREP. They should be in accordance with the relevant NATPLAN, which should outline the mechanisms for integration between in-country government and industry capabilities.

In general, the oil industry should be entirely responsible for the physical resourcing of the response to spills from its own facilities, under the command and control of the government Responsible Authority.

The industry should also provide assistance to government for the response to non-industry spills on a cost-recovery basis, with costs being recovered from the polluter.

6.1.4.2 AUSTRALIAN MARINE OIL SPILL CENTRE (AMOSC)

AMOSC is an Australian industry funded Oil Spill Response Organisation based out of Geelong in Melbourne. The centre was created in 1991 for industry responses to oil spills. AMOSC holds the largest Tier 3 stockpile of equipment in Australia and operates an industry based Core Group of around 100 prepared oil spill responders.

The role of AMOSC is to support and advise member companies on oil spill response and includes conducting oil spill response training courses in IMO levels I, II and III. AMOSC also provides support and assistance to AMSA through the Australian National Plan for oil spill response. AMOSC can provide training, advice and support to SPREP members as required and through fee-based courses either in Australia or the Pacific Islands.

AMOSC is available to all SPREP governments through the Australian Government and AMSA when assistance is required to either provide advice or respond to an oil spill. The Australian Government and AMOSC have established protocols enabling response support by AMOSC to be effected rapidly. These protocols are fundamental to supporting spill response in the Pacific Islands. In the event of a spill, this service will be fully recovered (through rental of equipment and staff time) from the responsible 'spiller'.

AMOSC is also available to all oil companies operating in the Pacific Islands through membership or callout (acknowledging the applicable fees for non members). Membership of AMOSC can be accessed through the Australian Institute of Petroleum (AIP): www.aip.com.au

The AMOSC 24 hour callout number is; (0061) 0438 379328.

The AMOSC office number is; (0061) 03 5272 1555.

6.1.4.3 OIL SPILL RESPONSE LIMITED (OSRL)

OSRL is a Tier 3 response industry-owned cooperative which exists to respond effectively to oil spills wherever in the world they may occur. OSRL membership consists of over 120 environmentally responsible corporations (oil majors, national/independent oil companies, and companies operating in the oil supply chain) whose activities count for over 60% of global oil production.

OSRL has attended over 350 spill incidents in the past 25 years and holds the experience and expertise to deliver a wide range of preparedness services from bases in the UK, Singapore and Bahrain. OSRL services include technical advisory, provision of specialist personnel, equipment hire and maintenance, and oil spill response training.

OSRL is on standby, 24 hours a day, 365 days a year, with equipment capable of deployment inland, near shore and offshore environments. Containment and recovery equipment, dispersant application systems, *in-situ* burning equipment, and shoreline clean-up materials are available to respond to oil spill situations.

6.1.4.4 ASSISTANCE FROM OTHER ENTITIES.

Pacific island countries/territories may wish to request assistance from sources which are not participants in PACPLAN such as the International Maritime Organization (IMO), United Nations Environment Programme (UNEP) and the Global Environment Facility (GEF), and international industry groups such as the International Tanker Owners Pollution Federation Ltd (ITOPF).

SPREP member governments should use normal diplomatic channels when requesting assistance from these sources. SPREP may be able to facilitate such requests, but only when efforts to secure assistance from PACPLAN participants are exhausted.

6.2 CUSTOMS, IMMIGRATION AND QUARANTINE

For the effective provision of external assistance under PACPLAN, it is vital to move equipment, materials and personnel on-site without undue delay or formality. It is essential that each government participating in PACPLAN has in place administrative arrangements to expedite customs, immigration and quarantine procedures for equipment and personnel entering or leaving its territory for the purpose of assisting it, or another government, in responding to a marine spill. The IMO is developing guidelines for international assistance, to be ready in 2013, that will be useful for inclusion in NATPLANS.

Details of such arrangements should be included in each country/territory(ies) NATPLAN and promulgated to all governments participating in PACPLAN, and to other parties which may be called upon to assist in the event of a pollution incident. Details should include the essential customs, immigration and quarantine information that is required by the appropriate national authority to facilitate special arrangements. Ideally, such arrangements should include provisions for the rapid issue or waiving of entry visas as well as the arrangements for temporary importation of spill response equipment and material, free of duty and/or import taxes.

6.3 LOGISTICS

In the event of a major spill, considerable amounts of equipment and expertise may be mobilised on an international scale to assist the country/territory(ies) requesting such assistance.

Before this is done it is critical that a full evaluation is carried out to ensure that equipment and materials that are appropriate to the particular circumstances of the spill are the ones that are mobilised, and that the necessary logistical support is available locally. Logistical support that may be needed locally includes aircraft unloading equipment, transport, cranes, vessels and oil storage facilities. In addition, the party requesting assistance should have in place:

- Pre-agreed arrangements for hire/contracting, payment, and insurance of equipment and personnel;
- A proper system to manage the health and safety of personnel sent to the affected country;
- Proper accommodation and hospitality services for personnel sent to the affected country;
- Security arrangements to safeguard equipment;
- Proper equipment maintenance and decontamination facilities and systems, so that equipment is returned ready for future use; and
- Communication facilities

Requesting parties should bear in mind that the onus is generally on the Responsible Authority in their country/territory to manage the overall spill response effort, including facilitating the activities of the assistance providers and providing the command and control elements of the response.

6.4 FINANCES

6.4.1 FUNDING OF SPILL RESPONSE – INSURERS OF VESSELS

More than 90% of the world's shipping fleet are entered in a Protection and Indemnity Club (P&I Club), which provide coverage for liability relating to loss or damage directly caused by a ship-sourced pollutant.

When a vessel is identified as responsible for a spill incident it is important to liaise immediately with the P&I Club representative who will be appointed to co-ordinate any claims. Responsible Authorities should carry out the processing of any claims to P&I Clubs in a prompt and professional manner.

The Responsible Authority and Lead Agency need to maintain detailed financial records, including all supporting information required where a claim is to be made to P&I Club insurers of vessels. P&I insurers only repay expenses that are reasonable and can be satisfactorily supported by documentation.

Under the compensation and liability conventions such as the Civil Liability Convention (CLC), and Bunkers Convention, claims for compensation for oil pollution damage may be bought against the owner of the ship that caused the damage (or their insurer). In certain circumstances for spills from oil tankers, claims may be bought against the IOPC Fund, if the ship-owners liability is exceeded or the ship-owner is uninsured and the state is a party to the CLC.

The general criteria for claims to be successful either through the P&I Clubs and IOPC Fund is as follows:

- any expense/loss needs to actually have been incurred;
- any expense must meet measures which are deemed reasonable and justifiable;
- a claimant's expense/loss or damage is admissible only if and to the extent that it can be considered to be caused by contamination;
- there needs to be a link of causation between the expense/loss or damage covered by the claim and the contamination caused by the spill;
- a claimant is entitled to compensation only if they have suffered a quantifiable economic loss; and
- a claimant needs to prove the amount of their loss or damage by producing appropriate documents or other evidence.

Justifiable expenses that are incurred as a result of activities financed through National Marine Pollution Funds (see Section 6.4.3), and activities carried out as a result of an external request for assistance (see Section 6.4.4), may be recoverable from the P&I Club. Governments can only do so if the vessel is insured and as such need to put in place requirements for vessels to have insurance.

6.4.2 FUNDING OF SPILL RESPONSE – DETENTION OF VESSELS TO SECURE COST RECOVERY

In accordance with Article 220 of UNCLOS, in some circumstances a suspected vessel can be detained in connection with a pollution incident in territorial waters. In regional countries like Australia this approach has been found to be very helpful in securing guaranteed monies for clean-up costs as well as criminal fines levied on the spiller.

When consistent with international law, the Responsible Authority can detain a suspected vessel and request a security in the form of a bank guarantee or Letter of Undertaking issued by the vessels P&I Club insurer. The level of the guarantee is an amount that in the Responsible Authority's opinion is equivalent to the amount of all penalties, other amounts of money, costs and expenses that could be payable by the master and owner of the vessel if found responsible for the pollution breach.

6.4.3 FUNDING OF SPILL RESPONSES – NATIONAL MARINE POLLUTION FUNDS (POLFUNDS)

It is recognised that many of the governments in the PACPLAN Area have inadequate resources, including financial reserves, to deal with major oil spills. From the moment a spill response commences, the ability to incur expenditure is critical, or the Responsible Authority will be unable to undertake essential operations such as the mobilisation of aircraft and vessels.

For spills from oil industry facilities, such expenditure should be covered directly by the relevant Company. For spills from non-oil industry facilities, the Responsible Authority needs to be able to incur expenditure.

To counter the problem of a lack of financial reserves and lack of delegation to incur expenditure, the Regional Model Marine Pollution Legislation promulgated by SPREP and SPC includes provision for the collection of a pollution levy from shipping calling at a Pacific port.

Under the regional model legislation, the proceeds from this levy are deposited into a trust fund (National Marine Pollution Fund or POLFUND), for use in marine spill response. A board of trustees, comprising as a minimum a representative from the government Responsible Authority, the oil industry and the shipping industry, administer the POLFUND. Any expenditure from the POLFUND requires approval from the board of trustees, with administrative arrangements that allow rapid approval in the event of a genuine pollution emergency.

The legislation also provides for a cap on the fund, which is set according to the pollution risk, and the acceptance that the POLFUND is only intended to underwrite the initial phases of a spill response. The relatively low volume of shipping in Pacific island countries/territories and the need to minimise the cost-imposition on the shipping and oil industries from the marine pollution levy, dictate that individual POLFUNDs are highly unlikely to be capable of covering the full costs of a spill response.

The above arrangements are not available if a Pacific island country/territory's marine pollution legislation does not include the marine pollution levy/POLFUND provisions promulgated by the SPREP/SPC regional model legislation. It is the responsibility of individual governments to ensure that mechanisms are in place to financially enable the initial operations needed to respond to a marine spill. The POLFUND arrangements promulgated by SPREP and SPC provide a useful model for adoption by countries/territories.

6.4.4 FUNDING EXTERNAL ASSISTANCE – COST RECOVERY AND REIMBURSEMENT

Once the POLFUND (or other financial mechanism) financially enables initial response operations, the assistance provider should provide financial underwriting of any subsequent external assistance, with full cost recovery processed once response operations are completed.

The reimbursement of costs for external assistance is dealt with in accordance with the OPRC Convention and OPRC-HNS Protocol where applicable. Under Annexes to those agreements, unless otherwise agreed, Parties bear the costs of action taken on their own initiative, and reimburse other Parties for action taken at their request.

However, the requesting country/territory may ask the assistance provider to waive reimbursement of expenses that exceed the amount recovered from the polluter. In such cases, the OPRC Convention and OPRC-HNS Protocol requires assistance providers to give due consideration to the needs of the developing countries.

The requesting country/territory and the assistance provider should co-operate in attempting full cost recovery from the polluter, under existing legal regimes where applicable (such as the 1992 Civil Liability Convention, the 1992 Fund Convention, and the Bunkers Convention).

To assist in the recovery of costs, each government shall maintain individual records of action taken and equipment and other resources used, including detailed and complete records of all costs incurred. These records can be utilised to support cost recovery, claims for compensation, and for subsequent analysis of actions taken during the pollution incident, in order to revise PACPLAN.

Justifiable external assistance costs may also be recoverable from the P&I Clubs.

6.4.3 MAINTENANCE OF PACPLAN

Whilst SPREP is responsible for maintaining PACPLAN and associated systems, additional resources will be needed available to carry out these functions.

As PACPLAN is focussed on implementing the Pollution Protocol of the Noumea Convention, member countries, through their annual voluntary contributions, contribute to the maintenance of PACPLAN. Alternatively, the maintenance of PACPLAN could also be financed through contributions from member POLFUNDs, proposed in the Regional Model Marine Pollution Prevention Legislation.

7. RESPONSE TERMINATION AND POST-SPILL ACTIVITIES

7.1 RESPONSE TERMINATION

In any marine spill response operation, a point is reached where either the objectives of the response are reached or the cost and effort involved in continuing clean-up operations exceed the environmental benefits to be gained. The Incident Commander, in consultation with advisers and the National Committee, should determine the termination point for the response. The advice from scientific/environmental experts, including any provided through external assistance, will be of paramount importance in determining when the environmental effectiveness of continued spill clean-up efforts do not justify continued expenditure.

Once a decision to terminate a spill response is made, it should be communicated to all affected/interested parties and also to SPREP.

7.2 EQUIPMENT CLEANING/RESTORATION AND RETURN

Oiled equipment should be cleaned as soon as possible after use. Cleaning should be carried out in accordance with the manufacturer's instructions and in a controlled situation where run-off can be contained without causing further pollution.

All oil collected from cleaning operations should be disposed of in accordance with the oily waste management procedures outlined in the relevant NATPLAN (refer Section 5.13).

Once cleaning is completed, all equipment that has been provided through external assistance should be inspected and checked-off, and arrangements made in consultation with the assistance provider for return or replacement of the equipment.

7.3 RESPONSE EVALUATION AND DEBRIEFING

As soon as possible after termination of clean up, a full debrief session should be held. The aim of the debrief session is not to assess the performance of individuals, but to evaluate the response and to translate any lessons learned into improvements and/or revisions to the relevant NATPLAN and PACPLAN, so as to improve the effectiveness of any future spill responses.

7.4 DAMAGE ASSESSMENT AND MONITORING

Following a marine spill it may be warranted to conduct post-spill damage assessment and monitoring activities, in order to scientifically and quantitatively assess:

- Ecological damage; and
- Impacts on commercial resources and activities such as fisheries, aquaculture and tourism.
- It can also provide a baseline against which to measure recovery from the spill.
- The information gathered can assist with:
 - Determination of compensation claims;
 - Better understanding of the effects of spills and the ability of the environment to recover from such effects;
 - Better understanding of the effects and effectiveness of the various clean-up techniques used; and
 - Identification of any necessary on-going restoration and rehabilitation for damaged environments and resources.

Post-spill damage assessment and monitoring plans should be contained in each country/territory's NATPLAN. Responsibility for such plans should rest with the government agency responsible for developing such plans.

SPREP can provide or arrange for technical advice and assistance in the area of post-spill damage assessment and monitoring, upon request.

7.5 ENVIRONMENTAL RESTORATION AND REHABILITATION

Following a spill, actions may be needed to restore and rehabilitate damaged ecosystems and resources. For example, replanting mangroves killed by a spill; rehabilitating beaches damaged by clean-up activities; or transplanting coral to a high-use tourist area impacted by a spill.

Post-spill restoration and rehabilitation plans should be contained in each country/territory's NATPLAN. Responsibility for such plans should generally rest with the government agency responsible for developing such plans.

It is important to note that insurance, for example from the P&I cover, does not normally include restoration and rehabilitation costs.

SPREP can provide or arrange for technical advice and assistance on post-spill restoration and rehabilitation, upon request.

8. PUBLIC INFORMATION

8.1 PUBLIC RELATIONS OFFICER (PRO)

After the activation of the Plan, the Responsible Authority should designate a Public Relations Officer who will be seconded to the Incident Command Centre's (ICC) Management Unit.

The PRO will be responsible for:

- a. managing public relations;
- b. maintaining contacts with the media;
- c. preparing press releases on behalf of the Incident Commander (IC); and
- d. following the information released by the media and providing any points of clarification.

8.2 PRESS RELEASES

During the entire period between the activation and the deactivation of the Plan, press releases should be prepared and distributed to the press by the PRO on the basis of confirmed information cleared by the IC. These press releases should contain information concerning:

- the pollution incident and the development of the situation;
- injuries of personnel and damage to vessels, equipment, etc.
- technical data on the source of the pollution (vessels involved, oil terminals, offshore units, etc.) type of characteristics of the pollutant, etc.
- the measures taken and planned to combat pollution;
- the progress of the response measures.

The following guidelines should be observed when preparing press releases:

- prepare titles/headlines;
- give priority to the most recent and important information;
- use simple sentences and give only one idea per sentence;
- when using estimates be clear that these are based on the best information available at the time;
- avoid giving opinions on environmental or other unquantifiable damages; and
- provide a point of contact for further information

Maps showing the area of the incident, the evolution of the spill and the sites of the response operations should accompany press releases whenever possible. Pictures, where available, can also help to convey information effectively.

All press releases should be vetted and approved by the IC before distribution to the press.

8.3 PRESS CONFERENCES

After the activation of the Plan, the Lead Authority may decide, in consultation with the IC, to organize press conferences for briefing the media as necessary.

The following persons may take part in such press conferences:

- IC
- specially designated expert members of the ICC Management Unit
- PRO
- representative(s) of the Lead Authority
- representatives of the other Parties (e.g. Liaison Officers)
- representatives of the operators of the facility at the origin of the pollution (ship and cargo owners and/or their insurers, terminal or offshore units operators)

Written information on the main facts concerning the pollution incident and the Joint Response Operations, maps and photographs may be prepared in advance by the PRO and approved by the IC for use during the press conference.

Guidelines concerning the preparation of press releases (see Section 8.2) should also be observed by participants in press conferences.

8.4 COMMUNITY VOLUNTEERS

Depending on the magnitude and nature of the oil spill, members of the public may wish to volunteer their help. While the additional manpower and skills may be beneficial, proper consideration should be given before accepting a volunteer brigade. It is the responsibility of the *Planning Section Resource Unit Coordinator* to manage and oversee all aspects of volunteer participation including recruitment, induction and deployment.

9. EQUIPMENT

9.1 NATIONAL RESOURCES

Effective marine spill response cannot be carried out unless appropriate equipment is available.

Each Pacific island country and territory should establish and maintain a national marine spill response equipment inventory capable of dealing with Tier Two spills, as defined in Section 1.3. This inventory, and procedures to access it, should be contained in each country/territory's NATPLAN.

The national equipment inventory should be a joint government/industry arrangement, with both parties contributing and having access to the equipment. In general, industry should provide the equipment necessary to respond to Tier One spills from its own facilities, and government should provide the balance of the stockpile necessary to bring the capability up to Tier Two level.

In determining equipment needs, industry and government should work closely together to ensure compatibility, and that the equipment procured is the most appropriate for the level of spill risk and local conditions.

A list of the recommended Tier 1 and Tier 2 stockpile that make up a capability listing is in Attachment 10.1.

The high capital cost and significant storage and maintenance requirements of spill response equipment mean that regionally appropriate technology and local resources should constitute as much of the equipment inventory as possible.

9.2 REGIONAL RESOURCES

There is no proposal under PACPLAN to establish a regional stockpile of equipment, as it is felt that this would simply duplicate what is already available through external assistance.

The most significant stockpiles of marine spill response equipment within the region are in:

- American Samoa (USCG and oil industry/contractor);
- Fiji (Oil Industry);
- Guam (USCG and oil industry/contractor); and
- New Caledonia (French Navy).

Access to this equipment is via the Request for Assistance procedures outlined in Section 3 and 6.

The most significant stockpiles of equipment adjacent to the PACPLAN Area of Operations are:

- Auckland (New Zealand National Plan resources);
- Brisbane, Darwin, Melbourne, Sydney and Townsville (Australian National Plan resources);
- Geelong (AMOSC);
- Hawaii (USCG);
- San Francisco (USCG Pacific Strike Team); and
- Singapore (OSRL)

Access to this equipment is via the Request for Assistance procedures outlined in Sections 3 and 6.

An equipment inventory of main items in each stockpile is in Attachment 10.2.

10. TRAINING AND EXERCISES

10.1 REGIONAL PACPOL ACTIVITIES

Marine spill response plans such as PACPLAN are only effective if relevant personnel receive adequate training and if the Plan is exercised and reviewed on a regular basis.

The primary regional training activity for PACPLAN will be PACPOL Project MI1: Exercises and Training. The MI1 workshops can be regional as well as national and are organised by SPREP. The regional exercise and training workshop is organised every 2 years and has three components:

- A four day training course in marine spill response;
- A one day desktop exercise of a regional response to a major spill under PACPLAN; and
- A half day PACPOL co-ordination meeting.

The four day training course is based on the IMO level 2 and 3 model course and is designed to target middle-management personnel from government environmental, maritime administrations and the oil industry in Pacific island countries/territories, who play key roles in the response to marine spills within their respective countries/territories.

The workshops are designed to provide an overview of all aspects of the response to marine spills, and provide the participants with the knowledge and skills necessary to develop effective marine spill response arrangements within their countries/territories.

10.2 SPECIALIST TRAINING COURSES

Although there are specialist spill training activities offered in countries adjacent to the region (Australia, NZ and U.S.A.) it is envisaged that every opportunity should be taken to provide detailed training in specialist areas (e.g. first level responder, environmental and scientific support co-ordinator etc.), in-country at the national level. This is not only cost effective in that it provides opportunities for multiple persons to be trained, as opposed to the one or two persons being sent offshore, but the training is also being provided at the environment to which the skills will be applied. The regional oil industry should continue with in-country training of its personnel at its oil terminals and depots and also continue to send personnel to training courses at industry providers (e.g. AMOSC, OSRL) as an important contribution to regional training.

This combination of a regional workshop and opportunistic attendance at specialist courses either in-country, or in countries adjacent to the region, should provide the optimum level of marine spill training for the region, within the limits of available resources.

10.3 IN-COUNTRY EXERCISES

Under each country/territory's NATPLAN, a national marine spill response exercise should be held in each country/territory on an annual basis. Such exercises should be joint government/industry activities and seek to further develop government/industry integration. Whilst responsibility for organising these in-country exercises rests with each National Committee, SPREP can provide technical advice and assistance.

PACPOL has a project that is most relevant to NATPLANS – Project MI 1: Exercises and Training. These national workshops are organised by SPREP every two years and has three components:

- A four day training course in marine spill response;
- A one day desktop exercise of a regional response to a major spill under PACPLAN; and
- A half day National Marine Pollution co-ordination meeting.

The four day training course is based on the IMO level 1, 2 or 3 model courses. It targets middle-management personnel from government environmental and maritime administrations and the Tier One facilities, who play key roles in the response to marine spills.

The workshops are designed to provide an overview of all aspects of the response to marine spills, and provide the participants with the knowledge and skills necessary to develop effective marine spill response arrangements at the national and agency levels.

10.4 REGIONAL REGISTER OF MARINE SPILL RESPONDERS

As part of its role under PACPLAN, SPREP has established a Regional Register of trained Marine Spill Responders. This database includes details of all regional government and oil industry personnel who have attended the SPREP activities, plus those who have attended specialist training courses such as those offered by AMSA, AMOSC, MNZ, OSRL, and USCG. It will allow tracking of training recipients, ensuring optimum selection of participants for future workshops and training. It will also provide a list of personnel who could assist with actual spill responses.

In order to assist SPREP with ensuring that the database is complete and up-to-date, the Responsible Authority in each country/territory, AMOSC and OSRL, should submit to SPREP annual lists of personnel who have received training other than the SPREP PACPOL activities, including the details of the training received.

11. ADOPTION, CONTROL AND REVISION OF THE PLAN

11.1 ADOPTION OF THE PLAN

[PACPLAN has been adopted by consensus at the 24th intergovernmental meeting of the Secretariat of the Pacific Regional Environment Programme (SPREP) and contracting parties to the Noumea Convention held in Apia, Samoa in September 2013.] *[brackets to be removed upon adoption]*

11.2 CONTROL OF THE PLAN

A controlled copy of the PACPLAN should be maintained on the SPREP website with the full contact details of focal points for each participant in the Plan in order to facilitate revision and updating. A list of participants in Plan focal points can be found in Attachment 1.

11.3 REVISION OF THE PLAN

The main body of PACPLAN should only be revised by an intergovernmental meeting of SPREP and contracting parties to the Noumea Convention.

Proposed revisions of PACPLAN may be submitted by any SPREP member to SPREP for circulation to other members for consideration. To be considered for adoption at an intergovernmental meeting of SPREP, any proposed revision to the plan should generally be circulated at least 90 days prior to that meeting.

Technical information contained in attachments, such as contact details, should be updated regularly by SPREP without the need for adoption by an intergovernmental meeting of SPREP. Revisions and updates will be made available on the SPREP website and circulated by SPREP to all participants of the plan.

The accuracy of technical information contained in appendices, that relate to individual participants to the Plan, is the responsibility of each participant in the Plan. All participants in the Plan should report to SPREP, any relevant changes in circumstances, including levels of risk of marine spills, capability to manage marine spills, internal administrative arrangements and contact details, that may merit revision and updating of the Plan. SPREP will be responsible for posting updates on the SPREP website and circulating such updates to all participants of the Plan.

ATTACHMENTS

ATTACHMENT 1: PACPLAN MARINE SPILL RESPONSE CONTACTS

TABLE 1 – SPREP

POLLUTION ADVISER Secretariat of the Pacific Regional Environment Programme PO Box 240, Apia, SAMOA Ph (685) 21929 Fax (685) 20231 Email sprep@sprep.org Please transmit all POLREPs to email sprep@sprep.org or fax (685) 20231 for entry into the PACREP database.	DIRECTOR Waste Management and Pollution Control Division Secretariat of the Pacific Regional Environment Programme PO Box 240, Apia, SAMOA Ph (685) 21929 Fax (685) 20231 Email wasteteam@sprep.org
---	---

TABLE 2 – Responsible Authority (Maritime Administration), Environment Administration and SPREP National Focal Point for each SPREP Member Country/Territory

(The preferred Responsible Authority for assuming command of marine spill response in each country/territory is the national maritime administration. The Responsible Authority should chair a National Marine Pollution Committee, whose membership should include, as a minimum, the national environment administration, the national fisheries/marine resources administration, the national disaster management administration, the port administration and the local oil industry. Note that for bilateral assistance, requests should follow the bilateral diplomatic request process through the locally based embassy of the metropolitan member in country.)

Country/ Territory	1. Responsible Authority (Maritime Administration)	2. SPREP Operational National Focal Point (Environment Administration)	3. SPREP Diplomatic National Focal Point
PACIFIC ISLAND COUNTRIES			
Cook Islands	Secretary Ministry of Transport PO Box 61, Rarotonga Ph (682) 28810 Fax (682) 28816	Director Environmental Services PO Box 371, Rarotonga Ph (682) 21256 Fax(682) 22256 Resources@environment.org.ck	Secretary Ministry of Foreign Affairs and Immigration PO Box 105, Rarotonga Ph (682) 29347 Fax (682) 212 47 secfa@foraffairs.gov.ck
Federated States of Micronesia	Secretary Department of Transportation, Communication and Infrastructure PO Box PS2, Palikir, Pohnpei Ph (691) 320 2865 Fax (691) 320 5853 transfm@mail.fm	Director Office of Environment and Emergency Management PO Box PS 69, Palikir, Pohnpei Ph (691) 320 8814 / 8815 Fax (691) 320 8936 andrewy@mail.fm	Secretary Department of Foreign Affairs PO Box PS 123, Palikir, Pohnpei Ph (691) 320 2613 Fax (691) 320 2933

Fiji	CEO Maritime Safety Authority of Fiji 4th Floor Kadavu House PO Box 326, Suva Ph (679) 315 266 Fax (679) 303251 Att: Phil Hill – Manager Pollution Response Services	Director Department of Environment. Ministry of Urban Development, Housing and Environment. PO Box 2109, Govt. Bldgs., Suva Ph (679) 3311 699 Fax (679) 3312 879 Jdavetanivalu@environment.gov.fj	Permanent Secretary Ministry of Urban Development, Housing and Environment. PO Box 2131, Govt. Bldgs., Suva Ph (679) 211 416 Fax (679) 303 515
Kiribati	Director of Marine Ministry of Communication, Transport and Tourism Dev. PO Box 487 Beitio, Tarawa Ph (686) 26003 Fax (686) 26572	Secretary Ministry of Environment, Lands and Agricultural Development PO Box 234, Bikenibeu, Tarawa Ph (686) 28211 Fax (686) 28234 Att: Mrs. Nenenteiti Teariki, OIC ECD. nenenteitir@environment.gov.ki	Secretary Ministry of Foreign Affairs and Immigration PO Box 68, Bairiki, Tarawa Ph (686) 21342 Fax (686) 21466 secretary@mfa.gov.ki
Marshall Islands	Secretary Mr. Phil Philippo Ministry of Transport and Communications POBox 1079 Majuro 96960	Mr. Lowell Alik General Manager Environmental Protection Agency PO Box 1322, Majuro Ph (692) 625 3035 Fax (692) 625 5202 E: lowellalik@gmail.com	Ms. Kino S. Kabua Secretary Ministry of Foreign Affairs PO Box 1349, Majuro, RMI 96960 Tel: (692) 625 3181 / 3012 Fax (692) 625 4979 Att: Mr. Warwick Harris, Act Director OEPPC Tel: (692) 625 7944 / 7945 Fax (692) 625 7918 E: warwick47@gmail.com
Nauru	Mr. Kemp Detenamo Director Ministry of Transport AIWO District, Republic of Nauru Ph (674) 557 3122/3089 Fax (674) 557 3117/3188 E: kemp.detenamo@naurugov.nr Mr. Lesi Olsson (Secretary of Transport) Ph: (674) 557 3122 / 3571 Email: lesi.olsson@naurugov.nr	Contact via 3.	Mr. Russ Kun Secretary Department of External Affairs Republic of Nauru Ph (674) 557 3042 E: russ.kun@naurugov.nr Mr. Tanko Star Director Department of CIE Republic of Nauru Ph: (674) 557 3117 E: tanko.star@naurugov.nr
Niue	Mr David Talagi Director Public Works Department Alofi Ph (683) 4297/4194 Fax (683) 4151 Email pwd.director@mail.gov.nu	Mr. Sauni Tongatule Director for Environment Department of Environment PO Box 80, Alofi, Niue Ph (683) 4021 Fax (683) 4391 Sauni.tongatule@mail.gov.nu	Secretary to Government Premier's Department PO Box 40, Alofi Ph (683) 4200 Fax (683) 4232 external@mail.gov.nu
Palau	Mr. William Hayes Moses Director Bureau of Commercial Department PO Box 1471, Koror Ph (680) 767 4343/4224 Fax (680) 767 3207/5100 E: dot@palaunet.com Wm.moses@palaunet.com	Executive Officer Environmental Quality Protection Board PO Box 8086, Koror Ph (680) 488 1630 Fax (680) 488 2963 eqpb@palaunet.com	Minister of State Office of the Minister PO Box 100, Koror Ph (680) 767 2490 Fax (680) 767 2963

Papua New Guinea	CEO/General Manager National Maritime Safety Authority PO Box 668, Port Moresby Ph (675) 321 1244 Fax (675) 321 0873	Secretary Department of Environment and Conservation PO Box 6601, Boroko Ph (675) 325 0180 Fax (675) 325 0182	As per 2.
Samoa	Mr. Vaaelua Nofo Va'aelua CEO Ministry of Works, Transport and Infrastructure Private mail bag, Apia Ph (685) 21611 Fax (685) 28688	Mr. Taulealeausumai Laavasa Malua CEO Ministry of Environment and Natural Resources Private Mail Bag, Apia Ph (685) 25019 Fax (685) 23176	Mr. Mose Aiono CEO Ministry of Foreign Affairs PO Box L1859, Apia Ph (685) 63333 Fax (685) 21504
Solomon Islands	Mr. Edward Tokuru Director Solomon Islands Maritime Safety Administration Ministry of Infrastructure and Development PO Box G32, Honiara Ph (677) 21535 Fax (677) 23798	Chief Environment and Conservation Officer Environment and Conservation Division Ministry of Forests, Environment and Conservation PO Box G24, Honiara Ph (677) 21521 Fax (677) 21245	As per 2.
Tonga	CEO for Infrastructure Ministry of Infrastructure PO Box 845, Nukualofa Ph (676) 22 555 / 26 322 Fax (676) 28032 Email: rfaoliu@gmail.com marine@transport.gov.to	Secretary Ministry of Lands, Survey, Environment, Climate Change and Natural Resources PO Box 5, Nukualofa Ph (676) 23210 / 25050 Fax (676) 23216	As per 2.
Tuvalu	Secretary Ministry of Communications, Transport and Tourism Vaiaku, Funafuti Ph (688) 20052 Fax (688) 20722	Director Department of Environment Private Mail Bag, Vaiaku, Funafuti, Tuvalu Ph (688) 20179 Fax (688) 20843	Secretary to Government Office of the Prime Minister Private Mail Bag, Funafuti Ph (688) 20801 Fax (688) 20819
Vanuatu	Mr. Morris Kaloran Director General Ministry of Infrastructure and Public Utilities. Port Vila Ph (678) 22790 Fax (678) 27714 Email: mkaloran@vanuatu.gov.vu Att: Markmon J Batie, Manager Maritime Affairs E: mjabatie@vanuatu.gov.vu	Mr. Albert Williams Director of Environment Department, PMB 9063 Port Vila Ph (678) 25302 Fax (678) 23565 Email awilliams@vanuatu.gov.vu	Director-General Ministry of Lands and Natural Resources Private Mail Bag 9007, Port Vila Ph (678) 23105 Fax (678) 25165

PACIFIC ISLAND TERRITORIES

American Samoa	Supervisor U.S. Coast Guard Marine Safety Detachment P.O. Box 249, Pago Pago, 96799 Ph (684) 633-2299 Fax (684) 633-1933	Director American Samoa Environmental Protection Agency Office of the Governor Pago Pago Ph (684) 633 2304 Fax (684) 633 5801	As per 2.
French Polynesia	Commandant de la zone maritime Polynesie francaise SP 91325 00204 Armées – Polynesie francaise Ph (689) 46 50 00 Fax (689) 46 50 56 24 hour contact ph (689) 46 24 32 Fax (689) 42 39 15	Charge Delegation a l'Environnement BP 4562, Papaeete, Tahiti, Polynesie Francaise Ph (689) 43 24 09 Fax (689) 41 92 52 delenv@mail.pf	Special Adviser for Foreign Affairs Department of External Relations BP 2551 Papaeete, Tahiti, Polynesie Francaise Ph (689) 5347 28 Fax (689) 432011
Guam	Commander U.S. Coast Guard Sector Guam Marine Safety Office Guam PSC 455, Box 176 FPO, AP 96540-1056 Ph (671) 355-4826 Fax (671) 355-4803	National SPREP Representative Guam Environmental Protection Agency 15-6101 Mariner Ave, Tiyan, Barrigada Ph (671) 472 8863 Fax (671) 477 9402	As per 2.
New Caledonia	Commandant de la zone maritime Nouvelle-Caledonoie BP 38 98843 Noumea cedex Nouvelle-Caledonie Ph (687) 29 30 73 / 74 24 hour contact Ph (687) 29 23 32 Fax (678) 29 23 03	Contact via 3.	SPREP Correspondent Government Delegate for New Caledonia and Wallis/Futuna French High Commission BP M2 Noumea Ph (687) 272822 Fax (687) 27 2828
Northern Marianas	Supervisor U.S. Coast Guard Marine Safety Detachment 1 Kopa Di Oru, Suite SA Saipan MP 96950 Ph (670) 236-2969 Fax (670) 236-2968	Director Division of Environmental Quality P O Box 13.4 Saipan MP 96950 Ph (670) 664 8500 Fax (670) 664 8540 deq.director@saipan.com	SPREP Contact Caller Box 1007 Saipan MP 96950 Ph (670) 664 2200 Fax (670) 664 2211 British High Commission PO Box 1812, Wellington New Zealand Ph (64) 4 4726 049 Fax (64) 4 711 974
Tokelau	Mr. Asofa Fereti, Director Transport, Maritime and Supplies Office of the Council for the Ongoing Government of Tokelau PO Box 3298, Apia, Samoa Ph: (685) 20822 / 20823: Fax: (685) 21761 E: director_tss@lesamoa.net	Mr. Mike Perez – Director Environment, Economic Development and Natural Resources Office of the Council for the Ongoing Government of Tokelau PO Box 3298, Apia, Samoa Ph: (685) 20822 / 20823: Fax: (685) 21761	Mr. Jovilisi Suveinakama, General Manager Apia/National Office of the Council for the Ongoing Government of Tokelau PO Box 3298, Apia, Samoa Ph: (685) 20822 / 20823: Fax: (685) 21761 E: jovilisi@lesamoa.net

Wallis and Futuna	Monsieur Viane Hoatau Chef du Service des Affaires Maritimes Des Ports, Phares et Balises Wallis and Futuna Mata-Utu, BP 569 Ile, Wallis 98 600 Pacifique Sud Tel: 681 72 26 52 Fax: 681 72 26 41 Chef.sammpp@mail.wf http://www.wallis-et-futuna.pref.gouv.fr/	Contact via 3.	M. Setefano Tafono Charge de mission aupres du President de L'Assemblee Territoriale Programmation 10FED / Cooperation regionale Dossiers economiques et financiers Tel: (681) 722350 Fax: (681) 722 054 Tafono@adsupwf.org
--------------------------	---	----------------	---

METROPOLITAN MEMBERS

Australia	General Manager – Marine Environment Division Australian Maritime Safety Authority GPO Box 2181 Canberra City ACT 2601 Ph (61) 2 6279 5073 Fax (61) 2 6279 5076 gmmed@amsa.gov.au 24 hr Ph: 61 2 6230 6811	Assistant Director International Cetacean Policy Section Department of Sustainability, Environment, Water, Population and Communities. Pacific Islands Branch GPO Box 787 CANBERRA ACT 2601, Australia	High Commissioner Australian High Commission Apia, Samoa Ph (685) 23411 Fax (685) 23159
France	Contact via 3.	Contact via 3.	Deputy Permanent Representative French Delegation to the Pacific Community BP 8043, Noumea, New Caledonia Ph (687) 261 603 Fax (687) 261 266 jpgaltier@spc.org.nc
New Zealand	Manager Marine Security and Incident Response Maritime New Zealand PO Box 27006, Wellington Ph (64) 4 473 0111 Fax (64) 4 473 1245 Renny.VanderVelde@maritimenz.gov.nz	Secretary Ministry for Environment PO Box 10362, Wellington Ph (64) 4 473 4990 Fax (64) 4 471 0195 rmo@mfe.govt.nz	High Commissioner New Zealand High Commission Beach Road, Apia, Samoa. Ph (685) 21711 Fax (685) 20086

United States	<p>Chief Response Division U.S. Coast Guard District 14 300 Ala Moana Blvd Honolulu HI 96850 Ph (1) 808 535 3333 JRCCHonolulu@uscg.mil</p>	<p>Manager Pacific Insular Area Programs United States Environmental Protection Agency 75 Hawthorne Street (CMD-5) San Francisco CA 94105 Ph (1) 415 744 1559 Fax (1) 415 744 1604</p>	<p>International Relations Officer Office of Oceans and Polar Affairs Bureau of Oceans and International Environmental and Scientific Affairs U.S. Department of State 2201 C Street NW, Room 2758 Washington DC 20520 United States of America</p>
----------------------	---	--	---

TABLE 3 – Oil Industry**AUSTRALIAN MARINE OIL SPILL CENTRE (AMOSC)**

General Manager
Australian Marine Oil Spill Centre
PO Box 1497
Geelong, Victoria 3220
Australia
Ph (61) 3 5272 1555
Fax (61) 3 5272 1839
24 hour emergency cellphone; 0061 (0) 438379328
amosc@amosc.com.au
www.amosc.com.au

OIL SPILL RESPONSE LIMITED

Chief Executive Officer
Oil Spill Response Limited
Regional Centre
2 Jalan Samulun
Singapore 2262
Ph (65) 266 1566
Fax (65) 266 2312
admin@osr.com.sg

ATTACHMENT 2: STANDARD POLLUTION REPORT (POLREP) FORM

(This standard form is available in electronic format from SPREP if required)

PACPLAN PACIFIC ISLANDS REGIONAL MARINE SPILL CONTINGENCY PLAN POLLUTION REPORT (POLREP)

Should you observe or receive a report of a marine pollution incident, please:

1. Complete this POLREP in as much detail as possible,
2. Fax it immediately to the Responsible Authority for marine pollution where the incident has occurred.
(See PACPLAN for contact details of national Responsible Authorities)
3. Please also email sprep@sprep.org or fax to + (685) 20231.

Name/contacts of person completing this report:

Date/time of report:

Date/time of incident:

Location of incident: Latitude:

Longitude:

Description of location (e.g. name, distance and bearing to nearest landmark):

Nature and source of incident (indicate which of the following, identify vessels/specific source where possible):

- Vessel aground/collision and leaking oil:
- Vessel underway and discharging/leaking oil:
- Vessel at anchor/moored/berthed and discharging/leaking oil:
- Land-based source:
- Oil slick with no definite source:
- Other (please describe):

Visual appearance and extent of pollution (estimate area and quantity if possible):

Direction and rate of drift of pollution:

Wind speed and direction:

Sea state:

Tide:

Identity and position of vessels in the vicinity:

Photographs taken?:

Samples taken?:

Other action taken?:

Please submit this POLREP immediately!
(Attach additional information if required)

ATTACHMENT 3: STANDARD SITUATION REPORT (SITREP) FORM

(This standard form is available in electronic format from SPREP if required)

PACPLAN PACIFIC ISLANDS REGIONAL MARINE SPILL CONTINGENCY PLAN SITUATION REPORT (SITREP)

As the response to a marine pollution incident progresses, please:

1. Complete these SITREPs on a regular basis,
2. Fax them to affected/involved/interested parties
3. Please also email to SPREP at sprep@sprep.org or fax them to + (685) 20231.

SITREP No.

Name/contacts of person completing this report:

Date/time of SITREP:

Date/time of incident:

Location of incident: Latitude:

Longitude:

Description of location (e.g. name, distance and bearing to nearest landmark):

Nature and source of incident (indicate which of the following, identify vessels/specific source where possible):

- Vessel aground/collision and leaking oil:
- Vessel underway and discharging/leaking oil:
- Vessel at anchor/moored/berthed and discharging/leaking oil:
- Land-based source:
- Oil slick with no definite source:
- Other (please describe):

Visual appearance and extent of pollution (estimate area and quantity if possible):

Direction and rate of drift of pollution:

Wind speed and direction:

Sea state:

Tide:

Events since POLREP/last SITREP:

(Attach additional information if required)

ATTACHMENT 4: STATUS OF THE NOUMEA CONVENTION AND ASSOCIATED PROTOCOL PARTIES AS AT JULY 2012

Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, 1986 (and related Protocols)

Depositary: Secretary General, Pacific Islands Forum Secretariat. Done at Noumea, 24 November 1986. Entered into force: 22 August 1990

Participant	Noumea Convention Parties (12)		Dumping Protocol Done at Noumea 25.11.86 In force: 22 Aug 1990 Parties (11)		Pollution Emergencies Protocol Done at Noumea 25.11.86 In force: 22 Aug 1990 Parties (12)		Amended Dumping Protocol Done at Noumea 10.09.06 Not yet in force Parties (0)		Oil Pollution Protocol Done at Noumea 10.09.06 Not yet in force Parties (0)		HNS Protocol Done at Noumea 10.09.06 Not yet in force Parties (0)	
	signed	ratified/ acceded	signed	ratified/ acceded	signed	ratified/ acceded	signed	accepted	signed	ratified/ acceded	signed	ratified/ acceded
Australia	24 Nov 1987	19 July 1989	24 Nov 1987	-	24 Nov 1987	19 July 1989	-	-	-	-	-	-
Cook Islands	25 Nov 1986	9 Sept 1987	25 Nov 1986	9 Sept 1987	25 Nov 1986	9 Sept 1987	10 Sept 2006	-	-	-	-	-
FSM	9 Apr 1987	29 Nov 1988	9 Apr 1987	29 Nov 1988	9 Apr 1987	29 Nov 1988	10 Sept 2006	-	10 Sept 2006	-	10 Sept 2006	-
Fiji	-	18 Sept 1989	-	18 Sept 1989	-	18 Sept 1989	10 Sept 2006	-	-	-	-	-
France	25 Nov 1986	17 July 1990	25 Nov 1986	17 July 1990	25 Nov 1986	17 July 1990	10 Sept 2006	-	10 Sept 2006	-	10 Sept 2006	-
Kiribati	-	-	-	-	-	-	-	-	-	-	-	-
Marshall Islands	25 Nov 1986	4 May 1987	25 Nov 1986	4 May 1987	25 Nov 1986	4 May 1987	10 Sept 2006	-	-	-	-	-
Nauru	15 Apr 1987	28 Aug 1995	15 Apr 1987	28 Aug 1995	15 Apr 1987	28 Aug 1995	-	-	-	-	-	-
New Zealand	25 Nov 1986	3 May 1990	25 Nov 1986	3 May 1990	25 Nov 1986	3 May 1990	10 Sept 2006	-	-	-	-	-
Niue	-	-	-	-	-	-	-	-	-	-	-	-
Palau	25 Nov 1986	-	25 Nov 1986	-	25 Nov 1986	-	-	-	-	-	-	-
PNG	3 Nov 1987	15 Sept 1989	3 Nov 1987	15 Sept 1989	3 Nov 1987	15 Sept 1989	-	-	-	-	-	-
Samoa	25 Nov 1986	23 July 1990	25 Nov 1986	23 July 1990	25 Nov 1986	23 July 1990	-	-	-	-	-	-
Solomon Islands	-	10 Aug 1989	-	10 Aug 1989	-	10 Aug 1989	-	-	-	-	-	-
Tonga	-	-	-	-	-	-	-	-	-	-	-	-
Tuvalu	14 Aug 1987	-	14 Aug 1987	-	14 Aug 1987	-	-	-	-	-	-	-
UK (for Pitcairn Is.)	16 July 1987	-	16 July 1987	-	16 July 1987	-	-	-	-	-	-	-
United States	25 Nov 1986	10 June 1991	25 Nov 1986	10 June 1991	25 Nov 1986	10 June 1991	10 Sept 2006	-	10 Sept 2006	-	-	-
Vanuatu	-	-	-	-	-	-	-	-	-	-	-	-

**ATTACHMENT 5: STATUS OF IMO CONVENTION PARTIES
AS AT 2 JANUARY 2013**

X = accession, ratification, etc. d = denunciation

[illegible]

ATTACHMENT 6: RISK ASSESSMENT IN THE PACIFIC REGION

1. INTRODUCTION

Worldwide, there is a consistent and disturbing pattern of maritime casualties. About 0.2 to 0.3% of registered vessels become total losses each year, and nearly 1% are involved in serious incidents. Human error is the proximal cause for most of these casualties, but the sequence of events that set up an incident may stretch far away, perhaps to some combination of vessel construction, maintenance, management decision and government policy. It is not uncommon for vessels to simply break up at sea in heavy weather. Every serious maritime incident has the potential to cause marine pollution. The record of casualties and consequent pollution has improved in recent decades. Part of this improvement is attributable to requirements under the IMO conventions SOLAS and MARPOL.

2. REGIONAL RISK ASSESSMENT STUDY

As PACPLAN is designed to address Tier Three spills e.g. Spills that are beyond the response capability and resources of the individual SPREP island member where the spill occurs, SPREP carried out a risk assessment in 2003 '*Marine Pollution Risk Assessment for the Pacific Islands Region*'. This assessed the potential pollution risk at two levels: 1) overall regional level to individual country EEZ scale, and 2) at 31 major ports. Ship grounding was found to be the most common casualty type with significant pollution consequences of concern to PACPLAN in the region. Because most vessels use heavy fuel oil, the loss of heavy fuel oil during a grounding incident is considered the greatest oil spill risk to the region. The text in this attachment is an updated summary of that study and outlines the potential for groundings and collisions at the regional to country EEZ and port scales for the Pacific islands region. The results clearly show the classification of ocean areas and ports into locations of high, medium and low potential for marine casualties that have significant potential to cause marine pollution.

3. SENSITIVE AREAS

The region has identified over 590 Marine Protected Areas (MPA). The Phoenix Island Protected Area (PIPA) in Kiribati is the largest MPA in the Pacific Ocean and includes eight atolls and low reef islands. PIPA was declared a World Heritage Site in 2010. The area is rich in diversity with 800 specific coral species, 500 fish species, cetaceans and turtles. The Southern Cook Islands area is also an MPA and includes nine main islands and atolls, a bird sanctuary and a whale sanctuary.

Apart from the Great Barrier Reef and Torres Strait, the Pacific region does not have any designated Particularly Sensitive Sea Areas (PSSAs) or Special Area, however there are 28 sites identified as Ecological and/or Biological Significant Areas (EBSAs). Some of these EBSAs have been identified as potential PSSA or Special Areas

It is clear, however, that the entire region is one of special environmental concern because coral reefs are among the most sensitive of marine ecosystem types to oil and other forms of pollution. Thorhaug (1992) gives the order of sensitivity to marine pollution as: corals > fish > seagrasses > mangrove forests. Unfortunately, coral reefs form not only the most sensitive ecotype, but also the most dangerous navigational hazards in the region. Coral surrounds almost every island, and off-lying coral reefs can be difficult to see directly, on radar, or on echo sounders. If a vessel grounds, it is almost certain to ground on coral.

4. COMMERCE AND SHIPPING IN THE PACIFIC ISLANDS REGION

4.1 GENERAL

The PACPLAN Area is host to several categories of seagoing traffic, which can be grouped as follows:

- Transit shipping: Ships that pass through the region without stopping en-route to other destinations;
- International shipping (as distinct from transit shipping): Ships calling at the major ports of the region from outside the region, either with incoming cargo or tourists (cruise ships) or to load exports;
- Regional shipping: Ships trading (both cargo and passengers) between the countries and territories within the region;
- Domestic shipping: Ships trading (both cargo and passengers) within each country and territory in the region;
- Foreign fishing fleet: Fishing vessels from distant water fishing nations operating within the region;
- Domestic fishing fleet: Fishing vessels from the Pacific Islands themselves; and
- Miscellaneous: Private vessels, yachts and special purpose vessels such as warships and research ships.

The major commercial influences in the Pacific islands are Australia and New Zealand. Shipping services to/from these countries are often integrated with east-west long distance routes to North America, Europe and South Asia. Trade linkages to the United States are strongest in the North Pacific (CNMI, FSM, Guam, Marshall Islands, Palau) and in American Samoa. French influence is strong in the Overseas Territories of French Polynesia, New Caledonia and Wallis and Futuna.

The second major axis of maritime trade is north/south, with connections northward to Hong Kong, Taiwan, Korea and southward through the Pacific Islands Region to New Zealand. Figure 1, 2 and 3 depict the overall shipping traffic in the region.

4.2 OIL

Crude oil is produced at only one field in the Pacific islands region: Kutubu, in Papua New Guinea. The Kutubu and associated fields opened in 1991, reached peak production of about 46 X 10⁶ bbl/yr in 1992, and are now entering the depletion phase at about 25 x 10⁶ bbl/yr. Crude oil from Kutubu is loaded onto tankers at the Kumul marine terminal, 40 km off the southern coast of Papua New Guinea. It is transported in Medium Ranged (MR) tankers westward through Torres Strait to Singapore. Other crude oil transits Torres Strait eastward, from western Australia via the Great Barrier Reef Inside Route to Australia's East Coast refineries. This route is outside our study area.

There is only one oil refinery in the Pacific islands region – the Napa Napa refinery situated on the western side of the Port Moresby harbour which has been in operation since 2004. The Napa Napa refinery receives crude from a sole supplier agent, BP Singapore. The refinery is also configured to process Kutuba crude and has the capacity to produce 32,000 barrels per day at full capacity supplying the domestic market, and with 35% of its output for foreign export. The refinery loading jetty can accommodate up to 110,000 dwt vessels.

Refined petroleum products in the region are loaded mainly in Singapore for the southern and most of the northern parts of the region. There are some spot purchases from Korea for some of the northern island nations.

Medium Range tankers of about 25000 to 60000 dwt transport from the refineries to regional centers. Local Coastal Tankers (LCT) of about 1500 to 5000 dwt perform secondary distribution to one or more bulk plants in each island country, where products are further subdivided for local delivery by road tankers or in drums (refer Figure 6).

The major products carried are mid range fuel oils (diesel, jet fuel, kerosene) and light fuels (petrol, avgas). Heavy fuel oils are used to bunker a few ships and fishing vessels, and in some industrial furnaces, for example at the sugar mills, a cement kiln in Suva and power generators for the Fiji Electricity Authority. The largest importer of petroleum products to Fiji reported that the typical mix is about:

- Diesel 45%
- Aircraft jet fuel 30%
- Unleaded petrol 20%
- Industrial furnace oil (IFO) 5%

Other importers have a similar mix. The cargoes in secondary distribution by Local Coastal Tankers would have a higher proportion of petrol. Because crude oils are minor components of traffic, oil spills in the Pacific Islands region are likely to have higher acute toxicity, but lower long-term effect, than the most notorious incidents, which are mostly crude oil spills.

4.3 LIQUEFIED PETROLEUM GAS

The PNG LNG Project is a 6.6 million tonne per annum (MTPA) integrated LNG project operated by Esso Highlands Limited, a subsidiary of Exxon Mobil Corporation. The gas will be sourced from the Hides, Angore and Juha gas fields and from associated gas in the Kutubu, Agogo, Moran and Gobe Main oil fields.

All of the contributing fields are located in the Southern Highlands and Western provinces of PNG. Over 9 trillion cubic feet (tcf) of gas and 200 million barrels of associated liquids are expected to be produced over the project life. The gas will be conditioned in the PNG Highlands and then transported by gas pipeline to an LNG plant located approximately 20 kilometres northwest of Port Moresby.

The gas will then be liquefied at the LNG plant prior to loading onto ocean going tankers to be shipped to international gas markets.

Origin Energy supplies Liquefied Petroleum Gas (LPG) with a fleet of two LPG tankers from New Zealand to the South Pacific Islands. The specific products carried are propane/butane mix to Papua New Guinea and the Solomon Islands, and butane to the remainder of the South Pacific. LPG reaches the North Pacific islands by a separate distribution system, by LPG tanker from Singapore or the Philippines to a bulk terminal in Guam.

4.4 NUCLEAR FUELS AND WASTES

Issues involving radioactive materials are particularly sensitive in the Pacific Islands region. The terrible history of open-air nuclear weapons testing in the Marshall Islands at Bikini and Enewetok, and underground testing in French Polynesia at Moruroa and Fangataufa, are still raising awareness of the dangers of radioactive materials.

The last series of nuclear weapons tests concluded at Moruroa in 1996, but radioactive wastes and nuclear fuels are routinely shipped through the region. No radioactive materials are produced or used in large quantities within any of the Pacific Island Countries and Territories. Australia, however, is a major producer of raw uranium, which is shipped as uranium hexafluoride concentrate to Japan on routes that must transect the region (UIC, 2001). Military vessels that travel through the region are another source of radioactive materials risk.

The major emerging concern regarding radioactive wastes centers on plutonium. Plutonium does not occur in nature. It is produced as a by-product in nuclear power reactors by neutron bombardment of Uranium-238, the non-chain-reacting isotope in uranium fuels. Plutonium is probably the most toxic chemical element; it is highly radioactive; and it is a preferred material for making atomic weapons. There are only two large-scale reprocessing plants in operation in the world: one in Britain, and one in France. The principal clients are French, British, German and Japanese electric power companies. Shipments of Japanese spent fuels to Europe, and return of plutonium and HLW to Japan, may traverse the Pacific Islands region. (Japan has one small reprocessing plant at Tokai, and another under construction at Rokkasho.) Refer to Figure 7.

4.5 OTHER HAZARDOUS MATERIALS

Virtually all small-volume solid cargo enters the region in containers. As the island economies develop, increasing quantities of hazardous materials such as pesticides, explosives, radioactive materials, medical supplies, and industrial chemicals are imported. Any container may contain a hazardous substance.

5.0 POLLUTION FROM SHIPPING

Although tankers loaded with refined petroleum products traverse all parts of the region regularly, the greatest risk of oil spills are from heavy bunker fuel. Every ship carries fuel for its own use commonly known as 'bunkers'. Larger vessels may contain 5000 or more tonnes of bunkers. That is more than the cargo of a typical local coastal tanker. Although some ships burn diesel, most vessels use heavy oil like IFO180 or 360. The loss of heavy bunkers fuel is considered the greatest oil spill risk to the region. Recent incidents such as the M/V Forum Samoa II which grounded at the Apia Samoa harbour entrance in 2009, the M/V Rena which grounded on Astrolabe Reef in New Zealand in 2011, and the M/V Pacific Adventurer incident in Queensland Australia in 2009, prove that these incidents do and can happen in the region.

Although petroleum products are not extremely toxic substances, concern arises from the large volume shipped. This creates the potential for catastrophic spills from ships and shore facilities, as well as chronic pollution from marine and industrial operations. In general, the lighter (lower boiling point) petroleum products, especially in the diesel range, are most toxic, but they evaporate quickly. Crude oil and heavy residual oils are persistent, difficult to disperse or remove, and contain polycyclic aromatic hydrocarbons (PAH), some of which are carcinogens.

Because of the general lack of heavy industry in the region, there are few other cargoes with potential to cause major pollution incidents. The main industry for which toxic materials are shipped in large quantities is mining. This activity is concentrated in Papua New Guinea, New Caledonia and Fiji. Sodium cyanide (NaCN) and dynamite are two of the dangerous cargoes associated with mining. Caustic soda (NaOH) is also transported in bulk to Fiji for use in cleaning sugar mill equipment.

At the lowest end of incident probability, but the highest end of potential harm, nuclear fuels, radioactive wastes, nuclear weapons and decommissioned chemical weapons occasionally transit the region.

Risk of oil pollution from WWII Wrecks is also of major concern to many Pacific island nations with over 800 WWII Wrecks in PICTs EEZ. The largest number of WWII Wrecks can be found in PNG, Solomon Islands, FSM and Palau. Because of the additional risk of unexploded ordinances, sensitivity that most of the vessels are war graves, and the ownership of WWII wrecks lies with the flag state, response to pollution incident from a WWII wreck requires bilateral negotiation between the flag state and the coastal state. SPREP can provide technical assistance upon request in the event of an incident of this nature. The response to the USS Mississinewa at Ulithi Atoll in 2002 is a case study of the type of response required in these circumstances.

6. AREAS OF HIGH CASUALTY POTENTIAL IN THE REGION

The 2003 regional study was conducted at two levels (i) regional level to EEZ and (ii) port scale. The regional level to EEZ study was based on an analysis of casualty potential, or the fact that a grounding or collision occurs when a ship attempts to occupy a space that already contains an obstruction or another vessel. The probability of such an event at each place in the area of interest is given by the product of two factors: the probability of a vessel at that place, and the presence of an obstruction or another vessel at the same place. In order to estimate the relative magnitude of this function a grid size at 1° (one degree) of latitude and longitude was set. A finer grid size, on the scale of navigational accuracy and vessel straying, would produce a better map of risk, justified if equally accurate information on vessel courses were available.

At the regional level there are large clusters of high risk for grounding potential which are mainly concentrated in the following areas; (Figure 8).

- 1) French Polynesia,
- 2) Fiji,
- 3) Around the Solomon Sea coasts of Papua New Guinea and
- 4) Solomon Islands.

The north/south passages east of Papua New Guinea (Jomard Entrance, Pioneer Channel) also form a high risk corridor mainly due to the direct bulk traffic from Australia to Japan along this corridor.

There are smaller clusters of high risk in Tonga, the two Samoa's, and Vanuatu, on the north/south corridor past Chuuk, Guam and the Northern Mariana Islands, and isolated patches of moderate grounding potential elsewhere, for example, at Majuro and Tarawa. This is confirmed with historical record of actual casualties as can be seen in Figure 9 map showing similar patterns.

At the ports level, a different measure of the potential for casualties was used, one derived from a standard practice applied in Europe and North America. In this method, a calculation of the ratio of available channel width in the most difficult part of the port entrance (CW), to minimum safe distance required for a given vessel type (MSD) was used. This gives CW/MSD, a measure of the security of the passage. Of 29 ports assessed, the nine ports with **least secure passages** are outlined below:

- 1) Port Vila;
- 2) Avatiu;
- 3) Malakal (Koror);
- 4) Papeete;
- 5) Saipan;
- 6) Betio;
- 7) Pohnpei;
- 8) Madang;
- 9) and, Honiara.

The Port of Moresby with the Napa Napa refinery is also high risk. Although Noumea, Suva and Vuda/Lautoka have a high tanker volume, they have a moderate oil pollution risk.

When looking at the risk of grounding and least secure ports, the following three ports have the greatest risk from maritime incidents as depicted in Figure 10:

- 1) Papeete;
- 2) Madang;
- 3) Honiara;
- 4) and, Apia.

Noumea, Suva and Vuda Point/Lautoka have high tanker volumes, as well as a moderate to high security measure. The security measure is improved at these ports by the presence of good aids to navigation and compulsory pilotage.

FIGURE 1: Total shipping including transit shipping in the PACPLAN Area

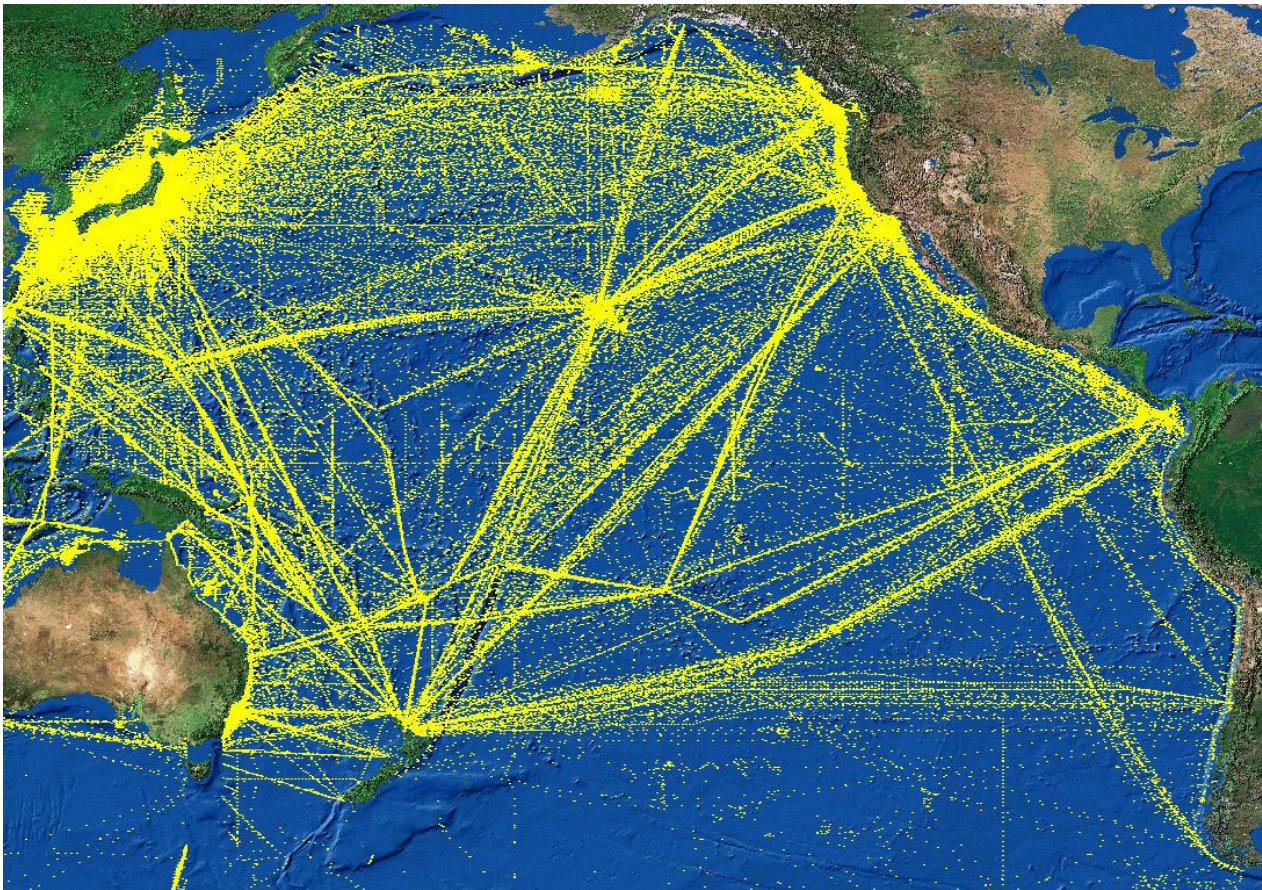


FIGURE 2: Total Traffic in the PACPLAN Area

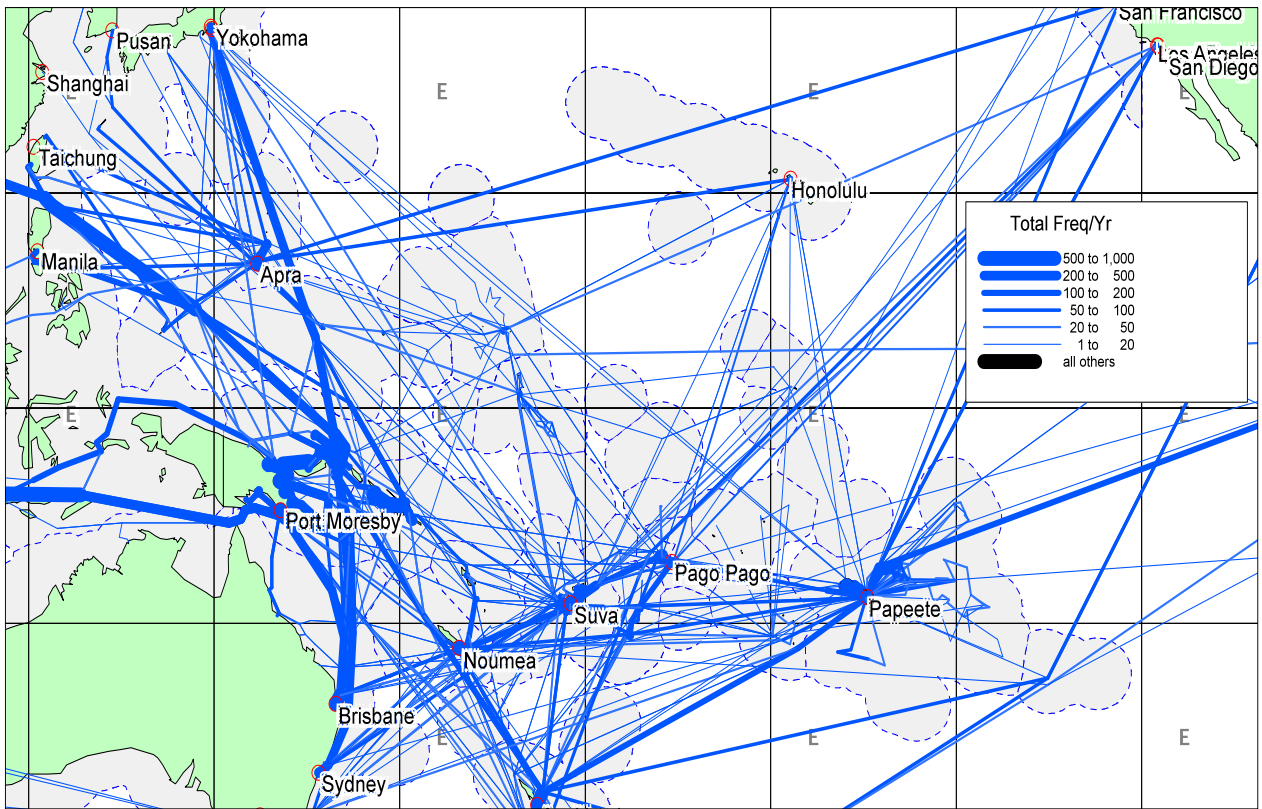


FIGURE 3: Container Vessels Traffic

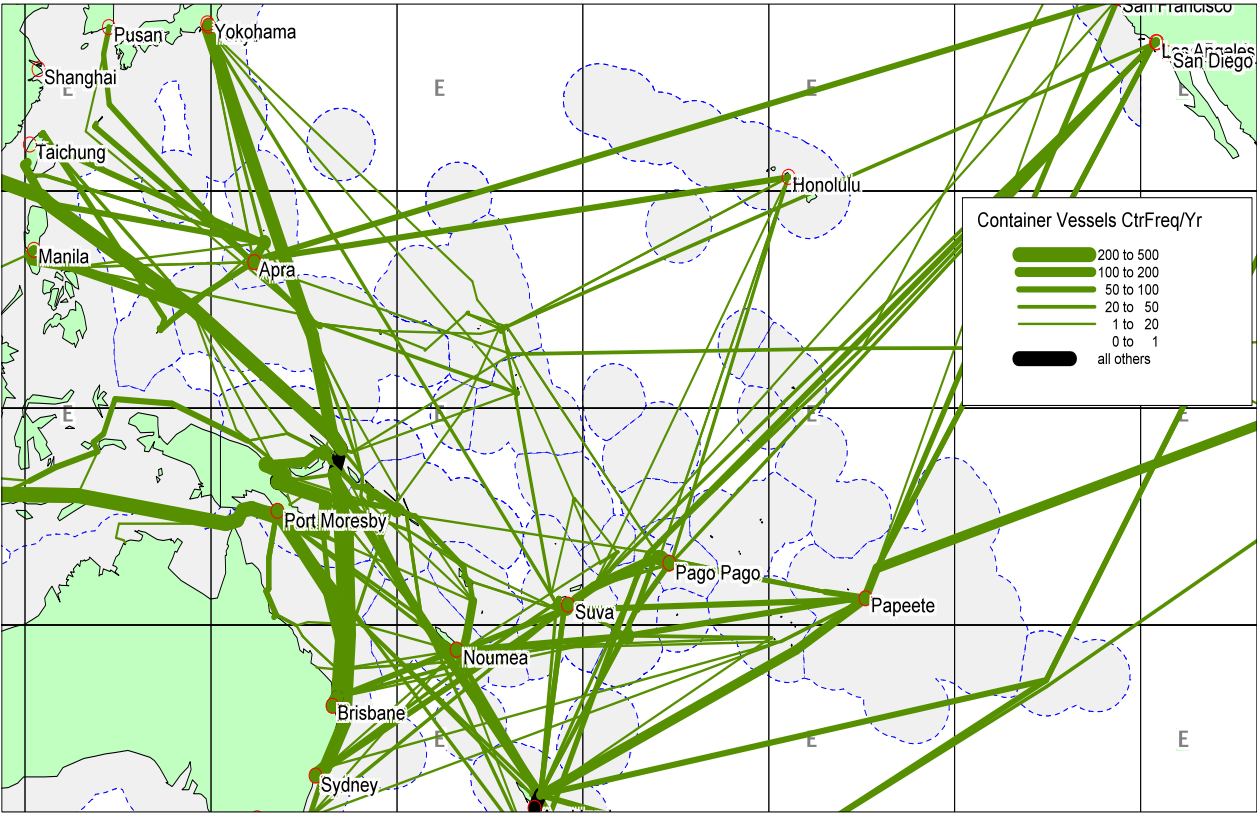


FIGURE 4: Longliners traffic in the PACPLAN Area

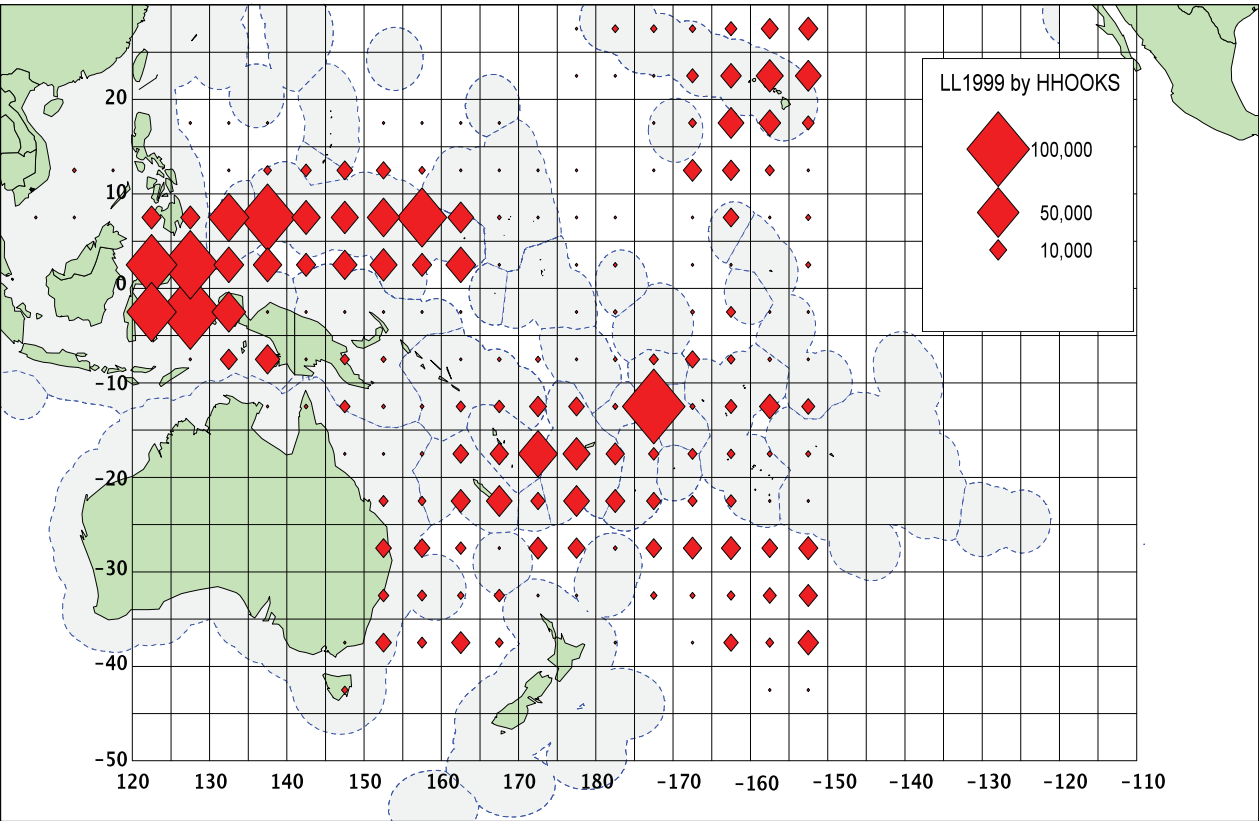


FIGURE5: Purse seiner traffic in the PACPLAN Area

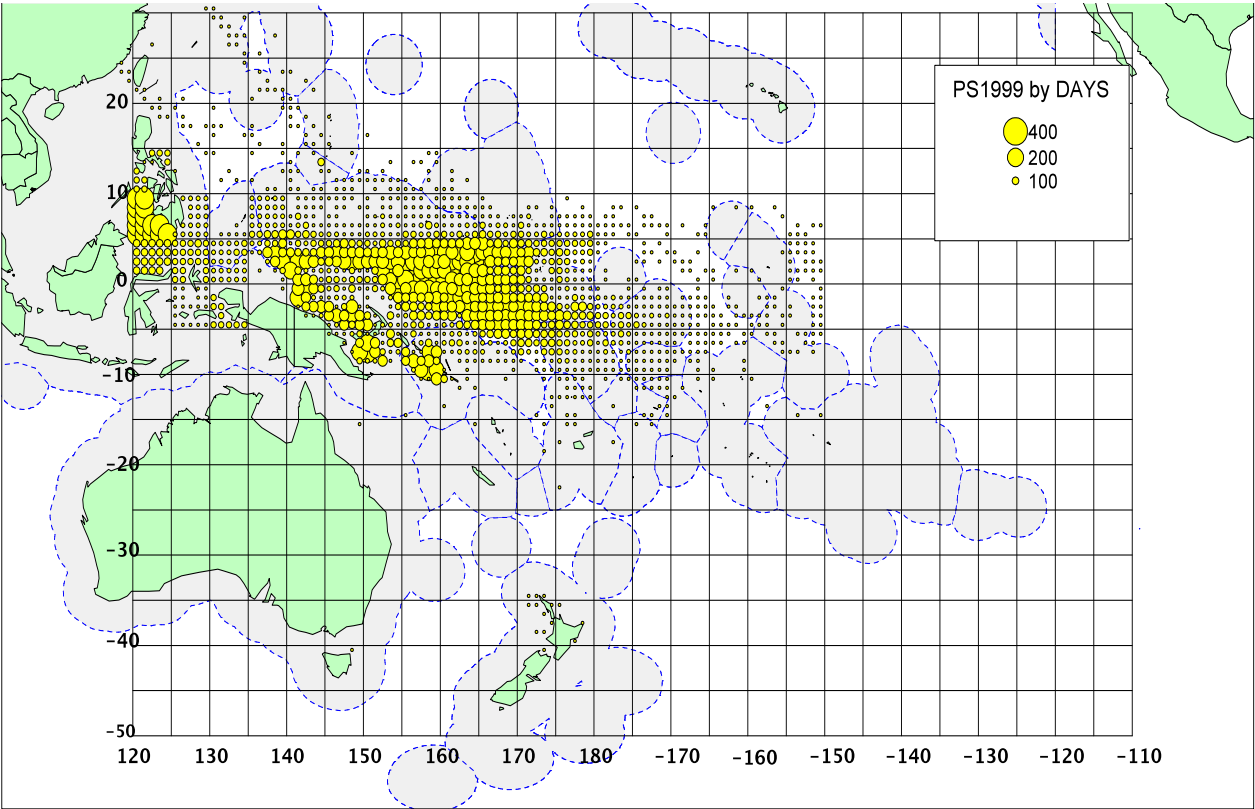


FIGURE 6: Oil Tanker Traffic in the PACPLAN Area

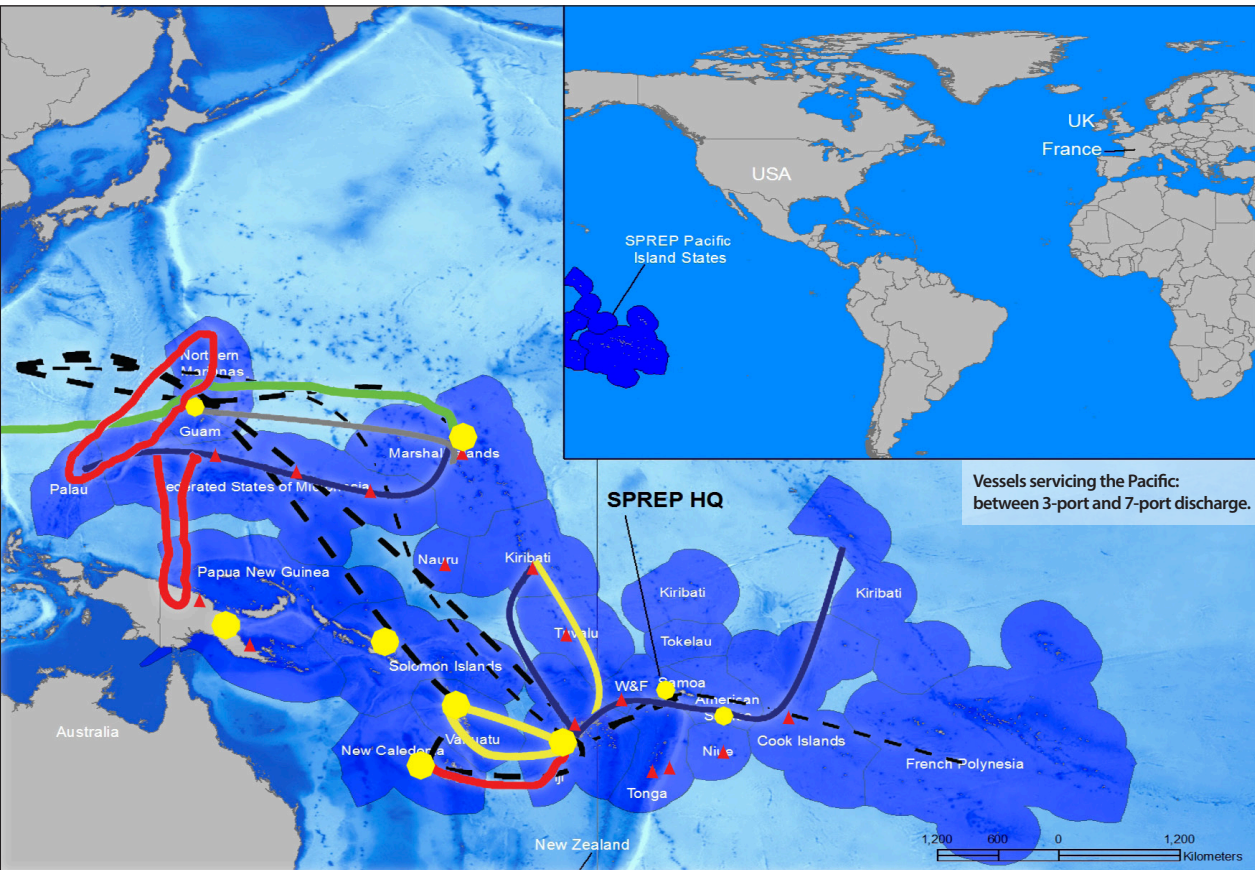


FIGURE 7: Nuclear Fuel and waste shipments by specialised vessels, world plan

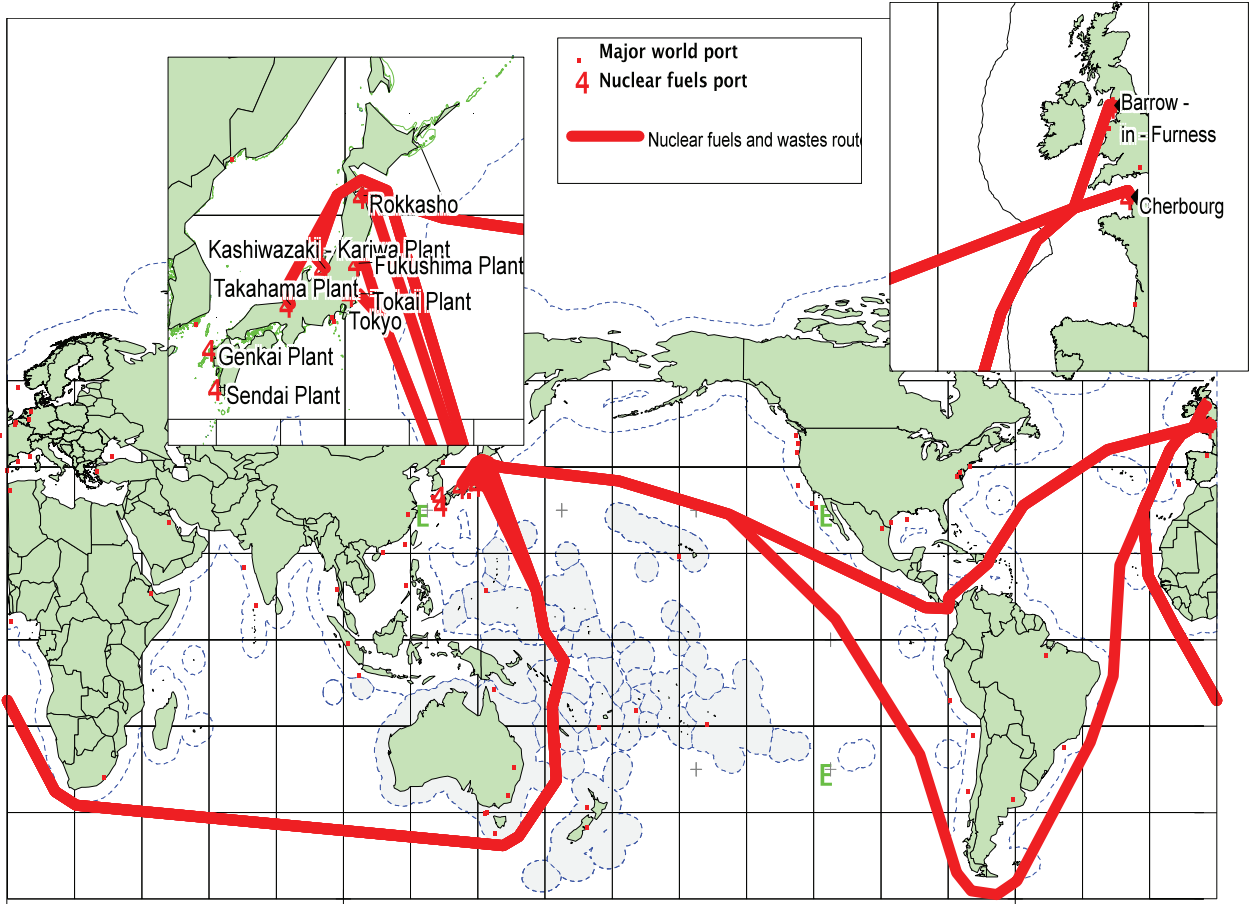


FIGURE 8: Grounding Risk Areas in the PACPLAN Area

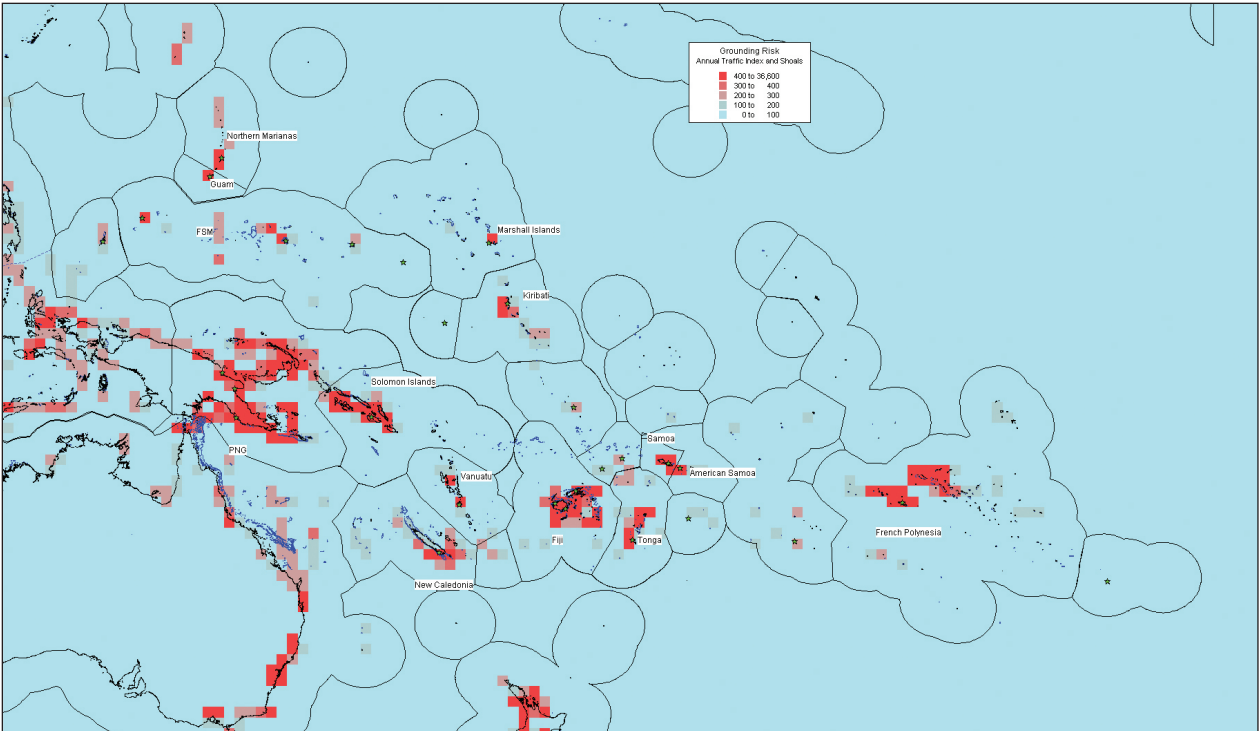


FIGURE 9: Total Casualties in the PACPLAN Area

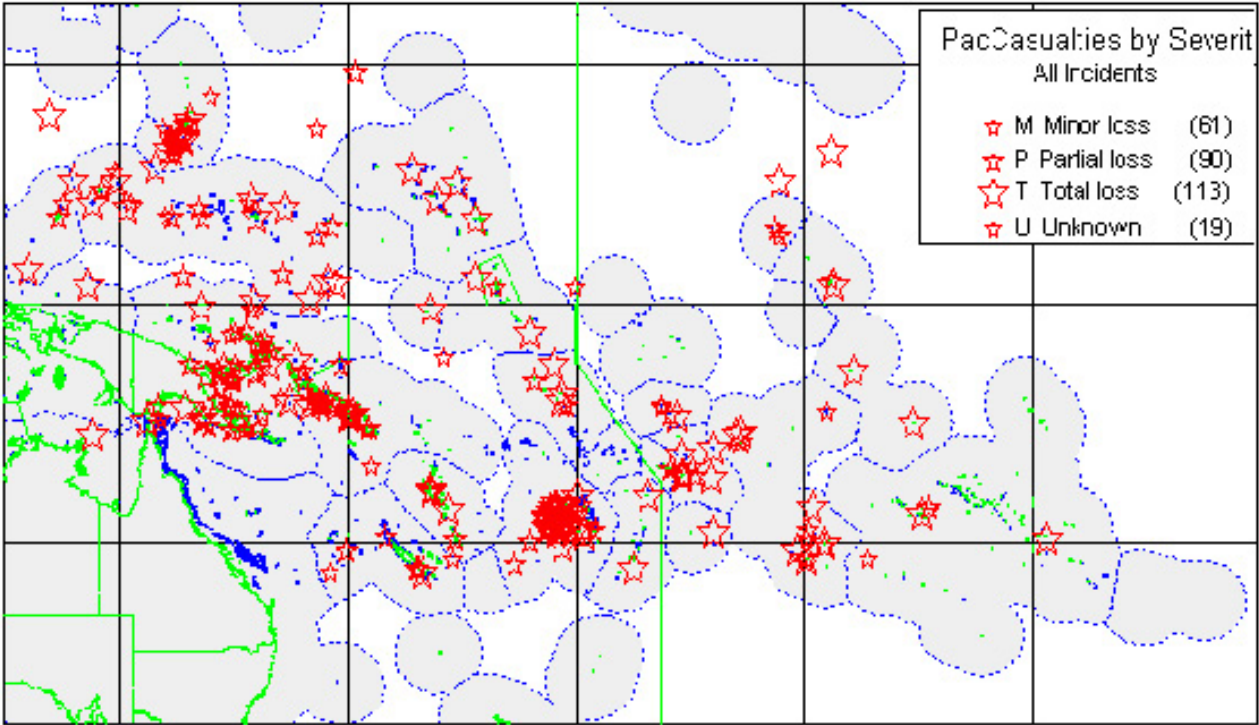
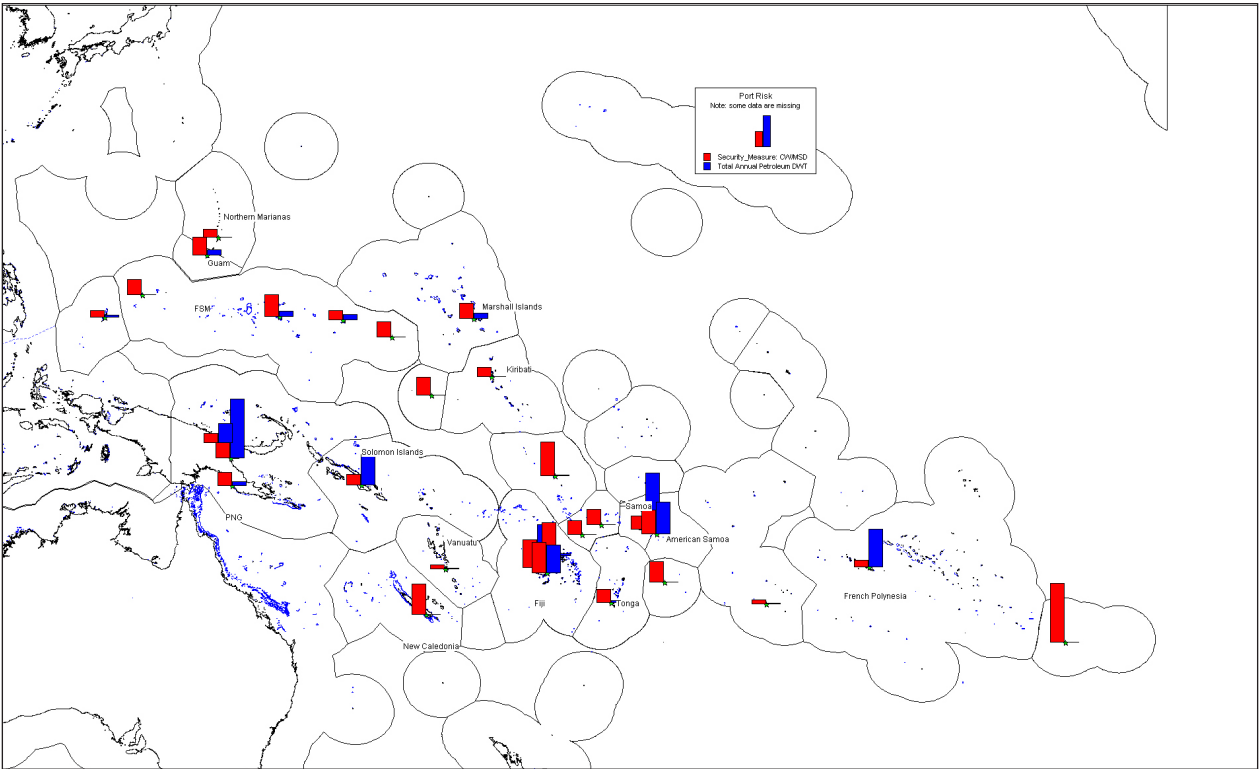


FIGURE 10: Regional Distribution of Port Risk



ATTACHMENT 7: LIST OF SPREP TRAINED MARINE SPILL RESPONDERS AS OF DECEMBER 2012

NO.	NAME	ORGANISATION	COUNTRY	TYPE OF TRAINING	PLACE OF TRAINING	DATE OF TRAINING
1	Jonetani Tawake	Fiji Ports Corporation Limited	Fiji	Level Ii	Amosc	Jun-08
2	Simione Teilai	Fiji Islands Maritime Safety Administration	Fiji	Level Ii	Amosc	Jun-08
3	Wallace Peter	Ministry Of Transport and Communications	Rmi	Level Ii	Amosc	Jun-08
4	Kalolo Bartley	Mwti	Samoa	Level Ii	Amosc	Jun-08
5	Tafaigata Toilolo	Mwti	Samoa	Level Ii	Amosc	Jun-08
6	Vuni Latu	Marine And Ports	Tonga	Level Ii	Amosc	Jun-08
21	Michael B. Livinai	Nmsa	Png	Level I	Port Moresby	Feb-08
22	Steven S. Fareho	Nmsa	Png	Level I	Port Moresby	Feb-08
23	Michael J. Pidi	Nmsa	Png	Level I	Port Moresby	Feb-08
24	Carl K. Kamang	Nmsa	Png	Level I	Port Moresby	Feb-08
25	Hanua Kora	Nmsa	Png	Level I	Port Moresby	Feb-08
26	Karo Guria	Nmsa	Png	Level I	Port Moresby	Feb-08
27	Thomas Semo	Nmsa	Png	Level I	Port Moresby	Feb-08
28	Morea Vavine	Png Ports Ltd	Png	Level I	Port Moresby	Feb-08
29	Gwema Salasie	Png Ports Ltd	Png	Level I	Port Moresby	Feb-08
30	Joseph John	Interoil Refinery	Png	Level I	Port Moresby	Feb-08
31	Eka Elore	Nmsa	Png	Level I	Port Moresby	Feb-08
32	Paul Malken	Interoil Refinery	Png	Level I	Port Moresby	Feb-08
33	Francis Aisi	Pngdf, Maritime	Png	Level I	Port Moresby	Feb-08
34	Kamilus M. Asil	Pngdf, Maritime	Png	Level I	Port Moresby	Feb-08
106	Bani Timbaci	Vanuatu Port And Harbor Department	Vanuatu	Level Ii	Suva	Oct-09
107	Lolesio Lavea	Samoa Port Authority	Samoa	Level Ii	Suva	Oct-09
108	Kemp Detanamo	Nauru Port Authority	Nauru	Level Ii	Suva	Oct-09
109	Nelperson Etse	Pohnpei Port Authority	Fsm	Level Ii	Suva	Oct-09
110	Bim Nooroa Tou	Cook Islands Port Authority	Cook Is	Level Ii	Suva	Oct-09
111	Ruoikabuti Tioon	Kiribati Port Authority	Kiribati	Level Ii	Suva	Oct-09
112	Sitalingi Payne	Tonga Port Authority	Tonga	Level Ii	Suva	Oct-09
113	Berry Willie Sofaea	Niue Bulk Fuel Corporations	Niue	Level Ii	Suva	Oct-09
114	William Barlie	Solomon Islands Port Authority	Solomon Is	Level Ii	Suva	Oct-09
115	David Deluckner	Bulk Fuel Installation	Nauru	Level Ii	Suva	Oct-09
116	Vinesh Kumar	Bp	Fiji	Level Ii	Suva	Oct-09
117	Taito Taleimaibau	Bp	Fiji	Level Ii	Suva	Oct-09
118	Dorine Singh	Mobil	Fiji	Level Ii	Suva	Oct-09
119	Tawake Sakaia	Mobil	Fiji	Level Ii	Suva	Oct-09
120	Praveen Sharma	Mobil	Fiji	Level Ii	Suva	Oct-09
121	Meli Tokalauvere	Fimsa	Fiji	Level Ii	Suva	Oct-09
122	Phillip Hill	Fimsa	Fiji	Level Ii	Suva	Oct-09
123	Emosi Navusolo	Fpcl	Fiji	Level Ii	Suva	Oct-09
124	Jolame Saukuru	Fpcl	Fiji	Level Ii	Suva	Oct-09
125	Jeke Vakararawa	Fpcl	Fiji	Level Ii	Suva	Oct-09
126	Michael Fong	Total	Fiji	Level Ii	Suva	Oct-09
127	Kym Tausia	Total	Fiji	Level Ii	Suva	Oct-09

128	Isireli Sovau	Total	Fiji	Level Ii	Suva	Oct-09
129	Roland Leong	Total	Fiji	Level Ii	Suva	Oct-09
130	Viliame Kasanawaqa	Total	Fiji	Level Ii	Suva	Oct-09
131	Tevita Qalo	Total	Fiji	Level Ii	Suva	Oct-09
132	Rex Dodo	Solomon Is	Fiji	Level Ii	Suva	Oct-09
133	Hakaumotu Fakapelea	Spc-Rmp	Fiji	Level Ii	Suva	Oct-09
134	Panapasa Vakamino	Fimsa	Fiji	Level Ii	Suva	Oct-09
135	Mr. Nooroa (Bim) Tou	Cook Islands Port Authority	Cook Is	Level Ii/Iii	Port Moresby	Dec-10
136	Mr. Vavia Tangatataia	Cook Islands Environment Services	Cook Is	Level Ii/Iii	Port Moresby	Dec-10
137	Mr. Trevayne Esiel	Fsm Petroleum Corp	Fsm	Level Ii/Iii	Port Moresby	Dec-10
138	Mr. Clayton Santos	Pohnpei State Epa	Fsm	Level Ii/Iii	Port Moresby	Dec-10
139	Mr. Meli Tokalauvere	Fimsa	Fiji	Level Ii/Iii	Port Moresby	Dec-10
140	Ms. Laisani Lewanavanua	Doe	Fiji	Level Ii/Iii	Port Moresby	Dec-10
141	Capt. Koria Tamuera	Kiribati Port Authority	Kiribati	Level Ii/Iii	Port Moresby	Dec-10
142	Mr. Noteti Karoua	Melad	Kiribati	Level Ii/Iii	Port Moresby	Dec-10
143	Mr. Kemp Detanemo	Nauru Port Authority	Nauru	Level Ii/Iii	Port Moresby	Dec-10
144	Mr. Emil Edesomel	Eqpb	Palau	Level Ii/Iii	Port Moresby	Dec-10
145	Mr. Kalolo Bartley	Mwti	Samoa	Level Ii/Iii	Port Moresby	Dec-10
146	Mr. Faleniu Alesana	Mwti	Samoa	Level Ii/Iii	Port Moresby	Dec-10
147	Ms. Rose Babaua	Ministry Of Environment	Solomon Is	Level Ii/Iii	Port Moresby	Dec-10
148	Mr. 'Onesi Tu'ifua	Ministry Of Transport	Tonga	Level Ii/Iii	Port Moresby	Dec-10
149	Mr. Tevita Kaufusi	Tonga Port Authority	Tonga	Level Ii/Iii	Port Moresby	Dec-10
150	Mr. Tepaukie Sotapu Paape	Ministry Of Transport	Tuvalu	Level Ii/Iii	Port Moresby	Dec-10
151	Mr. John Markmon Ambong Baite	Ministry Of Infrastructure And Public Utilities	Vanuatu	Level Ii/Iii	Port Moresby	Dec-10
152	Mr. Jason Martin	Otml/Png	Png	Level Ii/Iii	Port Moresby	Dec-10
153	Mr. Simon Tarak	Nmsa/Png	Png	Level Ii/Iii	Port Moresby	Dec-10
154	Mr. Fred Siroi	Nmsa/Png	Png	Level Ii/Iii	Port Moresby	Dec-10
155	Mr. Nicholas Pion	Nmsa/Png	Png	Level Ii/Iii	Port Moresby	Dec-10
156	Mr. Waroi Ulea	Nmsa/Png	Png	Level Ii/Iii	Port Moresby	Dec-10
157	Mr. Danny Wame	Pngpcl/Png	Png	Level Ii/Iii	Port Moresby	Dec-10
158	Mr. Steven Aisi	Pngpcl/Png	Png	Level Ii/Iii	Port Moresby	Dec-10
159	Mr. Iamo Vere	Pngpcl/Png	Png	Level Ii/Iii	Port Moresby	Dec-10
160	Mr. Ricardo Abrahan	Iol/Png	Png	Level Ii/Iii	Port Moresby	Dec-10
161	Mr. Whally Hera	Iol/Png	Png	Level Ii/Iii	Port Moresby	Dec-10
162	Mr. Vagi Reid	Iol/Png	Png	Level Ii/Iii	Port Moresby	Dec-10
163	Mr. Gerald Ila	Iol/Png	Png	Level Ii/Iii	Port Moresby	Dec-10
164	Mr. Kevin Holden	Iol/Png	Png	Level Ii/Iii	Port Moresby	Dec-10
165	Mr. Job Opu	Pngpcl/Png	Png	Level Ii/Iii	Port Moresby	Dec-10
166	Mr. Nooroa (Bim) Tou	Cook Islands Port Authority	Cook Is	Oprc-Hns	Port Moresby	Dec-10
167	Mr. Vavia Tangatataia	Cook Islands Environment Services	Cook Is	Oprc-Hns	Port Moresby	Dec-10
168	Mr. Trevayne Esiel	Fsm Petroleum Corp	Fsm	Oprc-Hns	Port Moresby	Dec-10
169	Mr. Clayton Santos	Pohnpei State Epa	Fsm	Oprc-Hns	Port Moresby	Dec-10
170	Mr. Meli Tokalauvere	Fimsa	Fiji	Oprc-Hns	Port Moresby	Dec-10
171	Ms. Laisani Lewanavanua	Doe	Fiji	Oprc-Hns	Port Moresby	Dec-10
172	Capt. Koria Tamuera	Kiribati Port Authority	Kiribati	Oprc-Hns	Port Moresby	Dec-10
173	Mr. Noteti Karoua	Melad	Kiribati	Oprc-Hns	Port Moresby	Dec-10
174	Mr. Kemp Detanemo	Nauru Port Authority	Nauru	Oprc-Hns	Port Moresby	Dec-10
175	Mr. Emil Edesomel	Eqpb	Palau	Oprc-Hns	Port Moresby	Dec-10
176	Mr. Kalolo Bartley	Mwti	Samoa	Oprc-Hns	Port Moresby	Dec-10

177	Mr. Faleniu Alesana	Mwti	Samoa	Oprc-Hns	Port Moresby	Dec-10
178	Ms. Rose Babaua	Ministry Of Environment	Solomon Is	Oprc-Hns	Port Moresby	Dec-10
179	Mr. 'Onesi Tu'ifua	Ministry Of Transport	Tonga	Oprc-Hns	Port Moresby	Dec-10
180	Mr. Tevita Kaufusi	Tonga Port Authority	Tonga	Oprc-Hns	Port Moresby	Dec-10
181	Mr. Tepaukie Sotapu Paape	Ministry Of Transport	Tuvalu	Oprc-Hns	Port Moresby	Dec-10
182	Mr. John Markmon Ambong Baite	Ministry Of Infrastructure And Public Utilities	Vanuatu	Oprc-Hns	Port Moresby	Dec-10
183	Mr. Jason Martin	Otml/Png	Png	Oprc-Hns	Port Moresby	Dec-10
184	Mr. Simon Tarak	Nmsa/Png	Png	Oprc-Hns	Port Moresby	Dec-10
185	Mr. Fred Siroi	Nmsa/Png	Png	Oprc-Hns	Port Moresby	Dec-10
186	Mr. Nicholas Pion	Nmsa/Png	Png	Oprc-Hns	Port Moresby	Dec-10
187	Mr. Waroi Ulea	Nmsa/Png	Png	Oprc-Hns	Port Moresby	Dec-10
188	Mr. Danny Wame	Pngpcl/Png	Png	Oprc-Hns	Port Moresby	Dec-10
189	Mr. Steven Aisi	Pngpcl/Png	Png	Oprc-Hns	Port Moresby	Dec-10
190	Mr. Iamo Vere	Pngpcl/Png	Png	Oprc-Hns	Port Moresby	Dec-10
191	Mr. Ricardo Abraham	Iol/Png	Png	Oprc-Hns	Port Moresby	Dec-10
192	Mr. Whally Hera	Iol/Png	Png	Oprc-Hns	Port Moresby	Dec-10
193	Mr. Vagi Reid	Iol/Png	Png	Oprc-Hns	Port Moresby	Dec-10
194	Mr. Gerald Ila	Iol/Png	Png	Oprc-Hns	Port Moresby	Dec-10
195	Mr. Kevin Holden	Iol/Png	Png	Oprc-Hns	Port Moresby	Dec-10
196	Mr. Job Opu	Pngpcl/Png	Png	Oprc-Hns	Port Moresby	Dec-10
197	Mr. John Tiegmai	Department Of Transportation, Comms and Infrastructure	Fsm	Level Iii	Apia	Oct-12
198	Mr. Leo Lokopwe	Department Of Transportation, Comms and Infrastructure	Fsm	Level Iii	Apia	Oct-12
199	Ms. Joann Komanta	Rmi Environmental Protection Authority	Rmi	Level Iii	Apia	Oct-12
200	Mr. John Kintaro, Jr	Palau Environmental Quality Protection	Palau	Level Iii	Apia	Oct-12
201	Mr. Telkal Sadang	Ministry Of Public Infrastructure, Industries And Commerce	Palau	Level Iii	Apia	Oct-12
202	Mr. Pawa Limu	National Maritime Safety Authority	Png	Level Iii	Apia	Oct-12
203	Mr. Simon Tarak	National Maritime Safety Authority	Png	Level Iii	Apia	Oct-12
204	Mrs. Vasa Tuisiga Saitala	Shipping / Port Officer	Tuvalu	Level Iii	Apia	Oct-12
205	Mrs. Tilia Tima	Department Of Environment	Tuvalu	Level Iii	Apia	Oct-12
206	Ms. Kelela Tonga	Ministry Of Infrastructure	Tonga	Level Iii	Apia	Oct-12
207	Mr. Patelesio Manukeu	Ministry Of Infrastructure	Tonga	Level Iii	Apia	Oct-12
208	Mr. Ioane Teburoro	Kiribati Police Service	Kiribati	Level Iii	Apia	Oct-12
209	Mr. Taulehia Pulefou	Melad	Kiribati	Level Iii	Apia	Oct-12
210	Mr. Muraai Herman	National Environment Service	Cook Is	Level Iii	Apia	Oct-12
211	Mr. Phillip Strickland	National Environment Service	Cook Is	Level Iii	Apia	Oct-12
212	Mr. Philip Hill	Maritime Safety Authority	Fiji	Level Iii	Apia	Oct-12
213	Mr. Laisenia Gade Tawalesu	Maritime Police	Fiji	Level Iii	Apia	Oct-12
214	Mr. Jeremie Kaltavara	Ministry Of Agriculture Quarantine, Forestry And Fisheries	Vanuatu	Level Iii	Apia	Oct-12
215	Mr. Erickson Sammy	Department Of Geology, Mines And Water Resources	Vanuatu	Level Iii	Apia	Oct-12
216	Mr. Kemp Detenamo	Director Maritime	Nauru	Level Iii	Apia	Oct-12
217	Ms. Samantha Kwan	Ministry Of Natural Resources and Environment	Samoa	Level Iii	Apia	Oct-12
218	Mr. Titimanu Simi	Ministry Of Natural Resources and Environment	Samoa	Level Iii	Apia	Oct-12
219	Mr. Muausa Pau Ioane	Ministry Of Natural Resources and Environment	Samoa	Level Iii	Apia	Oct-12

220	Mr. Setoa Apo	Ministry Of Natural Resources and Environment	Samoa	Level Iii	Apia	Oct-12
221	Ms. Fuatino Leota	Ministry Of Natural Resources and Environment	Samoa	Level Iii	Apia	Oct-12
222	Mr. Matau Esau	Maritime Police	Samoa	Level Iii	Apia	Oct-12
223	Mr. Veli Lalogafau	National Fire Service	Samoa	Level Iii	Apia	Oct-12
224	Mr. Tafaigata Toilolo	Ministry Of Works Transport And Infrastructure	Samoa	Level Iii	Apia	Oct-12
225	Mr. Ulisese Ah Sam	Petroleum Product Supplies	Samoa	Level Iii	Apia	Oct-12
226	Mr. Matthew Passi	Petroleum Product Supplies	Samoa	Level Iii	Apia	Oct-12
227	Ms. Tutoatasi Setu	Petroleum Product Supplies	Samoa	Level Iii	Apia	Oct-12
259	Ilatia Tuisawau	Fiji Navy	Fiji	Level Ii	Suva	Jun-12
260	Metuisela Railumu	Fiji Navy	Fiji	Level Ii	Suva	Jun-12
261	Simione Qio	Fiji Navy	Fiji	Level Ii	Suva	Jun-12
262	Sefanaia Bilivalu Tavura	Fiji Police Force	Fiji	Level Ii	Suva	Jun-12
263	Laisenia Tawalesu	Fiji Police Force	Fiji	Level Ii	Suva	Jun-12
264	Joseva Turagayawa	Fiji Ports Corporation Limited	Fiji	Level Ii	Suva	Jun-12
265	Rusiate Lacarua	Fiji Ports Corporation Limited	Fiji	Level Ii	Suva	Jun-12
266	Marika Koro	Fiji Ports Corporation Limited	Fiji	Level Ii	Suva	Jun-12
267	Jone Kuruituku	Fiji Ports Corporation Limited	Fiji	Level Ii	Suva	Jun-12
268	Makereta Usumaki Taoi	Fiji Ships and Heavy Industries Ltd	Fiji	Level Ii	Suva	Jun-12
269	Jone Radrodrao	Fiji Ships and Heavy Industries Ltd	Fiji	Level Ii	Suva	Jun-12
270	Sefanaia Fuakilau	Mobil Oil	Fiji	Level Ii	Suva	Jun-12
271	Nemani Salu	Msaf	Fiji	Level Ii	Suva	Jun-12
272	Sekope Uasolala	Msaf	Fiji	Level Ii	Suva	Jun-12
273	Eugene Young	Msaf	Fiji	Level Ii	Suva	Jun-12
274	Netani Seruwaqa	Msaf	Fiji	Level Ii	Suva	Jun-12
275	Eseroma Cakacaka	Msaf	Fiji	Level Ii	Suva	Jun-12
276	Praveen Kumar	Msaf	Fiji	Level Ii	Suva	Jun-12
277	Dhiren Chand	Msaf	Fiji	Level Ii	Suva	Jun-12
278	Koli Rakoro	Nfa	Fiji	Level Ii	Suva	Jun-12
279	Timoci Tagicaki Nakaruru	Nfa	Fiji	Level Ii	Suva	Jun-12
280	Ifereimi Vesikula	Nfa	Fiji	Level Ii	Suva	Jun-12
281	Samuela Panapasa	Pacific Energy Swp Ltd	Fiji	Level Ii	Suva	Jun-12
282	Ashendra Prasad	Pacific Energy Swp Ltd	Fiji	Level Ii	Suva	Jun-12
283	Grey Edward Vaurasi	Pacific Energy Swp Ltd	Fiji	Level Ii	Suva	Jun-12
284	Pritanshu Singh	Pacific Energy Swp Ltd	Fiji	Level Ii	Suva	Jun-12
285	Rajnish Chand	Port Denarau Marina Limited	Fiji	Level Ii	Suva	Jun-12
286	Leanne Mitchell	Port Denarau Marina Limited	Fiji	Level Ii	Suva	Jun-12
287	Sikeli Naqoli	Port Denarau Marina Limited	Fiji	Level Ii	Suva	Jun-12
288	Suneel Praveen Narayan	Total (Fiji) Ltd	Fiji	Level Ii	Suva	Jun-12
289	Ronil Royindra Singh	Total (Fiji) Ltd	Fiji	Level Ii	Suva	Jun-12
290	Savenaca Tamani	Total (Fiji) Ltd	Fiji	Level Ii	Suva	Jun-12
291	Eroni Verevukivuki	Total (Fiji) Ltd	Fiji	Level Ii	Suva	Jun-12
292	Tony Philp	Vuda Point Marina	Fiji	Level Ii	Suva	Jun-12
405	Capt. Etekieru Iotua	Marine Training Centre	Kiribati	Level I	Tarawa	Aug-11
406	Teema Biko	Melad	Kiribati	Level I	Tarawa	Aug-11
407	Arioka Kourataake	Marine Training Centre	Kiribati	Level I	Tarawa	Aug-11
408	Raimon Kabobouea	Koil	Kiribati	Level I	Tarawa	Aug-11
409	Kararua Temarebu	Koil	Kiribati	Level I	Tarawa	Aug-11
410	Naibeata Moote	Koil	Kiribati	Level I	Tarawa	Aug-11

411	Tiinoa Antonio	Koil	Kiribati	Level I	Tarawa	Aug-11
412	Mererin Ioakim	Memrd	Kiribati	Level I	Tarawa	Aug-11
413	Tenanoraoi Tokanang	Marine Division	Kiribati	Level I	Tarawa	Aug-11
414	Ioteba Tebau	Marine Training Centre	Kiribati	Level I	Tarawa	Aug-11
415	Tebuaua Itibwinnang	Kiribati Shipping Services Ltd	Kiribati	Level I	Tarawa	Aug-11
416	Karure Tekarawa	Kssl	Kiribati	Level I	Tarawa	Aug-11
417	Teweti Tetau	Kiribati Police Service	Kiribati	Level I	Tarawa	Aug-11
418	Omorete Tabureka	Marine Division	Kiribati	Level I	Tarawa	Aug-11
419	Koria Tamuera	Kpa	Kiribati	Level Ii	Tarawa	Aug-11
420	Noketi Karoua	Melad	Kiribati	Level Ii	Tarawa	Aug-11
421	John Mote	Kiribati Police Service	Kiribati	Level Ii	Tarawa	Aug-11
422	Karure Tekarawa	Kiribati Shipping Services Ltd	Kiribati	Level Ii	Tarawa	Aug-11
423	Capt. Omorete Tabureka	Marine Division	Kiribati	Level Ii	Tarawa	Aug-11
424	Katangiman	Tuc	Kiribati	Level Ii	Tarawa	Aug-11
425	Neneia Tominiko	Kpa	Kiribati	Level Ii	Tarawa	Aug-11
426	Teema Biko	Melad	Kiribati	Level Ii	Tarawa	Aug-11
427	Arioka Kourataake	Maritime Training College	Kiribati	Level Ii	Tarawa	Aug-11
428	Mele Ifatonga Tauati	Fisheries Division	Tonga	Level Ii	Nuku'alofa	Aug-11
429	Siosifa Potesio Tu'angalu	Port Authority Tonga	Tonga	Level Ii	Nuku'alofa	Aug-11
430	Taufatofua Ngalu	Friendly Island Shipping Agency	Tonga	Level Ii	Nuku'alofa	Aug-11
431	Sosefo (Joe) Nginginiolofanga	South Seas Shipping	Tonga	Level Ii	Nuku'alofa	Aug-11
432	Latu Niumataevalu Lavaki	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
433	Kepueli Tupou	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
434	Ofa Lavemaavi	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
435	Saimone Taukolo	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
436	Taniela Pepe	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
437	Toavila Havili	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
438	Viliami Fotu	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
439	Finau Holami	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
440	Lominasa Kosema Funaki	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
441	Peni Finau	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
442	Ma'afu Tupou Hakekava Selupe	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
443	Sinamoni Kauvaka	Tonga Fire Service	Tonga	Level Ii	Nuku'alofa	Aug-11
444	Aisake Fifita	Ministry Of Labour and Commerce	Tonga	Level Ii	Nuku'alofa	Aug-11
445	Viliami Vaka	Pacific Energy	Tonga	Level Ii	Nuku'alofa	Aug-11
446	Sesimoni F. Tu'unga'a	Mafff	Tonga	Level Ii	Nuku'alofa	Aug-11
447	Senitua Lavaka	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
448	Kelepi Hafiafia	Police Force (Tactical Response Group)	Tonga	Level Ii	Nuku'alofa	Aug-11
449	Samisoni Tuipulotu	Port Authority Tonga	Tonga	Level Ii	Nuku'alofa	Aug-11
450	Lofieni Halafuka	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
451	Paea Sole	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
452	Molitonil Lilopau	Ministry Of Transport (Marine Division)	Tonga	Level Ii	Nuku'alofa	Aug-11
453	Fualapaha 'Aonga Fuavao	Ministry Of Transport (Marine Division)	Tonga	Level Ii	Nuku'alofa	Aug-11
454	Setepano Fifita	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
455	Afoloka Lavaki	Friendly Island Shipping Agency	Tonga	Level Ii	Nuku'alofa	Aug-11
456	Roy Mafi	Port Authority Tonga (Floating Plant)	Tonga	Level Ii	Nuku'alofa	Aug-11
457	Takai Kaivelata	Tonga Defence Services (Navy)	Tonga	Level Ii	Nuku'alofa	Aug-11
458	Siosifa Tuipulotu Hakaumotu	Ports Authority Tonga	Tonga	Level Ii	Nuku'alofa	Aug-11

459	Semisi Tapueluelu	Tonga Defence Services (Navy)	Tonga	Level II	Nuku'alofa	Aug-11
460	Soane Vakaahi Haseli	Ministry Of Transport (Marine Division)	Tonga	Level II	Nuku'alofa	Aug-11
461	Tevita Uata	Uata Shipping	Tonga	Level II	Nuku'alofa	Aug-11
462	Fine Tohi	Dateline Transam Shipping Agency	Tonga	Level II	Nuku'alofa	Aug-11
463	Serusi Lolohea	Port Authority Tonga (Floating Plant)	Tonga	Level II	Nuku'alofa	Aug-11
464	Kula Tangimana	Tonga Maritime Polytechnical Institute	Tonga	Level II	Nuku'alofa	Aug-11
465	Tavita Koloi	Port Authority Tonga (Floating Plant)	Tonga	Level II	Nuku'alofa	Aug-11
466	Bese Fonua	Port Authority Tonga (Floating Plant)	Tonga	Level II	Nuku'alofa	Aug-11
467	Talafi Tuliluhakau	Port Authority Tonga (Floating Plant)	Tonga	Level II	Nuku'alofa	Aug-11
468	Senita Puafisi	Port Authority Tonga (Floating Plant)	Tonga	Level II	Nuku'alofa	Aug-11
469	Patelesio Manukeu	Ministry Of Transport (Marine Division)	Tonga	Level II	Nuku'Alofa	Aug-11
470	Niu Fakakovikaetau	Ministry Of Health	Tonga	Level II	Nuku'alofa	Aug-11
471	Viliani Pua	Ports Authority Tonga	Tonga	Level II	Nuku'alofa	Aug-11
472	Sylvia 'Atiola	Crown Law Department	Tonga	Level II	Nuku'alofa	Aug-11
606	Mataio Tekinene	Environment Dept	Tuvalu	Level I	Funafuti	Mar-11
607	Apisai Kilima	Tcs Shipping	Tuvalu	Level I	Funafuti	Mar-11
608	Talafou Iosefa	Tcs Shipping	Tuvalu	Level I	Funafuti	Mar-11
609	Fred Seluka	Marine Dept	Tuvalu	Level I	Funafuti	Mar-11
610	Vasa Tuisiga	Marine Dept	Tuvalu	Level I	Funafuti	Mar-11
611	Tupulaga Tausi	Marine Dept	Tuvalu	Level I	Funafuti	Mar-11
612	Nito Lipine	Marine Dept	Tuvalu	Level I	Funafuti	Mar-11
613	Tanielu Italeli	Marine Dept	Tuvalu	Level I	Funafuti	Mar-11
614	Tepaukie Sotaga	Ministry Of Communications, Fisheries And Transport	Tuvalu	Level I	Funafuti	Mar-11
615	Sumeo Silu	National Disaster Management	Tuvalu	Level I	Funafuti	Mar-11
616	Tualua Tepoga	Police	Tuvalu	Level I	Funafuti	Mar-11
617	Ken Sione	Police	Tuvalu	Level I	Funafuti	Mar-11
618	Freda Homasi	Customs	Tuvalu	Level I	Funafuti	Mar-11
619	Tusaga Iosefa	Tuvalu Maritime Training Institute	Tuvalu	Level I	Funafuti	Mar-11
620	Puanita Taomia	Tuvalu Maritime Training Institute	Tuvalu	Level I	Funafuti	Mar-11
621	Wilson Kaea	Tuvalu Maritime Training Institute	Tuvalu	Level I	Funafuti	Mar-11
622	Katepu Malaga	Tuvalu Maritime Training Institute	Tuvalu	Level I	Funafuti	Mar-11
623	Mika Elisaia	Pacific Energy	Tuvalu	Level I	Funafuti	Mar-11
624	Hesus Setsuo	Blue Bay	Palau	Level I	Koror	Sep-10
625	Manuel Daria	Kuniyoshi Fishing Company	Palau	Level I	Koror	Sep-10
626	Fennally Seklii	Div Of Marine Law Enforcement	Palau	Level I	Koror	Sep-10
627	Vincente Pua	Ppuc	Palau	Level I	Koror	Sep-10
628	Dominic Rekemsik	Ppuc	Palau	Level I	Koror	Sep-10
629	Flavin Tiaki	Bpw/Div Of Fire and Rescue	Palau	Level I	Koror	Sep-10
630	Doug Kesolei	Belau Transfer and Terminal Company	Palau	Level I	Koror	Sep-10
631	King Sam	Koror State Government	Palau	Level I	Koror	Sep-10
632	Mayleen Joshua	Nemo	Palau	Level I	Koror	Sep-10
633	Mathias Smus	Palau International Traders	Palau	Level I	Koror	Sep-10
634	Wilbert Kamerang	Palau Shipping Co	Palau	Level I	Koror	Sep-10
635	Flavin Tiaki	Div. Of Fire And Rescue	Palau	Level I	Koror	Sep-10
636	Harry Blesam	Koror State Government	Palau	Level I	Koror	Sep-10
637	Benraick Isaac	Palau Shipping Co	Palau	Level I	Koror	Sep-10

ATTACHMENT 8: MODEL MEMORANDUM OF UNDERSTANDING OR TECHNICAL AGREEMENT FOR BILATERAL CO-OPERATION

(This model MoU or TA is available in electronic format from SPREP)

MEMORANDUM OF UNDERSTANDING (MOU) OR TECHNICAL AGREEMENT (TA) BETWEEN (Responsible Authority for Government of) and (Responsible Authority for Government of) on MARINE SPILL PREPAREDNESS AND RESPONSE

1. In accordance with the provisions of the International Convention on Oil Pollution Preparedness, Response and Co-operation 1990 (OPRC 90), and the Protocol Concerning Co-operation in Combating Pollution Emergencies in the South Pacific Region (Noumea Pollution Protocol), *(insert name of Responsible Authority)* and *(insert name of Responsible Authority)*, hereafter the "Participants" which are the national Lead Agencies responsible for the overall command and control of the response to marine pollution incidents in *(country/territory)* and *(country/territory)* respectively, hereby place on record their intention to co-operate on marine spill preparedness and response.
2. In the event of a marine pollution incident, each national Responsible Authority can request assistance from the other Participant. The requesting Participant should be the sole judge of the need for such assistance.
3. Requests for assistance will be directed through *(channels to be agreed and details inserted)*.
4. The Participants intend to keep each other advised of the designations of officers authorised to request assistance under his MoU or TA.
5. Subject to availability of relevant resources under their direct control, each Participant should provide equipment, materials and personnel for the purpose of assisting the response to a marine pollution incident. The Participant receiving the request may also make equipment, materials and personnel not under the direct control of a Participant, for example those under the control of the oil industry, available following a special approach for those resources.
6. When requesting equipment, the requesting Participant should itemise the equipment by referencing the type, name, size etc. from the national equipment inventory lists as provided from time to time.
7. Reimbursement of costs of assistance will be determined in accordance with the provisions of OPRC 90.
8. Experienced personnel should accompany specialised equipment at the discretion of the providing Participant.
9. To facilitate Customs requirements all equipment and materials will be entered on behalf of the government of the requesting party.
10. Transport of equipment, materials and personnel should be by the most convenient means and should be arranged at the time of the incident after consultations between each Participant.
11. Each Participant intends to regularly consult on matters relating to marine spill response, including exchanging:
 - information on changes in equipment and materials;
 - copies of contingency plans and marine pollution laws;
 - information on significant pollution incidents;
 - and conducting joint exercises and training activities.
12. The Participants intend to co-operate in the enforcement of marine pollution laws.
13. This MoU or TA becomes operative at the date of signing and remains so unless discontinued by either Participant, in which event it should endeavour to give the other Participant six months notice in writing.

Signed in duplicate at *(insert location)* on this *(insert date)* day of *(insert month/year)*

.....
(insert name/ position of authorised signing officer)

.....
(insert name/position of authorised signing officer)

ATTACHMENT 9: STANDARD REQUEST FOR ASSISTANCE FORM*(This standard form is available in electronic format from SPREP if required)***PACPLAN****PACIFIC ISLANDS REGIONAL MARINE SPILL CONTINGENCY PLAN****REQUEST FOR ASSISTANCE**

Requesting Country/Territory:

Responsible Authority:

Contact person:

Phone:

Fax:

Email:

Request to:

Fax:

Nature of Pollution Incident:

Type of pollutant spilled:

Quantity:

Potential quantity of pollutant:

Location of spill (Latitude and Longitude):

Source of spill:

Environmental impacts (actual and threatened):

Action taken to date:

Assistance Required:

Technical Advice? ☐ If yes, in what areas?Personnel? ☐ If yes, what areas of expertise?:Equipment? ☐ If yes, what types and for what purpose?:Are customs, immigration and quarantine procedures cleared for incoming personnel and equipment? ☐

Details:

Are logistics, including transport and accommodation, in place for incoming personnel and equipment? ☐

Details:

(Attach additional information if required)

ATTACHMENT 10.1: GUIDELINE TO TIER 1 AND 2 EQUIPMENT STOCKPILE

MODEL TIER 2 KIT FOR SOUTH PACIFIC ISLAND PORTS

Item	Quantity	Comments
Fence boom	150m	Quantities of these may vary but a minimum of 300m total is recommended
Curtain boom	150m	
Shore sealing boom	150m	
Air inflation and water ballast pumps	1 set	
Towing ends	6 sets	
Anchor connections	4 sets	
Temporary storage	2	10,000 litre capacity self supporting or frame and tank design
Sorbent pads	300	e.g. 450mm x 450mm
Sorbent boom	200m	
Skimmer	1	Passive weir skimmer
Recovery pump*	1	
Anchor kits	15 x 20kg kits	Kit includes anchor, chain, rope, buoys and fittings.

** It would be preferable if water ballast pump can be fitted with oil resistant seals so they can double as recovery pumps*

MODEL TIER 2 KIT FOR NORTH PACIFIC ISLAND PORTS

Item	Quantity	Comments
Fence boom	100m	Quantities of these may vary but a minimum of 300m total is recommended
Curtain boom	200m	
Shore sealing boom	40m	
Air inflation and water ballast pumps	1 set	
Towing ends	6 sets	
Anchor connections	4 sets	
Temporary storage	3	10,000 litre capacity self supporting or frame and tank design
Sorbent pads	300 packages	e.g. 450mm x 450mm
Sorbent boom	200m	
Sorbent Sweep	200m	
Skimmer with suitable diesel pump	1	Passive weir skimmer
transfer pump	1	Peristaltic (none priming)
3" recovery pump hose	40m	
Anchor kits	15 x 20kg kits	Kit includes anchor, chain, rope, buoys and fittings.

MODEL TIER 1 KIT FOR PACIFIC ISLAND PORTS

Item	Quantity	Comments
Fence boom	100m	Quantities of boom may vary but a minimum total of 200m is recommended
Curtain boom	100m	
Shore sealing boom	100m	
Air inflation and water ballast pumps*	1 set	
Towing ends	4 sets	
Anchor connections	2sets	
Temporary storage	2	10,000 litre capacity self supporting or frame and tank design
Sorbent pads	200	e.g. 450mm x 450mm
Sorbent boom	100m	
Skimmer	1	Passive weir skimmer
Recovery pump*	1	
Anchor kits	10 x 20kg kits	Kit includes anchor, chain, rope, buoys and fittings

** It would be preferable if water ballast pump can be fitted with oil resistant seals so they can double as recovery pumps*

ATTACHMENT 10.2: EQUIPMENT INVENTORY

This is an inventory of oil spill equipment in each of the major stockpiles within the PACPLAN Area of operation:

- American Samoa (USCG and oil industry/contractor)
- Fiji (Oil Industry)
- Guam (USCG and oil industry/contractor)
- New Caledonia (French Navy).

And the most significant stockpiles of equipment adjacent to the PACPLAN Area of Operations:

- Auckland (New Zealand National Plan resources).
- Brisbane, Darwin, Melbourne, Sydney and Townsville (Australian National Plan resources)
- Geelong (AMOSC)
- Hawaii (USCG)
- San Francisco (USCG Pacific Strike Team)
- Singapore (OSRL)

GROUP A – American Samoa, Guam, Hawaii and San Francisco (To be updated)

EQUIPMENT DESCRIPTION <i>Inventory last revised: mm/dd/yy</i>	PAGO PAGO	GUAM	HAWAII	SAN FRANCISCO
SPILLED OIL RECOVERY				
Skimmer Vessel System				
Skimmer System e.g. Weir				
Booms (type, size and O/A length)				
Boom handling Boat (size and O/A length)				
Boom tending boats (size and O/A length)				
Oil Storage Bladders (size)				
CASUALTY OFFLOADING				
Pump transfer system (type)				
Floating hose system				
Fender system (size)				
ANCILLARY EQUIPMENT				
Command system (e.g. van, trailer)				
Communications system (satellite phones)				
Oil/water separator (size and type)				
Foreshore clean-up system (type and size)				

GROUP B – Brisbane, Darwin, Melbourne, Sydney, Townsville, Cairns, Geelong

The equipment listing for Brisbane, Darwin, Melbourne, Sydney, Townsville, and Cairns can be found below.
 Geelong (AMOS) stockpile list can be downloaded from the following site –
<http://www.amosc.com.au/equipment.php>

MOSES NUMBER	ITEM	CHILDREN ITEMS	QTY
BRISBANE – MACARTHUR AVENUE EAST, PINKENBA			
PDI76608	Containment-Boom-Shoreline-Structureflex Land Sea 1/5		320
PDJ6377	Containment – Sweep System – Nofi Vee		1
PAG106373		BOOM REEL RECOVERY NOFI 'V' SWEEP	
PAG106373		NOFI 'V' SWEEP EXTENDER – SHORT	20m
PAG106373		NOFI 'V' SWEEP EXTENDER – LONG	100m
PAG106373	Containment – Boom – Offshore – Rapid Response Ocean High Sprint Boom		300m
PAH5136	COMPRESSOR, PORTABLE, HONDA 3.5hp		1
PAK12471	DECONTAMINATION STATION – TOWN		1
PDA109481	DECONTAMINATION STATION REMOTE		1
PDA106115	DECONTAMINATION STATION REMOTE		1
PDA12612	DECONTAMINATION STATION REMOTE		1
BP111792	PUMP WATER ONGA/HONDA		1
PAH1171	PUMP, SHORELINE FLUSHING, LARGE		1
PAL107189	PUMP, TRANSFER, DISPERSANT PACIFIC/HONDA		1
PAM5473	PUMP, SALVAGE, AMSA PATTERN		1
PAM4340	PUMP, SALVAGE, AMSA PATTERN		1
PAM5128	PUMPING SET OFFLOADING MARFLEX		1
PAM5129	PUMPING SET OFFLOADING MARFLEX		1
PAM4319	PUMP SET OFFLOADING THUNE EUREKA		1
PAM105341	PUMP SET, SALVAGE, TSB OFFLOADING		1
PAM11983	PUMP SET, SALVAGE, TSB OFFLOADING		1
PAH105280	PUMP, SHORELINE FLUSHING, SMALL		1
PDD4379	SKIMMER, ROPE MOP, OMI 260		1
IP111776	INFLATOR, BOOM, BACK PACK, STIHL BR 420		1
	AFEDO single point spray system		1
	AFEDO single point spray system		1
WCE9900	Storage – Towable – Lancer Barge 25t		1
wce9901	Storage – Towable – Lancer Barge 25t		1
PBD109508	Storage – Stationary – Flexidam 10t, Structureflex		1
PBD109509	Storage – Stationary – Flexidam 10t, Structureflex		1
PBD105401	Storage – Towable – TSB, Canflex 10t		1

MOSES NUMBER	ITEM	CHILDREN ITEMS	QTY
PBD105400	Storage – Towable – TSB, Canflex 10t		1
PBD105399	Storage – Towable – TSB, Canflex 10t		1
PBD105398	Storage – Towable – TSB, Canflex 10t		1
PBD12519	Storage – Towable – TSB, Canflex 10t		1
PBD105402	Storage – Towable – TSB, Canflex 10t		1
PBD105407	Storage – Towable – TSB, Canflex 25t		1
PBD105404	Storage – Towable – TSB, Canflex 25t		1
PBD105403	Storage – Towable – TSB, Canflex 25t		1
PBD105397	Storage – Towable – TSB, Canflex 25t		1
PBD105405	Storage – Towable – TSB, Canflex 50t		1
PBD105396	Storage – Towable – TSB, Canflex 50t		1
PBD105395	Storage – Towable – TSB, Canflex 50t		1
PAL122098	PUMP, TRANSFER, DISPERSANT FIXED WING		1
PAL4919	PUMP, TRANSFER, DISPERSANT HONDA/PACIFIC		1
PDK4289	SPRAY BUCKET, DISPERSANT, HELI, SIMPLEX6810		1
WHYTE ISLAND – PORT OF BRISBANE 18 HOWARD SMITH DRIVE, PORT OF BRISBANE			
WCF4278	Recovery – Oil Recovery Vessel – Marco Harbour 28,"Alpha"		1
PAN105279		MOTOR, OUTBOARD, HONDA, 4 STROKE, 75HP, Port	1
PAN105278		MOTOR, OUTBOARD, HONDA, 4 STROKE, 75HP, Strb	1
VCA4282		TRAILER, MARCO, TANDEM AXLE	1
WCE5082	BARGE, RECOVERED OIL, ALUMINIUM, 9t, 'TIGRIS'		1
PDA5471	SKIMMER, WEIR, DESM1 250		1
		Power Pack	1
		Desmi Hydraulic and Dischage Hose Reel	1
		Boom Clearance Tube	1
DARWIN – OIL SPILL SHED, EAST ARM WHARF, BERRIMAH, DARWIN			
PDI107776	Containment – Boom – Shoreline – Structureflex Land Sea		100m
PDI11634	Containment – Boom – Shoreline – Structureflex Land Sea		100m
PDI12491	Containment – Boom – Shoreline – Structureflex Land Sea		140m
PDI12520	Containment – Boom – Shoreline – Structureflex Land Sea		200m
PDF7661A	BOOM, SELF BOUYANT, SLICKBAR, Mk32		600m
PDH4239	Containment – Boom – General Purpose – Self Inflating – Versatech Zoom 12/18		350m
PBD112594	TOWABLE STORAGE BAG 20t COVERTEX		1
BP111803	PUMP, BALLASTING, ONGA/HONDA		1
BP111802	PUMP, BALLASTING, ONGA/HONDA		1

MOSES NUMBER	ITEM	CHILDREN ITEMS	QTY
	PUMP, BALLASTING, ROBIN		1
	PUMP, BALLASTING, ROBIN		1
PAL13003	PUMP, DISPERSANT TRANSFER, DAVEY		1
PAL107856	PUMP, DISPERSANT TRANSFER, FIXED WING		1
PDD4463	SKIMMER, ROPE MOP, ORI PIRANHA 1000		1
PDK13008	BUCKET, SPRAY, DISPERSANT, HELICOPTER, SIMPLEX 6810		1
PDK5098	BUCKET, SPRAY, DISPERSANT, HELICOPTER, SIMPLEX 6810		1
PBD4475	Storage – Towable – Recovered Oil Tank, Transpac 2.6t		1
PBD4385	Storage – Towable – Recovered Oil Tank, Transpac 2.6t		1
VCA4229	TRAILER, BOX, TANDEM AXLE		1
	BOOM, INFLATABLE, GP, CANADYNE		100m
	BOOM, INFLATABLE, GP, CANADYNE		100m
	BOOM, INFLATABLE, GP, CANADYNE		100m
	BOOM, INFLATABLE, GP, CANADYNE		100m
	BOOM, INFLATABLE, GP, CANADYNE		100m
	Containment – Boom – Offshore – Rapid Response Ocean High Sprint Boom		300m
	Containment – Boom – Offshore – LAMOR Heavy Duty Open Water		
	Wild life kit		1
MELBOURNE – UNIT 5 10-16 SOUTHEY STREET, WILLIAMSTOWN NORTH			
PDJ11636	Containment – Boom – Shoreline – Structureflex Land Sea		
PDI2494	Containment – Boom – Shoreline – Structureflex Land Sea		
2494	Robin Water Pump		
PDG4265	BOOM, INFLATABLE VIKOMA OCEAN 1500		
PDH4279	Containment – Boom – General Purpose – Self Inflating – Versatech Zoom 12/18		
PDH4847	Containment – Boom – General Purpose – Self Inflating – Versatech Zoom 12/18		
	Containment – Boom – Offshore – Rapid Response Ocean High Sprint Boom		
	Containment – Boom – Offshore – Roulands Ro-Bay 1500		
	Containment – Sweep System -Current Buster		
PDI112606	BOOM, BEACH, CANADYNE SHORELINE BARRIER		
PDI112605	BOOM, BEACH, CANADYNE SHORELINE BARRIER		
PDI112604	BOOM, BEACH, CANADYNE SHORELINE BARRIER		
PDI112601	BOOM, BEACH, CANADYNE SHORELINE BARRIER		
PDI112600	BOOM, BEACH, CANADYNE SHORELINE BARRIER		
PDI112599	BOOM, BEACH, CANADYNE SHORELINE BARRIER		
PBD112593	TOWABLE STORAGE BAG COVERTEX 20t		
BP111796	PUMP, WATER, ONGA/HONDA		
BP111795	PUMP, WATER, ONGA/HONDA		
PAL12209E	PUMP, DISPERSANT TRANSFER FIXED WING		

MOSES NUMBER	ITEM	CHILDREN ITEMS	QTY
PAM10976	PUMP, SALVAGE, ELASTEC S3E		
SH5470	SKIMMER HEAD – WEIR – DESMI 250		
	Lamor 50T weir skimmer		
PDD4961	SKIMMER, ROPE MOP, OMI 140		
PDD4964	SKIMMER, ROPE MOP, OMI 260		
PDD4452	SKIMMER, ROPE MOP, ORI BARRACUDA 2000		
PDE4429	SKIMMER, BELT, ROADSIDE, SHARK 2000 SERIES		
PDK4257	SPRAY BUCKET, DISPERSANT, HELI, SIMPLEX 6810		
IP111780	Ancillary – Blower Back-Pack – Stihl BR420		
IP111779	Ancillary – Blower Back-Pack – Stihl BR420		
PBD5114	Storage – Towable – Recovered Oil Tank, Transpac 2.6t		
PBD5115	Storage – Towable – Recovered Oil Tank, Transpac 2.6t		
PBD4407	Storage – Towable – Recovered Oil Tank, Transpac 2.6t		
PBD4992	Storage – Towable – Recovered Oil Tank, Transpac 2.6t		
PBD5513	Storage – Towable – Recovered Oil Tank, Transpac 2.6t		
PBD4415	Storage – Towable – Recovered Oil Tank, Transpac 2.6t		
PBD4991	Storage – Towable – Recovered Oil Tank, Transpac 2.6t		
PBD4990	Storage – Towable – Recovered Oil Tank, Transpac 2.6t		
PBD4989	Storage – Towable – Recovered Oil Tank, Transpac 2.6t		
VCA4361	TRAILER BOAT, Single Axle		
VCA4980	TRAILER, BOAT, SINGLE AXLE		
VCA	TRAILER, BOAT, SINGLE AXLE		
WCF4969	Recovery – Oil Recovery Vessel – Marco Harbour 28,"Charlie"		
	BEACH TECH Sweepy		
	LAMOR BEACH TECH SWEEPY		
	AFEDO single point spray system		
	AFEDO single point spray system		

GLEBE SYDNEY – SOMERVILLE RD GLEBE

ITEM	QTY
Containment – Boom – Offshore – Rapid Response Ocean High Sprint Boom	300m
AFEDO single point spray system	1
AFEDO single point spray system	1
Containment – Boom – Shoreline – Structurflex Land Sea	460m
PUMP, BALLASTING, BOOM, BEACH, STRUTURFLEX LAND SEA	1
Ancillary – Anchor – Large, Set of 6	1 set
Containment – Boom – Offshore – Roulands Ro-Bay 1500	600m
Containment – Boom – Offshore – Roulands Ro-Bay 1500	600m

ITEM	QTY
PUMP, BALLASTING, BOOM, BEACH, STRUTURFLEX LAND SEA	1
PUMP, BALLASTING, BOOM, BEACH, ONGA/HONDA	1
PUMP, DISPERSANT TRANSFER, FIXED WING	1
SPRAY BUCKET, DISPERSANT, HELICOPTER, SIMPLEX 6810	1
SPRAY BUCKET, DISPERSANT, HELICOPTER, SIMPLEX 6810	1
Containment – Boom – General Purpose – Inflatable, Structureflex GP	125m
Containment – Boom – General Purpose – Inflatable, Structureflex GP	125m
Containment – Boom – General Purpose – Inflatable, Structureflex GP	125m
Containment – Boom – General Purpose – Inflatable, Structureflex GP	100m
Containment – Boom – General Purpose – Inflatable, Structureflex GP	125m
Storage – Towable – TSB, Canflex 16t	1
Storage – Towable – TSB, Canflex 50t	1
Recovery – Oil Recovery Vessel – Marco Harbour 28,"Anadara"	1
Blower Backpack Sthil SR400	1
BackPack Blower	1
Skimmer Hoylet Power Pack	
29 Ton Towable Storage Bag	1
PORT BOTANY – INTERNATIONAL TERMINAL ACCESS ROAD	
Recovery – Oil Recovery Vessel – Marco Harbour 28,"Bravo"	1
TOWNSVILLE – 60 ROSS ROAD	
Containment – Boom – Offshore – Rapid Response Ocean High Sprint Boom	300m
AFEDO single point spray system	1
AFEDO single point spray system	1
Containment – Boom – Shoreline – Structureflex Land Sea	120m
Containment – Boom – Offshore – Roulands Ro-Bay 1500	600m
Containment – Boom – General Purpose – Self Inflating – Versatech Zoom 12/18	625m
Containment – Sweep System – Nofi Vee	1
PUMP, WATER, ONGA/HONDA ENGINE	1
PUMP, WATER, ONGA/HONDA ENGINE	1
PUMP, DISPERSANT TRANSFER, FIXED WING	1
PUMP, DISPERSANT TRANSFER, PACIFIC/HONDA	1
SKIMMER, WEIR, PHAROS GT185	1
SKIMMER, ROPE MOP, OMI 140	1
BUCKET, SPRAY, DISPERSANT, HELI, SIMPLEX 6810	1
Ancillary – Blower Back-Pack – Stihl BR420	1
Ancillary – Blower Back-Pack – Stihl BR420	1
Storage – Towable – TSB, Covetex 20t	1
Storage – Towable – TSB, Covetex 20t	1

ITEM	QTY
Storage – Towable – Recovered Oil Tank, Transpac 2.6t	1
Storage – Towable – Recovered Oil Tank, Transpac 2.6t	1
Storage – Towable – Recovered Oil Tank, Transpac 2.6t	1
Storage – Towable – Recovered Oil Tank, Transpac 2.6t	1
Storage – Towable – Recovered Oil Tank, Transpac 2.6t	1
Recovery – Oil Recovery Vessel – Marco Harbour 28 “Natica”	1
CAIRNS – 64-66 TINGIRA ST	
Containment – Boom – Offshore – Roulands Ro-Bay 1500	PDG
Containment – Boom – General Purpose – Self Inflating – Versatech Zoom 12/18	300m
PUMP DISPERSANT TRANSFER HONDA PACIFIC	PAH

GROUP C – Auckland, New Caledonia, Fiji and Singapore

Equipment Description Inventory last revised: 28/11/12

	AUCKLAND	NEW CALEDONIA	FIJI (SUVA AND VUDA)
SPILLED OIL RECOVERY			
Skimmer Vessel System	1 DIP Skimmer System		
Skimmer System e.g. Weir	2 Global Weir, 1 Minimax Weir, 2 Terminator Weir, 2 Terminator Disc/brush cassette attachment, 1 Komara 12K disc, 1 Komara 7K disc, 2 Ramjet Rope mop, 4 Omi and Aquaguard Rope mop, 2 Aquaguard Disc/brush	1 KOMARA 20 2 weir FOILEX TDS 200 1 brush LAMOR	PE: 3 Canadyne 12/18 multiskimmer brush and disc 3 Pacific weir MSAF: 2 weir skimmers Mobil: 2 Lamor minimax 20W brush skimmer
Pump Systems	6 – 5 hp x water pump 2 Framo TK5 150T/hr 3 Framo TK6 500T/hr 2 Spate pumps 30T/hr	2 AQUAFAST floating motor pump 1hydraulic power pack FOILEX TDS 200 1oil transfer pump KOMARA 20 1hydraulic power pack KOMARA 20	MSAF: 3 water pumps Mobil: 1 Honda pump
Booms (type, size and O/A length)	3 Ro-Boom 1500mm on reel 1 current buster on reel 10 Fence boom 750mm (100m lots) 10 land sea boom (80m lots) 5 Rapid deployment boom (99m lots) 10 General purpose boom 20m lengths		TOTAL: 360m fence booms PE: 240m land sea booms 520m fence boom DW600 220m fence boom DW800 MSAF: 210m fence boom 240m land sea boom Mobil: 400m fence boom DW600 60m land sea booms 180m fence boom 400m boom reel

Boom handling	1 x 5.5m RIB 60hp	30 boom on stainless steel reel	
Boat (size and O/A length)	1 x 4.5m Al hull 40hp	REYCAU 130 (High sea's boom)	
	1 x 8m oil recovery vessel 180hp	20 boom on stainless steel reel	
	6 x 2.5m hard plastic muck boat.	BROCHIER INF 600 (High sea's boom)	
		15 port boom STRUCTURFLEX	
		10 oil boom CANARIES 120 (Port boom)	
Boom tending boats (size and O/A length)			Total 1 small outboard PE: 2 x 70hp boats MSAF: 2 x 90hp boats
Oil Storage	4 Frame Tanks 25T	1 collapsible oil recovery tanks	PE: 3 x 5000Ltr tow tank
Bladders (size)	2 Frame Tanks 15T	10000L (FLEXIDAM)	Mobil: 1 x 5000Ltr tow tank
	2 Flexidams 25T	2 floating storage bladders 6m3	1 x 2000Ltr tow tank
	2 Flexidams 10T	4 floating storage bladders	1 x 5000Ltr fast tank
	1 Flexidams 5T	on stainless steel reel 16m3	
	2 Tow Tanks 5T	MUSTHANE	
	4 Tow Tanks 10T	3 storage rack STRUCTURFLEX	
	2 Inflatable barges 100T	1 containerised containainment recovery barge POLLUTANK 50M3	
	3 Sea Slugs 25T	1 containerised containainment boom systems REYCAU 130	
	2 Sea Slugs 10T	1 containerised containainment boom systems CANARIES 120	
		1 containerised containainment FOILEX TDS 200	
		1 oil spill recovery barge POLLUTANK 100M3	
		1 containerised containainment recovery barge POLLUTANK 100M3	
Dispersant systems	4 x 50L spray sets		
	2 x 1000L helo spray buckets		
	2 Afedo nozzle 50TS		
	1 Afedo nozzle 100TS		
Dispersants	12500ltrs Gamlen OSD LT		TOTAL 600ltres
	2260ltrs Shell VDC		
	26720ltrs Corexit 9500		
	10360ltrs Corexit 9527		
	61600ltrs Slickgone LTSW		
	16000ltrs Tergo 2-005		

CASUALTY OFFLOADING

Pump transfer system (type)

Floating hose system

Fender system (size) 1 fender system 3mx1.5m
5 fender system 5mx2.5m

ANCILLARY EQUIPMENT

Command system (e.g. van, trailer) none

Communications system (satellite phones)	1 satellite phone 12 VHF, 6 charger pods	2 VHF Mobile phones
Oil/water separator (size and type)		
Foreshore clean-up system (type and size)	10 foreshore clean-up beach flush 5 inflatable blowers	none
	4 air shelters 1 wildlife trailer 10 vent covers 3 lighting sets	PE: 3 absorbent incinerators.

OSRL equipment list and status report can be downloaded from the following site:

<http://www.oilspillresponse.com/activate-us/equipment-stockpile-status-report>

ATTACHMENT 11: CLAIMS GUIDE

1. INTRODUCTION

This Manual is a guide for the filing of claims. Its purpose is to assist claimants by listing the particulars which a claim should contain and by explaining the nature of the supporting documentation which is required. It does not address legal questions but is intended to give information of a practical nature in respect of the presentation of claims. In case of doubt, it is recommended that claimants seek appropriate advice.

2. HOW SHOULD A CLAIM BE PRESENTED?

A claim should be made in writing (including telefax or telex). In all cases, a claim should be presented clearly and in sufficient detail so that it is possible to assess the amount of the damage on the basis of the facts and the documentation presented. Each item of a claim must be supported by an invoice or other relevant documentation, such as worksheets or explanatory notes. In the case of clean-up measures, it is essential that the expenses are linked with the actions taken at specified work sites.

It is essential that comprehensive records are kept detailing all operations and expenditures resulting from the incident. Daily work sheets should be compiled by supervisory personnel to record the operations in progress, the equipment in use, where and how it is being used, the number of personnel employed, how and where they are deployed, and the materials consumed. Records are facilitated by using standard worksheets (see Daily Worksheet attached) designed to suit the particular circumstances of the spill and the response organisation.

Major expenditures are often incurred for the use of aircraft, vessels, specialised equipment, heavy machines, truck and personnel. Some of these resources may be government owned and others may be the subject of contractual arrangements. Detailed records should be kept of actual time employed on clean-up and for what purpose. The appointment of a financial controller to the response team may be valuable, to ensure that adequate records are kept and that expenditure is controlled.

The speed with which claims are settled depends largely on how long it takes for claimants to provide the information required. It is in the interest of claimants, therefore, to follow this Manual as closely as possible.

3. WHAT PARTICULARS SHOULD A CLAIM CONTAIN?

3.1 GENERAL

Each claim should contain the following basic information:

- a) The name and address of the claimant or any representative;
- b) The identity of the ship involved in the incident;
- c) The date, place and specific details of the incident, the type of oil involved;
- d) The clean-up measures taken and/or the kind of pollution damage sustained, as well as the places affected, and
- e) The amount of the claim.

The following general criteria apply to claims:

- a) Any expense/loss must actually have been incurred;
- b) Any expense must relate to measures which are deemed reasonable and justifiable;
- c) A claimant's expense/loss or damage is admissible only if and to the extent that it can be considered as caused by contamination;

- d) There must be a link of causation between the expense/loss or damage covered by the claim and the contamination caused by the spill;
- e) A claimant is entitled to compensation only if he has suffered a quantifiable economic loss, and
- f) A claimant has to prove the amount of his loss or damage by producing appropriate documents or other evidence.

Pollution incidents may give rise to claims of different types. Examples of types of claims are given below, along with guidance on how each type may be broken down under various headings.

3.2 COSTS OF PREVENTIVE MEASURES AND CLEAN-UP OPERATIONS

- a) Delineation of the area affected describing the extent of pollution and identifying those areas which were most heavily contaminated. This should be presented in the form of a map or nautical chart, supported by photographs or video tapes.
- b) Analytical and/or other evidence linking the oil pollution with the tanker involved in the incident (e.g. chemical analysis of oil samples, relevant wind, tide and current data, observation and plotting of floating oil movements).
- c) Summary of events, including a description of the work carried out at sea, in coastal waters and on shore, together with an explanation of why the various working methods were selected.
- d) Dates on which work was carried out.
- e) Labour costs (number and categories of response personnel, regular or overtime rates of pay, hours or days worked, other costs).
- f) Travel, accommodation and living costs for response personnel.
- g) Equipment costs (types of equipment used, rate of hire or cost of purchase, quantity used, over what period).
- h) Consumable materials (description, quantity, unit cost and where used).
- i) In respect of purchased equipment and materials, any remaining value at the end of the operations.
- j) In respect of equipment not purchased for the incident in question, the age of the items.
- k) Transport costs (number and types of vehicles, vessels or aircraft used, number of hours or days operated, rate of hire or operating cost).
- l) Cost of temporary storage (if applicable) and of final disposal of recovered oil and oily material.

3.3 REPLACEMENT AND REPAIR COSTS

- a) Extent of pollution damage to property.
- b) Description of items destroyed, damaged or needing replacement, repair or cleaning (e.g. boats, fishing gear, roads, clothing), including their location.
- c) Cost of repair work, cleaning or replacement of items.
- d) Age of items to be replaced.
- e) Cost of restoration after clean-up, such as repair of roads, piers and embankments damaged by the clean-up operations.

3.4 ECONOMIC LOSS

- a) Nature of loss, including proof that the alleged loss resulted directly from the incident.
- b) Comparative figures for earnings in previous periods and during the period when economic loss was suffered.
- c) Comparison with similar areas outside the area affected by the oil spill.
- d) Method of assessment of loss.

Economic losses can include (but are not limited to): loss of income resulting from restriction of fishing activity or from closure of coastal industrial or processing installations, as well as loss of income by resort operators (hoteliers and restaurateurs). However, any saved overheads or other normal expenses not incurred as a result of the incident must be subtracted in the claims calculation.

If a claimant has received any extra income as a result of the incident, this should be indicated. For example, information should be given of any proceeds from the sale of recovered oil. Similarly, allowance should be made in the claims for income earned as a result of the incident, for instance, by fisherman through employment in the clean-up operations.

DAILY WORKSHEET (SAMPLE)

NAME OF INCIDENT

SHORELINE CLEAN-UP: DAILY WORKSHEET

DATE OF WORK:

ITEMS	EXECUTING BODY	REMARKS
Personnel	No.	
Project Manager	1	
Logistic Chief	1	
Administrator	-	
Foreman	2	
Team Leader	4	
50% Saturday overtime	-	
Worker (total 52)	45	
50% Saturday overtime	-	
In-water worker	1	
50% Saturday overtime	-	
Guard	1	
Driver	7	
50% Saturday overtime	-	
Mechanic	1	
Equipment		
High Pressure Washer	3	
Fresh Water Tank	3	
Generator 4	4	
Transfer Pump	7	
Motor pump	1	
Hoses	-	
Storage Tanks	15	
Transport		
Truck	3	
Bus	2	
Loader	1	
Excavator	-	
Pick up	4	
Van	1	
Automobile	2	
Other (Boat)	1	
Miscellaneous		
Sorbent Boom (m)	1143	Since beginning
Other		

Signed by Executing Body Date:





SPREP

Secretariat of the Pacific Regional
Environment Programme