

National Oil Spill Contingency Plan  
Commonwealth of The Bahamas  
Approved by Cabinet 2002 (Revised 2011)

## THE BAHAMAS – COUNTRY PROFILE FOR OIL CONTINGENCY

### FOCAL POINT AGENCY

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### LEAD AGENCY (Competent National Authority)

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### RESPONSE AGENCY

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### NATIONAL OPERATIONAL CONTACT (under MARPOL)

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## EXECUTIVE SUMMARY

The Ministry of Transport and Aviation has overall responsibility for oil pollution response in the waters of The Bahamas. The *National Oil Spill Contingency Advisory Committee (NOSCAC)*, chaired by the Permanent Secretary in the Ministry of Transport and Aviation, comprising representatives from government and industry advises the Minister of Transport and Aviation on response measures.

The National Oil Spill Contingency Plan 2002 (revised in 2011) empowers the Port Controller on behalf of the Minister of Transport and Aviation to intervene and take whatever measures are deemed necessary to prevent pollution. The Plan provides the framework for co-ordination of an integral response through the development of local plans in the ports and petroleum handling facilities in The Bahamas.

The Port Controller will normally lead initial response measures within port limits through coordination of district (island) resources together with those available from local industry.

The National Emergency Management Agency (NEMA) is brought in to coordinate intervention for a major spill.

Clean up of polluted shorelines on all islands is organised by the Department of Environmental Health Services (DEHS) using local labour and oil industry-owned equipment.

The Ministry of Foreign Affairs is responsible for all claims co-ordination.

### *Response:*

In ports, oil spills are managed by the Port Department; however, there is cooperation among entities within the port area. The NOSCAC manages major spills. The committee is comprised of interested Governmental departments, all major oil companies and nongovernmental agencies with required resources.

A major spill would require the assistance of regional and international oil spill agencies, through the intervention of The Bahamas Government, as advised by the NOSCAC.

***Policy:***

Policies have been established to protect sensitive resources. In terms of dispersants, the guidelines provided in the Caribbean plans are used. The use of dispersants is monitored closely.

***Equipment:***

Government-owned clean-up resources are limited and great reliance is placed on the local oil industry to supplement these resources. Port Authorities in Nassau and Freeport operate tugs, which are equipped for dispersant spraying although only limited stocks of dispersants are available from the local oil industry.

The Royal Bahamas Defence Force (RBDF) and Bahamas Air Sea Rescue Association (BASRA) will provide aircraft and vessels for surveillance or movement of manpower and materials. There is no aerial-spraying capability in The Bahamas.

Private resources are limited to those operated by the oil industry. Equipment belonging to oil companies operating on New Providence and Grand Bahama Island include pumps, skimmers, boom and dispersant spraying gear.

Great reliance is placed on resources available outside The Bahamas that can be made available in the event of a major incident. These resources would be obtained either from the US Coast Guard in Miami or the Clean Caribbean and Americas, an oil industry-owned stockpile of equipment.

***Previous Spills:***

The Bahamas has had no significant spills in its recent history.

***Training and Exercise:***

- a. The National Oil Spill Contingency Plan of Bahamas was exercised in 1996 – combine operational exercise with the Oil Industry and coordinated by CCC, Fort Lauderdale - tabletop and operational response and communication exercise.
- b. The Bahamas attended the REMPEITC-Carib OPRC 90 Training & Exercise Workshop 96, St. Eustatius – April 1996.
- c. The Bahamas participated in the IMO Model Course – Supervisors/On-Scene Commanders for Oil Spills and Train the Trainer Course, Jamaica – June 1996 (Coordinated by REMPEITC-Carib).
- d. The Bahamas participated, on invitation of the Oil Industry, to the Clean Caribbean Co-operative (CCC) Training Courses.

- e. The National Oil Spill Contingency Plan of The Bahamas was reviewed and updated in February 1998.
- f. The Bahamas attended the St. Lucia Carib 98 OPRC Training and Exercise – March 1998 and the St. Kitts and Nevis and MOBEX – April 1998.
- g. The Bahamas exercised the updated NCP in May 1998.
- h. The Bahamas hosted an OPRC Level 1 Course – November 1998
- i. The Bahamas participated in an OPRC Level 2 Course in Ft. Lauderdale, FL – February 1999
- j. The Bahamas participated in an ESI mapping workshop in Trinidad – November 1999
- k. The Bahamas participated in the Regional Workshop on ESI, Sensitivity Mapping and Geographical Information System Workshop for Oil Spill Response in Curacao – March 2004
- l. The Bahamas hosted the Regional OPRC Seminar on Marine Pollution Readiness and Response related to Offshore Units and Regional Cooperation 7<sup>th</sup> – 9<sup>th</sup> December 2011
- m. The Bahamas participated in the Regional Workshop on Marine Pollution Prevention, Readiness and Response related to Offshore Units and Regional Cooperation- April 2012.

### *Conventions and Agreements*

The Bahamas is party to the following conventions. These conventions have been ratified and implemented in national legislation.

Oil Spill Response			Prevention & Safety				Compensation					
OPRC 90	OPRC HNS	Cartagena	MARPOL ANNEXES				CLC			CLC B	Fund	
			73/78	III	IV	V	'69	'76	'92	'01	'71	'76
✓			✓	✓		✓	✓	✓	✓		✓	

The Bahamas is not a party to any sub-regional or bilateral agreements.

## ACRONYMS

MOBEX	International Mobilisation, Preparedness and Response Exercise
OPRC	International Convention on Oil Pollution Preparedness, Response and Co-operation
OPRC-HNS	Protocol on Preparedness, Response and Co-operation to pollution Incidents by Hazardous and Noxious Substances, 2000
CLC	International Convention on Civil Liability for Oil Pollution Damage
MARPOL	International Convention for the Prevention of Pollution from Ships
Fund	International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage
NOSCAC	National Oil Spill Contingency Advisory Committee
REMPEITC-Carib	Regional Marine Pollution Emergency Information and Training Centre for the Wider Caribbean
RAC	Regional Activity Centre
CCC	Clean Caribbean Co-operative (now CCA)
CCA	Clean Caribbean & Americas
OSRL	Oil Spill Response Limited
ITOPF	International Tanker Owners Pollution Federation Ltd
AUTEC	Atlantic Undersea Test and Evaluation Centre
CARIBPOLREP	Caribbean Pollution Report

## 1. DEFINITIONS

1.1 **Focal Point Agency:** The Bahamas' Focal Point Agency is the Ministry with responsibilities for the Port Department and the Department of Environmental Health Services. The Permanent Secretary, who is the Response Manager, may appoint a responsible subordinate within the Ministry as the Focal Point.

1.2 **Lead Agency:** The agency that initiates and receives oil spill information directly from Lead Agencies of other member Island States or Territories. The Lead Agency is responsible for notification of member Island States and Territories in the event a major spill occurs. The State or Territory that is nearest to the spill, or receives first notification of a spill incident, will assume responsibility of notification to other member States or Territories.

1.2.1 Unless otherwise directed the national authority entitled to act on behalf of the state to request assistance, or to decide to end the assistance requested, will be the Lead Agency.

1.2.2 Notification routing will be direct between Island State's and Territory's Lead Agencies. Internal dissemination of information will follow the protocol routing within the government and will be the responsibility of each Lead Agency for proper routing utilizing the **CARIBPOLREP** format.

1.2.3 The Lead Agency for The Bahamas is the National Emergency Management Agency (NEMA).

1.3 **Response Agency:** The agency will be the organisation that normally responds to an oil spill during time of emergency and is listed as an alternate contact point to the Lead Agency. In the event communications cannot be established directly between Lead Agencies in a major disaster, routing should be directed to the Response Agency, requesting that the Lead Agency establish communication.

1.3.1 The Lead Agency has discretion to bequeath direct communications to a Response Agency. Subsequent messages may be routed directly to the Response Agency; however, this must be authorised on a case-by-case basis.

1.3.2 The Response Agency for The Bahamas is The Port Department.

1.4 **On-Scene Commander (OSC):** A qualified person who acts as an On-Scene Commander (or On-Scene Coordinator) at each oil spill incident. The OSC will follow the duties and lines of authority as defined in this Plan.

1.4.1 In case an oil spill occurs near the boundary of two Island States or Territories and spreads into the territorial waters of a neighbouring Island State or Territory, each State or Territory will have an OSC responsible for cleanup activities in its own area of responsibility.

1.4.2 Because of logistics, geographic location or other circumstances, it may be in the best interest of all parties for one State or Territory to relinquish its OSC authority to the other state or territory. The decision to centralise the responsibilities of one or more OSCs will be made after receiving the concurrence of the lead Agencies of all involved States or Territory's.

1.4.3 The agreement to centralise the OSC authority will be only for the duration of the immediate emergency and can be rescinded by any Lead Agency.

1.4.4 The On-Scene Commander for The Bahamas is the Port Controller (At Sea) and the Public Analyst in the Department of Environmental Health Services (On Land).

1.5 **The Oil Spill Contingency Advisory Committee (OSCAC):** The body convened by and responsible to the Ministry when there is a threat of pollution to The Bahamas. This group will consist of all interest parties, and it is important that it provides a balance of government, industry, and environmental representatives and is chaired by the Permanent Secretary of the Ministry of Transport and Aviation.

1.5.1 The role of the OSCAC will include planning, preparedness and the monitoring of response operation, and ensuring that all other agencies act in support, as appropriate. The OSCAC forms a small action team to work with the Response Manager(s) to mount an appropriate response to an oil spill incident. Details of the membership of OSCAC are at **Annex B** and with individual telephone contacts.

1.5.2 The **Family Island Administration**, with the Chief Councillor, shall establish their own island committees, develop their own contingency arrangements, and report directly to the Lead Agency, keeping the Department of Local Government informed.

1.6 The **National Emergency Operation Centre (NEOC)** located on Gladstone Road, North, off Fire Trail Road is identified and Standard Operation Procedures (SOPs) for the NEOC will come into effect in the event of a TIER II or III incident.



## 2. INTRODUCTION

2.1 It is always difficult to define the threat or risk of an oil pollution incident. Clearly the sites of oil related activities in the Islands must be high on the list, i.e. Freeport and South Riding Point, in Grand Bahama, and Clifton Pier, in New Providence, as well as the many smaller distribution facilities in the inhabited Family Islands.

2.2 Having regard for oil prospecting interests in The Bahamas, it is especially important that the legislative, policy and procedural framework is set in order to facilitate such ventures – particularly as it relates to balancing preservation of The Bahamas’ pristine environment with progressive development.

2.3 But, even today, main facilities in Grand Bahama and New Providence import and tranship crude oils and products increasing the risk of pollution. In the main ports of Nassau and Freeport increased cruise liner and container ship activities pose a daily risk of oil spill by accident.

2.4 Away from the islands, there is dense marine traffic, including many fuel-laden tankers and cruise liners, plying from the North Atlantic and East US Coast and to and from the Gulf of Mexico. Tanker lightering to the S.W. of Grand Bahama in the Florida Channel adds to the risk of accidents, spillage from ships on the high seas suffering explosion, collision stranding or other marine accidents. With regard to the many cruise liners and container ships operating in the area it should be noted that relatively small spills of the heavy bunker oil that they burn could cause considerable clean up problems, as well as contamination of environmental, fisheries, and amenity resources over a wide area.

2.5 All this constitutes a substantial threat of oil pollution by accident on beaches and in inshore waters with serious effect on the marine environment, sea birds and fisheries as well as dire results to the tourism industry on which so much of the well-being of the community depends.

2.6 The Bahamas Government National Oil Spill Contingency Plan (short title Oil Spill Contingency Plan) has been prepared to relate at all levels to the Caribbean Islands Oil Pollution Preparedness Response and Co-operation (OPRC) Plan hereafter referred to as the Caribbean Plan.

2.7 The Caribbean Plan is designed to enhance individual territory’s ability to respond to a spill which is beyond its own capability and thereby establish the philosophy of friendly neighbourliness and mutual assistance.

2.8 To avoid unnecessary duplication in the Oil Spill Contingency Plan reference to the appropriate sections of The Caribbean Plan is made wherever appropriate. However, where important information would be immediately required in an emergency, such information is deliberately repeated in the Oil Spill Contingency Plan.

2.9 The Plan does not in any way relieve authorities and agencies of their day-to-day operation and environmental responsibilities within the area of their jurisdiction.

2.10 This Plan does not specifically address spills of hazardous substances other than oil, whilst many of the arrangements for responding to oil spills will be equally relevant to such spills there are significant differences in respect of potential hazards to human health which are not addressed.

2.11 All other oil spill contingency plans of Bahamian activities i.e. Port Authorities, terminal operators and transshipment facilities should relate to this Plan.

2.12 This Plan is a component of the National Disaster Plan as required by the Disaster Preparedness and Response Act, 2006, which is supervised by the National Emergency Management Agency (NEMA).

### 3. OIL SPILL RESPONSE OBLIGATIONS FOR THE BAHAMAS

3.1 The International Convention on Oil Pollution Preparation Preparedness, Response and Co-operation, 1990 (OPRC) came into force in 1995 and establishes the following international requirements for national authorities. The Bahamas acceded to its provisions on 4<sup>th</sup> October 2001 and it came into force on 4<sup>th</sup> January 2002. Consequently, The Bahamas has

3.1.1 established a national contingency plan which includes the organisational relationships of the various bodies involved, whether public or private

3.1.2 established in co-operation with oil and shipping industries, port authorities and other relevant entities:-

3.1.2.1 a minimum level of oil-spill pre-positioned combating equipment commensurate with the risks involved.

3.1.2.2 a programme of exercises for oil pollution response organisations and training of relevant personnel.

3.1.2.3 detailed plan and communication capabilities for responding to oil pollution incidents.

3.1.3 drawn on the experience of industry arrangements in respect of information, education, training and technical services

3.1.4 required the masters of its ships and the pilot of its civil aircraft to report without delay the causing, or sighting of, an oil spill to the nearest Control State

3.2 The Bahamas communicates with the Regional Marine Pollution Emergency Information and Training Centre for the Wider Caribbean Region (REMPEITC-Carib), the agency tasked with ensuring an effective state of preparedness in respect of oil spill response in the Caribbean region and of encouraging and co-ordinating assistance in mutual aid between the countries within the region. It is operated by a two officer partnership – an IMO Regional Consultant and an officer of the US Coast Guard.

## 4. NATIONAL POLICY

4.1 In the event of major spillage of oil resulting from marine accident, the following assumptions are made.

4.1.1 It is unlikely that any substantial at sea operation can be mounted either by The Bahamas or by supporting Caribbean States without rapid deployment of the Clean Caribbean & America's airborne dispersant spraying capabilities.

4.1.2 Protracted beach cleaning operations will quickly absorb the available resources. Reinforcements of equipment and personnel will almost certainly be required.

4.1.3 The distance between New Providence and Grand Bahama Islands and the very large numbers of islands and small cays within the archipelago pose an exceptional challenge for personnel and equipment deployment. If oil impacts some uninhabited areas, it may well be best to leave the oil for nature to disperse.

4.1.4 At best, The Bahamas will be able to dispose of only small amounts of oily residue and waste within the islands.

4.2 In a major spill, the National Policy must assume only limited response capability from local resources and rely on deploying technical expertise and equipment from outside the region. Recognising this fact, it is imperative to ensure the effective integration, control and deployment of such external aid.

4.3 The smaller amounts of oil arising from minor incidents should be handled by local resources. Oil resulting from illegal discharges, which frequently reach the shoreline in the form of tar balls pose a lesser threat – but nevertheless a considerable nuisance – and should be handled locally.

4.4 Due to the close proximity of the Turks and Caicos Islands and the fact that a threat to those islands might pose a threat to The Bahamas, a mutual relationship should be developed between the authorities of the two countries with each holding the Contingency Plan of the other. Similar arrangements should be considered for Cuba, Jamaica, Hispaniola (Haiti and the Dominican Republic) and Florida, USA.

4.5 Central government administration of any incident within The Bahamas will be exercised from Nassau. When incidents impact on other islands some responsibilities will be delegated to, or shared as appropriate with, Family Island Administrators and Chief Counsellors.

4.6 The US Navy's Atlantic Undersea Test and Evaluation Centre (AUTEC) facility, in Andros, and its nearby waters, is a self contained US Navy facility which would itself be responsible for dealing with an oil spill within its area of jurisdiction.

## **5. SCOPE AND CONTENT OF PLAN**

- 5.1 To ensure a timely and effective response to pollution or threat of pollution from oil or other toxic substances, this plan
  - 5.1.1 establishes appropriate detection, reporting alerting and assessment systems.
  - 5.1.2 establishes a viable operational organisation with a defined chain of command and related responsibilities.
  - 5.1.3 establishes an incident reporting procedure.
  - 5.1.4 identifies high risk areas.
  - 5.1.5 identifies priority coastal areas for protection and clean up.
  - 5.1.6 identifies what oil spill equipment is available in The Bahamas.
  - 5.1.7 identifies external sources of expert advice and equipment and establishes procedures for calling them in.
  - 5.1.8 identifies relevant Compensation Funds.
  - 5.1.9 defines Bahamas Powers of Intervention.
  - 5.1.10 explains the problems to be faced with an oil spill and appropriate response techniques.
  - 5.1.11 establishes a dispersant spraying policy.

## 6. CATEGORIES OF SPILLS AND RESPONSE

6.1 **Categories of Spills:** Oil spills are divided into three categories or “Tiers”.

6.1.1 **Tier I** spills are “minor” incidents involving a spill of 0 – 50 barrels (less than 2,000 gallons) that are highly localised in nature (e.g. a fuel transfer facility, or at a terminal or a refinery). They are generally caused by “bad housekeeping” i.e. broken hose or overfilling tanks and should be containable by those response resources which are required to be maintained by the operator at immediate notice on site to respond to such an incident.

6.1.2 **Tier II** spills are “moderate” incidents involving a spill of greater than 50 and less than 150 barrels (less than 6,000 gallons). These demand the full activation of the Emergency Response Organisation in the area and maybe external contractors; and generate interest from the Governmental Agencies, media (local, national, and/or international) and residents of the area. A spill that they cannot confine within the limits of the facility or any marine spill would be Tier II. These spills stop or can be controlled. Adjacent property may be affected.

6.1.3 **Tier III** spills overwhelm all local/national resources and demands external reinforcement from nearby states i.e. “friendly neighbours” and a specialised overseas response organisation, such as the Clean Caribbean & Americas (CCA) or Oil Spill Response Ltd. (OSRL). Such an incident frequently becomes a major international affair involving almost every aspect of government.

6.2 **Response:** This national plan is written to respond to oil spills of any size. The first and almost immediate response will be facility personnel of the oil companies, using the on-site resources. If they need additional aid, spill response contractors can supply personnel and equipment such as the CCA and the OSRL.

**Table 61: Tiered Response to Oil Spills**

TIER	SPILL		RESPONSE TIME	DESCRIPTION & RESPONSE REQUIRED
	BARRELS (BBLs)	GALLONS (GALS)		
I	0 – 50	<2,000	<4 hours	A small spill from oil-related activity requiring local (usually onboard a ship or at a storage site)
II	>50 to <150	>2,000 to <6,000	<24 hours	A larger spill which should be contained by concentrating all government and industry resources <i>within</i> The Bahamas (government and local contractors)
III	>150	>6,000	<48 hours	A major spill which overwhelms all local

				resources and calls for international assistance (by contract or cooperation)
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6.3 The manpower and equipment resources that they would require to respond to oil spill incidents have been organised to reflect three tier levels of incidents that may occur. For the purposes of this plan, we define these levels of incidents below and in Table 3-1.

6.4 Tier II or Tier III oil spills activate the National Disaster Plan (NDP) by the Bahamas National Emergency Management Agency (NEMA). An oil spill from a passing oil tank, or as a result of grounding, has the potential of seriously impacting the coastline and the beaches. Facilities should have adequate manpower available or on call to respond to a Tier I/II oil spill, whatever time of day.

6.5 If, in the judgement of the Local Government Representative, specialised cleanup capabilities are needed, or if they require additional clean-up resources, he should contact the Ministry responsible for Port who will contact resources contractors/cooperatives listed in **Annexes F & G**.



## 7. THE ROLE OF GOVERNMENT

7.1 The response to Tier I – and probably Tier II – spills can generally be left to the associated oil companies if the spill originated from their facility, or from one of their own tankers, delivering their oil. Indeed, if such an incident should get out of hand, the following companies i.e. Esso, Texaco, South Riding Point, Shell through Pecten Trading Company (Shell) and BORCO (through its parent company VOPAK) are themselves members of the CCA and could call on their resources for assistance. In such incidents, however, the government's prime role requires careful monitoring of all operations to ensure that no actions are taken – or omitted – which would unnecessarily threaten the environment.

7.2 In the extreme scenario where the ownership of a vessel and/or cargo are difficult to establish – or not in the membership of the CCA – Government must take the lead, then seek the advice of the International Tanker Owners Pollution Federation Ltd (ITOPF) to assist in establishing the ownership of the tanker and its Protection and Indemnity (P&I) insurer, and, as appropriate, to apply to the CCA for assistance. Whatever external expertise or assistance is provided, it remains the responsibility of Government to have overall charge of the operation.

7.3 For this action to be speedy, positive and effective, it is important that all cooperating agencies of government are fully aware of their roles and responsibilities in advance of an incident. These roles and responsibilities are defined in **Section 8**.

7.4 For success in oil-spill clean-up it is essential that there be a very strong relationship of understanding and trust between government and the oil industry. At all levels of response - particularly at Tier II and Tier III spills - this working interface will be particularly important and will need to be carefully defined. This is especially so in cases where the local industry may act in support of Government in an incident involving a vessel and its cargo which are of no direct interest to that company i.e. the passing tanker scenario.

## 8. ROLES OF OIL SPILL ADVISORY COMMITTEE MEMBERS

8.1 The following Government Departments, and related agencies, have direct responsibility in Government's swift and successful response to an oil spill. Each has clearly defined plans. Once an oil spill has been detected the Oil Spill Committee activates standard operating procedures commence to monitor, track and provide cleanup response where necessary.

- 8.1.1 **The Port Department**: To lead, with the Permanent Secretary as Response Manager, all major responses related to marine oil spills in respect of oil on the surface of the sea, and to provide the On-Scene Commander (at sea). In incidents where response has been provided by local oil companies or overseas agencies, the prime responsibility of the Ministry is to monitor operations. It is the Minister responsibility for the Port Department who is empowered to, as appropriate, and in consultation with the Attorney General, intervene as authorised in Part III of The Merchant Shipping (Oil Pollution) Act of 1976 Chapter 253 and as defined in section 15.
- 8.1.2 **The Department of Environmental Health Services**: Jointly with the Port Department, to lead, with the Permanent Secretary as Response Manager, in all environmental aspects of dealing with an oil spill. In the event that oil threatens to come ashore, to provide the On-Scene Commander (Land) and to be responsible for identifying the means of the final disposal of recovered oil, and oily debris.
- 8.1.3 **National Emergency Management Agency (NEMA)**: In accordance with the Disaster Preparedness and Response Act, 2006, Part II, section 3(1), to be responsible for disaster relief management and serve as a coordinating agency for all natural, man-made, and technological hazards. The Agency's main focus is to reduce the loss of life and the destruction of property within the Commonwealth of The Bahamas, by ensuring that there are adequate mitigation measures, plans, community preparedness, public information and recovery coordination mechanisms to minimise the impact of the various hazards. To provide leadership of the NEOC.
- 8.1.4 **Office of the Attorney General**: To advise on all aspects of the Merchant Shipping (Oil Pollution) Act, 1976, Chapter 253, particular on the powers of intervention, in respect of damaged vessels referred to in section 15, but also the Regulations regarding financial recompense for reasonable clean-up costs as defined in The Civil Liability Convention and the for The International Pollution Compensation Funds.

- 8.1.5 **Bahamas Maritime Authority (BMA):** To strengthen the management of the Bahamas International Ship Register, recognising the Government's responsibility for safety at sea and protection of the marine environment. To enforce safety standards on Bahamas registered vessels, represent The Bahamas at the IMO, and investigate casualties involving Bahamian vessels.
- 8.1.6 **Ministry of Finance:** To ensure that clearly defined agreements are in place, to ensure that there is no delay in the stages of an incident, arising from lack of financial provision to deploy necessary resources from government and/or contract the private sector, (i.e. private aircraft, boats or services of specialised contractors). To provide up-front assurances of payment. To temporarily waive duty on the importation of required response equipment.
- 8.1.7 **Ministry with responsibility for Public Works:** To identify (in advance) what personnel and equipment, in the government sector, have relevance in beach clean-up operations; and to monitor the private contractor sector for similar resource opportunity.
- 8.1.8 **Port Authorities:** To prepare to receive external reinforcement, of clean-up equipment, in the event of their not being sent by air, and to ensure their speedy, and unhindered movement through the port on the scene of the incident.
- 8.1.9 **Ministry of Health:** To implement its activities designated under the National Disaster Contingency Plan (Emergency Support Function (ESF) Number 8 – Health and Medical Services). To implement its response functions through the following supporting agencies: The Ministry of Agriculture and Fisheries; The Department of Public Health; The Public Hospitals Authority; Mental Health Services and The Bahamas Red Cross.
- 8.1.10 **Department of Civil Aviation:** To equip all airport managers with knowledge of nation airfield capacity, ramp space, loading and unloading facilities. To receive external clean-up equipment and personnel and permit unhindered exit from the airport for loads carried typically in C130 (Hercules) DC8, B737, and B707 aircraft. Where necessary, to identify and prepare similar reception facilities in Family Islands. To facilitate entry in respect of flights to and from airfields closed after sunset and of operations by foreign aircraft companies in The Bahamas. Details of selected airfields are at [Annex J](#).
- 8.1.11 **Royal Bahamas Defence Force:** With the Defence Force Commander having direct access to the Response Manager, to maximise the various

capabilities of the force and to ensure the provision of maritime expertise. To assist with air and sea reconnoitring efforts. To provide personnel and equipment transfers. To control off-shore sea areas. To enhance communication facilities. To take charge of large and diverse groups of beach cleaning personnel.

- 8.1.12 **Department of Immigration:** To prepare for and to allow unhindered entry of response personnel (where necessary), over-riding any normal requirements for passport or visas.
- 8.1.13 **Department of Local Government:** To coordinate communications among the Family Islands and between Islands and the NOSCAC. To be kept informed, at least by copy message, of all information arising from any oil spill affecting any of the Family Islands, or their interests.
- 8.1.14 **Bahamas Customs Department:** To provide waivers, where required, on important licenses, and taxes. Having regard for the fact that, in due course, they will return to their country of origin, to make allowances for special, temporary import arrangements that will facilitate the movement of all equipment from the Port/Airport to the scene of operation.
- 8.1.15 **Royal Bahamas Police Force:** To handle the arrival of large numbers of personnel and ensure safety and security and persons through maintenance of law and order. To control crowds at/near the scene of the incident. To provide additional traffic management and control where necessary to permit vehicles carrying oily waste. To take evidence from marine personnel and for the Police Forensic Department (which has a limited capacity to analyse, and match, oil samples).
- 8.1.16 **Department of Marine Resources (DMR):** To advise on the likely effects of spilled oil on fish movement, fishing activities, on marine life in the inter-tidal zone, and on areas of especial marine life sensitivity. To prepare sensitivity maps. To ensure that clean-up priorities take full account of fishing sensitivities.
- 8.1.17 **Ministry of Tourism:** To prepare national statements on the true effect of the oil spill as it effects tourists, particularly those who are shortly to arrive. To cooperate with the DMR to ensure that those beaches and recreational waters, which are most attractive to the tourists, are recorded on the sensitivity maps. To assess the number of the empty hotels beds to accommodate clean-up related personnel arriving from outside The Bahamas. To work closely with the Bahamas Information Services.

- 8.1.18 **Bahamas Information Services – Public Relations:** To ensure timely dissemination of clear and positive press releases and statements. To guide the public through the incident without invoking panic. To bring matters of public interest to that domain with controlled access to briefings and incident sites.
- 8.1.19 **Bahamas Environmental Science & Technology (BEST) Commission:** To ensure that all environmental concerns, and dangers, related to potential environment impacts arising effects from an oil spill, are carefully assessed against the scenario of the event, in order that balanced, useful and appropriate advice is given to those responding to the oil spill. To interact with partners (DMR, DEHS, Department of Meteorology, the Port Department, BNT, The Nature Conservancy, Bahamas Reef Environment Educational Fund (BREEF), Reef Environmental Education Foundation (REEF), The Bahamas Marine Mammal Research Organisation (BMMRO) and The Bahamas Water and Sewage Corporation) to establish consensus. To interact with agencies such as UNEP, UNESCO, other regional agencies and governments through the Ministry of Foreign Affairs in the event of an international incident.
- 8.1.20 **Department of Meteorology:** To advise on all aspects of oil spill clean-up *vis-à-vis* effect of weather on a damaged ship, movement of oil slick, and deployment of clean-up resources with weather restrictions. To make weather forecasting readily available at all times. To serve in the NEOC.
- 8.1.21 **The Bahamas National Trust:** To provide advice in respect of the preservation and well being of flamingos, turtle, wetlands, and coral reefs and other precious species. To contribute to sensitivity mapping.

## 9. SPILL REPORTING, ALERTS AND COMMUNICATIONS

9.1 Upon notification of an oil spill, the Port Department of Nassau, the International Airport at Nassau, or The Bahamas Defence Force, (all of whom maintain a 24-hour capability and are the communication points of contact), shall immediately notify the Focal Agency (Permanent Secretary, Ministry with responsibility for the Port Department) by telephone.

9.2 The Response Manager, in concert with the Director of NEMA and the On-Scene Commander(s) categorises the spill.

9.3 Notification is then formalised with an initial oil spill notification report (**Annex H**) and the detailed follow-up report, CARIBPOLREP (**Annex I**).

9.4 If the initial assessment of an incident, by the Port Department, indicates that it might be serious, the Response Managers, in further consultation with The Bahamas Defence Force, and the Port Department, will make a rapid appraisal of the threat pose by the marine emergency, and as appropriate, announce via a telephone alerting system, that the NOEC is to be activated, and that the personal designated to staff the centre should report for duty.

9.5 The Lead Agency will convene the NOSCAC. The Cabinet office will also be alerted and advised as to whether any external agencies need to be informed.

9.6 The Regional Marine Pollution Emergency, Information and Training Centre (REMPEITC-CARIB) at Curacao, Netherlands Antilles will be informed as necessary in accordance with the Caribbean Plan.

9.7 Alerts are issued to the public. The **National Early Warning System (EWS)** includes the colour code system as follows:

Red:	An oil slick is likely to impact a coastline within 3 – 6 hours.
Orange:	An oil slick is likely to impact a coastline within 7 – 12 hours.
Yellow :	An oil slick is likely to impact a coastline within 13 – 24 hours.
Green:	An oil slick is likely to impact a coastline within 25 – 36 hours.

9.8 **Early Warning Systems Dissemination Mechanism:** The following traditional and modern methods for notifying a community will be utilised:

- 9.8.1 **Royal Bahamas Police Force (RBPF):** Through its Control Room, will contact all stations and patrol units throughout The Bahamas simultaneously. This system will notify all communities of an impending event. All mobile units will sound the sirens on their vehicles to notify the affected communities.
- 9.8.2 **Royal Bahamas Defence Force (RBDF):** Through its Operations Room, the RBDF will notify all of its Bases and vessels at sea of an impending disaster. All Bases will further assist in notifying their local communities.
- 9.8.3 **Bahamas Telecommunication Company (BTC):** The BTC stations throughout The Bahamas will assist with the dissemination of EWS messages through the BTC JFK office to simultaneously to all of its stations.
- 9.8.4 **Cable Bahamas:** Cable Bahamas will stream an emergency broadcast message at the bottom of all television screens.

- 9.8.5 **Page Systems:** Members of the National Disaster Committee will be equipped with pagers which will be used to notify all members of an impending disaster or an emergency event.
- 9.8.6 **Cell Phone Alerts:** NEMA in conjunction with BTC will establish a cell phone emergency alerting message initially for the Disaster Management Committee and other key personnel. NEMA in conjunction with BTC and the RBPF will seek to procure emergency sirens, or fog horns for installation in all communities on BTC towers with controls from the Police desk in the Islands.
- 9.8.7 **Flags:** All Administrators' Office will be provided with a set of the colour code flags. Each flag will be 24 inches square and will be hoisted at all Police, RBDF flag staffs.
- 9.8.8 **Radio and Television Broadcast:** Early warnings and up to the minute messages will be broadcasted over radio and televisions. All public and private stations are to broadcast messages.
- 9.8.9 **Television Display of Colour Code Warnings:** All private and public television stations will be required to post the colour code and the hazard notification as a Square in the top right corner of the screen.

## 10. SURVEILLANCE

10.1 If a spill occurs, it must be tracked by all available means (aircrafts of the Royal Bahamas Police and Defence Forces) and ships/boats as appropriate, in order that its movement may be predicted. Resources must also be organised and deployed, accordingly. As appropriate, additional local private sector aircraft/boats (including members of the Bahamas Air Sea Rescue Association (BASRA)) may be employed to provide visual tracking.

- 10.1.1 To avoid conflicting, and confusing, reports, it is important that these operations are well co-ordinated, employ trained observers, and use a single reporting system.

10.2 If the assessment shows that another State is likely to be threatened, The Bahamas Government will inform that State.

10.3 For routine surveillance, all pilots of aircraft, and vessels, are required to report any sighting of oil in the sea, for immediate onward transmission to the Lead Agency.

10.4 A consistent reporting system is essential.

## 11. CLEAN-UP RESPONSE DECISIONS AND OPERATIONS

11.1 The Response Manager will convene the NOSCAC to implement the National Plan and consider:

- 11.1.1 the desirability of engaging external expertise to advise on oil spill cleanup, with which will be related the measures necessary to deploy external resources into and within the island;
- 11.1.2 the possible prevention, or reduction, of outflow of oil at source;
- 11.1.3 whether the marine or coastal resources are threatened, whether it is practicable to mount any at sea response, with, or without, external aid, and/or whether sensitive shoreline areas need to be protected by the deployment of booms;
- 11.1.4 whether beaches have been, or are likely to be, affected, determine clean up priorities, and direct resources;
- 11.1.5 mobilisation of personnel, equipment, and materials from internal and, if necessary, external resources.

11.2 To assist decision-making, [Annex E](#) shows environmentally sensitive areas and the priority areas for clean-up in The Bahamas. [Annex D](#) lists locally available resources held by local oil companies, operating in the islands. [Annex F](#) lists external sources of specialist equipment and manpower. [Annex G](#) identifies sources from which expert advice might be obtained on response options and [Annex K](#) details some oil spill counter measures.

### 11.3 USE OF DISPERSANTS

- 11.3.1 The Bahamas adopts the criteria for the use of chemical dispersants in accordance with the Caribbean Plan (copied at [Annex L](#)).
- 11.3.2 In general terms, the NOSCAC will approve the use of dispersants in Bahamian waters in accordance with the criteria agreed for the Region, unless there are overriding considerations at the time.
- 11.3.3 Chemical will be applied speedily in order to maximise the limited window of opportunity for the dispersant to be effective.

### 11.4 ILLEGAL DISCHARGES

- 11.4.1 If an illegal discharge takes place within a port area of The Bahamas, the Port Authority, in consultation with the Attorney General, will consider whether



prosecution action is appropriate, and possible, under Part II of the Merchant Shipping (Oil Pollution) Act, Chapter 253.

- 11.4.2 If a foreign ship illegally discharges oil while passing through the territorial waters of The Bahamas, the Ministry responsible for Port, in consultation with the Attorney General, will report the incident under Part II of the Merchant Shipping (Oil Pollution) Act, Chapter 253, to the Flag State of the vessel concerned, with any photographs, or evidence available, and request that the matter be investigated further.

## **11.5 INTERVENTION**

- 11.5.1 The NOSCAC will monitor all actions by a damaged vessel, carefully assess any salvage agreement between the Master of the Vessel and any Salvage Company, and be prepared at all times, subject to the concurrence of the Attorney General, to advise the Minister responsible for Port, to intervene under the Part III of The Merchant Shipping, (Oil Pollution) Act, Chapter 253. Government can use power to give such direction when

11.5.1.1 an accident has occurred to, or in, a ship;

11.5.1.2 oil from the ship may cause pollution on a large scale to The Bahamas or in the waters thereof;

11.5.1.3 action is urgently required to prevent, or to reduce, oil pollution, or the risk of oil pollution.

- 11.5.2 Such directions will relate to either the ship or its cargo and should be in writing.

- 11.5.3 Further details on Intervention are in relevant paragraphs of the Caribbean Plan.

## **11.6 DISPOSAL OF RECOVERED OIL**

- 11.6.1 Having regard for the fact that THE ENTIRE BAHAMAS is considered “sensitive” ecosystem, the final disposal of recovered liquid oil, oily debris, or of other toxic substances, may well present the most difficult problem arising from an oil spill.

- 11.6.2 Recovery and transfer to portable containers including plastic bags, barrels and tanks, for later deposit in designated permanent storage tanks, may be possible, but transfer of recovered oil to barges or large portable floating storage units (DRACONES) for subsequent transfer to a larger vessel, or to a designated shore facility, is probably the only solution to the disposal of large quantities of oil.

- 11.6.3 On scene burning of oiled sand, and other debris, is a limited method of disposal. Transport of oil inland, and on-land disposal of collected oil, is not to be undertaken without specific approval of the Department of Environment Health Services.
- 11.6.4 Tar balls present a lesser problem, and are best recovered by hand, placed in plastic bags, and transported to an agreed disposal site.

## **12. RESTORATION OF AFFECTED AREAS**

12.1 Once clean-up operations are completed, it may be necessary to restore affected areas. The degree of restoration will be determined by the NOSCAC in consultation with related agencies.

12.2 Consideration should be given, as necessary to replacing contaminated beach sand; replanting mangrove stands, replanting of marsh and sea grasses; and restocking aqua-cultural projects.

12.3 In areas identified as having high environmental sensitivity, consideration will be given to establishing a monitoring programme to determine the long-term effects on flora and fauna.

12.4 It is important to note that beach replacement, replanting, restocking and long-term monitoring are actions that do not normally qualify for financial compensation, under the Civil Liability and Fund Conventions.

12.5 In areas where no clean up has been possible careful monitoring of the natural process of oil dispersion will be required.

## **13. COMPENSATION**

13.1 The 1992 Protocols to the Civil Liability (CLC) and the Fund Conventions (FC) have considerably enhanced the cover States' incident-related compensation/cost recovery. The liability is strict and the flag state of the tanker and the nationality of its owner are irrelevant.

13.2 The 1992 CLC applies to

- 13.2.1 pollution damage resulting from spills of persistent oils in the territory, the territorial sea, or in the exclusive economic zone, (EEZ), of the state being party to the Convention;

- 13.2.2 spills of cargo or bunkers from sea-going vessels constructed to carry oil cargo, as well as from laden or unladen tankers;
- 13.2.3 circumstances where preventative measures are taken in which no oil spills but where a grave and imminent threat of such spillage was perceived;
- 13.2.4 persistent oil spilled, and proven, by chemical, or other supporting evidence to be from a tanker, - even through the actual tanker cannot be identified.
- 13.3 Issues due to gasoline, light diesel, kerosene, etc are excluded.
- 13.4 In cases where the costs of clean-up exceed the limited liability of the owner of the ship under the CLC, additional claims may be made on the 1992 Fund Convention.
- 13.5 It has to be stressed that these Protocols do not refer to non-tankers (cruise liners and containers ships) or to the recovery of clean up costs where the spill does not originate from the cargo or bunkers of a tanker may, especially in the case of illegal discharges where the offender is difficult to identify.
- 13.6 Theoretically, the responsibility/liability lies with the ship owner, but in practice, claims will have to be settled with the insurer. Appropriate contact with the Protection and Indemnity Clubs is essential in such cases.
- 13.7 The Government of The Bahamas is a member of the International Oil Pollution Compensation Fund (IOPCF) Convention. Under this convention, countries whose waters or coastlines are polluted by the cargo oil of a tanker which has had an accident are entitled to the repayment of reasonable costs involved in the subsequent clean-up. This is an absolute liability regardless of the ownership of the tanker or the cause of the accident.
- 13.8 Speedy and satisfactory payment of these claims relies on comprehensive recordkeeping of actions taken and expenses incurred during the cleanup operation.
- 13.9 Costs of cleanup of other spills – and of illegal discharges of oil – are not covered and claims for compensation of pollution from these sources must be pursued through court in common law – regrettably with expensive and frequently unsuccessful results.
- 13.10 Further details on cost recovery schemes are in Chapter 8 of the Caribbean Plan.

## **14. RECORD KEEPING AND PREPARATION OF CLAIMS**

14.1 Financial claims should be processed with minimum delay. Therefore, it is essential that accurate records are maintained for each clean-up location and must include details of all actions taken – the reason for such action; personnel and equipment deployed; and consumable material used.

14.2 The NOSCAC and the On-Scene Commanders will be responsible for ensuring that these very important records are maintained.

## **15. TRAINING AND EXERCISES**

15.1 The Response Coordinator will arrange periodic exercises to ensure that reporting, alerting, and communication, systems function effectively; and that those personnel assigned specific tasks, under this Plan, are familiar with them.

15.2 From time to time, equipment, personnel and materials will be mobilised and deployed to ensure availability and performance. Additionally, training programmes for shoreline clean-up personnel and the Control and Command Teams should be developed.

15.3 Periodic exercises, both on paper and in the field will be staged to determine the effectiveness of this Plan.

## **16. AFTER-ACTION REPORTS**

16.1 Following resolution of the oil spill and closure of the NEOC, the support agencies involved will be responsible for submission of an After-Action Report to the On-Scene Commanders not later than (3) days following closing of the Command Post.

16.2 The On-Scene Commanders and the Response Coordinator shall be jointly responsible for the submission of a general After-Action Report incorporating reports from all responsible agencies within seven (7) days of closing the NEOC.

## **ANNEX A: COMMAND AND CONTROL STRUCTURE**

PERMANENT SECRETARY  
MINISTRY RESPONSIBLE FOR  
PORT DEPARTMENT

PERMANENT SECRETARY  
MINISTRY RESPONSIBLE FOR  
DEPARTMENT OF  
ENVIRONMENTAL SERVICES

## Annex B: OIL SPILL CONTINGENCY ADVISORY COMMITTEE (OSCAC)

Secretary to the Cabinet	Cabinet Office (Ex. Officio Member)
Permanent Secretary	Ministry responsible for Port (Joint Chair)
Permanent Secretary	Ministry responsible for Environmental Health Services (Joint Chair)
Permanent Secretary	Ministry responsible for Foreign Affairs
Permanent Secretary	Ministry responsible for Department of Fisheries
Permanent Secretary	Ministry responsible for Tourism
Permanent Secretary	Ministry responsible for Local Government
Financial Secretary	Ministry responsible for Finance
Attorney General	Attorney General's Office
Director	National Emergency Management Agency (NEMA)
Port Controller	Ministry responsible for Port
Bahamas Maritime Authority	Ministry responsible for Port
Commander Royal Bahamas Defence Force	
Commissioner of Police	
Comptroller of Customs	
Director of Immigration	
Department of Local Government	
Director, Department of Environmental Health Services	
Director of Civil Aviation	
Director, Meteorological Department	
Bahamas National Trust	
Bahamas National Geological Information Systems Centre	
Bahamas Environmental Science and Technology (BEST) Commission	
Bahamas Oil Refining Co. Ltd. BORCO)	
Esso Standard Oil SA. Ltd.	
Texaco Bahamas Ltd.	
Sun Oil Bahamas Ltd.	
Bahamas Electricity Corporation (BEC)	
Bahamas Air Sea Rescue Association (BASRA)	
South Riding Point Holdings Ltd.	
Freeport Harbour Company Ltd.	
Freeport Power Company Ltd.	
Freeport Oil Company Ltd.	
Bahamas Harbour Pilots	
Bahamas Water & Sewerage Corporation	

## Annex C: IMPORTANT TELEPHONE NUMBERS

Secretary to the Cabinet	322-2805-8
Permanent Secretary, responsible for Port Department	323-7814/5
Permanent Secretary, responsible for Department of Environmental Health Services	322-7425/6
Bahamas Maritime Authority	356-5772
Director Environmental Health	322-4908 or 326-3457
Director, NEMA	
Attorney General	322-1141
Nassau Port Controller	376-6022 (cell)
Public Analyst (Northern Bahamas)	242-352-5074/7887
Commander Bahamas Defence Force	325-8663
Police Department	322-4444
Financial Secretary	327-1530
Permanent Secretary, Ministry responsible for Tourism	322-7500 or 302-2067
Director Civil Aviation	377-7117
Tourism Office	302-2080
Bahamas Information Services	327-0070
Comptroller of Customs	326-4401
Department of Local Government	325-4560/4372/4185
Director of Immigration	322-7530-9
Bahamas Environment Science and Technology (BEST)	397-5508
Bahamas Air Sea Rescue Association (BASRA)	325-8864
Bahamas Electricity Corporation (BEC)	302-1000
Department of Marine Resources	393-0238 (fax)
Director of Meteorology	377-3701
Esso Bahamas	377-6509
Sun Oil Bahamas Ltd.	362-5792-4
Texaco Bahamas	322-1891
NEMA	322-6081
Bahamas Oil Refinery (BORCO)	242-352-9811
South Riding Point Holdings	242-353-4471
Freeport Harbour Controller	242-352-9651
The Nature Conservancy	242-326-0024; Fax: 326-0041
The Ministry of Foreign Affairs	356-5956; 502-9533 Natasha Turnquest





## **Annex D: LOCALLY AVAILABLE RESOURCES**

### **NEW PROVIDENCE**

#### **Nassau (Harbour) Port Department**

2 Tugs – 4,000 and 3400 horsepower respectively  
 1 25' work boat  
 2 Rigid Manta Skimmers  
 28 Oil Pads (15'x 19' x 100)  
 81 Oil Blankets (30' x 150)  
 2 storage tanks (1140 gallons each)  
 26,000 ft of Oil Containment Booms, absorbent pads. skimmer

#### **Clifton Pier Handlers of Petroleum Products**

Resources shared by Esso, Sun Oil, Texaco and Bahamas Electricity Corporation (BEC)  
 1,000 ft American boom  
 1,500 ft. slick bar boom  
 1 Vikoma Komara oil skimmer  
 4 cases Peat absorbent  
 2,000 ft. Peat Sorbent boom  
 4 dispersant spray back-packs  
 14 drums dispersant-COREXIT 9500  
 2 work boats (19 ft and 21 ft.)

### **GRAND BAHAMA**

#### **Freeport (Harbour)**

Plans and an equipment list are being developed

#### **Bahamas Oil Refinery Company International Ltd (BORCO)**

3 Tugs – 4,000 horsepower, each  
 2 Launches – 40 ft., 35 ft.  
 1 Pontoon Catamaran (9 ft. by 24 ft.)  
 2,200 ft. boom on pontoon  
 600 ft. boom in storage  
 55 bags absorbent boom and pads  
 1 Vikoma rotary skimmer  
 2 portable diesel pumps  
 3,245 gallons dispersant COREXIT 9527

### **Statoil (South Riding Point Holding Ltd.)**

2 Tugs – 4,000 horsepower each (approx.)  
 2 Launches suitable for dispersant spraying  
 1 Boston Whaler  
 4,000 ft. boom  
 4 Portable dispersant spraying sets  
 Dispersant stock (12,700 gallons CORREXIT 9527)  
 1 Vikoma Skimmer  
 1 Fastank

### **Vessel on-Board Facilities**

The small coastal tankers which supply the smaller islands, usually with fuels i.e. gasoline and diesel with limited pollution threat carry on board equipment immediately available to deal with on site spill – generally of Tier One category.

### **BAHAMAS AIR SEA RESCUE ASSOCIATION (BASRA)**

BASRA is a professional search and rescue Air Sea Rescue Association based in Nassau, and with a chapter in Grand Bahama. It provides two (2) high speed rescue craft, a 24 hour communication watch and has a large number of marine – experienced members all of which could provide a useful asset in oil spill response.

### **ROYAL BAHAMAS DEFENCE FORCE**

The Royal Bahamas Defence Force, under the Command of the Commodore, is a modern well equipped and highly trained maritime force stationed at Coral Harbour, New Providence, where it has maintenance facilities and a well-equipped operations centre.

The Force total approximately 890 personnel of whom 60 are officers and all are volunteers. 15 sea-going vessels, all which are capable of speeds in excess of 20 knots, include two 198 footers and 95 footers, three 108 footers, one 60 footer and two 40 footers. For inshore operations these vessels are supplemented by various small craft and Boston Whalers, and for air operations two Cessna aircraft are provided.

The roles of the Defence Force are wide-ranging but essentially it is developed in maintaining the integrity and the security of the waters of The Bahamian Archipelago and surrounding areas. In much of its work – especially in drug running and illegal immigration it works particularly closely with the United States Authorities.

In oil spill clean up the force has no dedicated role since its vessels are generally not suitable for dispersant spraying or oil recovery operations, but outside such specialised operations it has much to offer and below are identified some options:-

**ANNEX E: A MAP SHOWING ESPECIALLY SENSITIVE AREAS**

## **ANNEX F: EXTERNAL SOURCES OF EQUIPMENT AND MANPOWER**

### **General Observation**

The cost of external assistance, especially when involving air transportation, is inevitably high, and a careful balance must be struck to ensure that action is not to be perceived as being “unreasonable”, when compensation is subsequently sought from the CLC and the IOPC funds.

A few ready external resources are listed:

#### **A. CLEAN CARIBBEAN & AMERICAS (CCA)**

The Clean Caribbean & Americas (CCA) is a cooperative of nine oil companies whose objective is to enhance the capability to promptly and efficiently respond to marine oil spills in the region. The Membership includes most of the major international and regional oil companies and oil related facilities in the Caribbean and Latin America. CCA’s Area of Interest extends from the shoreline to the limit of the Exclusive Economic Zone (200 nautical miles).

The cooperative conducts its business activities as a non-profit U.S. corporation (Clean Caribbean Corporation) and is managed by a full-time staff. The inventory of equipment and supplies, which is capable of responding to a major oil spill anywhere in the region, is located in Fort Lauderdale, Florida, USA, in close proximity to two major international airports. As speed is essential for a successful oil spill response operation, CCA equipment is specifically designed and packaged to be air mobile for available commercial cargo aircraft (DC-8, B727, B757) capable of landing and unloading at a wide variety of airports. Consequently, the major advantage of CCA Membership is immediate access to an inventory capable of arriving at the spill site in a short time.

CCA has incorporated all recognised methods and tools of combating marine oil spills into its response inventory, including containment, mechanical recovery, temporary storage, shoreline clean-up and telecommunications for command and control. Because experience has shown that containment and recovery of oil may be difficult or impossible due to weather or limited access to the spill site, CCA has developed a significant dispersant capability, which includes the Airborne Dispersant Delivery System (ADDS) and 30,000 gallons (113,500 liters) of dispersant. CCA has the capability to conduct in-situ burning of oil through the use of fireproof boom and igniter equipment.

CCA Members do not act collectively to respond to an oil spill. The actual deployment of CCA equipment, management of the response operation, and financial obligations are solely the responsibility of the spiller or requesting agency. However, by rapidly mobilizing equipment, contractors and other support under a well exercised response system, CCA has collectively developed a capability for Members to respond to and substantially mitigate the environmental effects of an oil spill. CCA Technical Advisors typically deploy with equipment to provide technical support on the deployment, operation and maintenance of the equipment. The training of Member company personnel, government representatives and support contractors is also the key to an effective response system.

In a spill, CCA equipment and materials are provided through a pre-executed Sale Agreement. The Sale Agreement includes provisions for CCA to repurchase equipment, thereby lowering the equipment component of spill costs. Where equipment is not repurchased, proceeds from the sale are used to restock the inventory, ensuring a “perpetual” inventory without additional capital costs to Members.

CCA operates on the premise that an effective response to a major oil spill is best accomplished through close cooperation and coordination with local industry and national governments. An active Government-Industry Liaison promotes National Contingency Planning with the governments in the Area of Interest. Areas of focus include establishing mechanisms for expediting customs and immigration clearance, identifying and prioritizing sensitive resources, telecommunications frequency coordination, and enhancing decision-making on the use of dispersants and in-situ burning.

Over the years CCA has developed into the acknowledged leader in oil spill response in the Caribbean, Latin America and South American region. For further information please contact:

### **Equipment Inventory:**

The CCA equipment inventory consists of air mobile, multi-purpose, fully integrated, turnkey systems able to operate in a variety of environments (offshore, nearshore, onshore) and capable of recovering a wide range of petroleum products (Group II – Group V) in environments ranging from tropical to cold water. Included are spare parts and tools to support 1,000 hours of operation.

**DISPERSANT AND APPLICATION EQUIPMENT:** Airborne Dispersant Delivery System (ADDS-Pack), 30,000 gallons (113,500 liters) of COREXIT

EC9500A dispersant, dispersant transfer systems, helicopter and vessel spray systems.

**IN-SITU BURN EQUIPMENT:** Two In-situ burn systems, including fire resistant boom, leader boom, tow lines, bridles, and HeliTorch and floating igniter systems.

**CONTAINMENT BOOM & ANCHORING EQUIPMENT:** Over 40,000 feet (12,000 meters) of offshore, nearshore, harbor, and shore sealing boom, pre-assembled anchor systems, lighted buoys, and tow assemblies.

**MECHANICAL RECOVERY/SKIMMING SYSTEMS:** Skimming systems capable of recovering over 40,000 bbls/day per USCG capability calculation (6,400 m<sup>3</sup>/day) of Group II - Group V oils.

**TEMPORARY & INTERMEDIATE STORAGE & PUMPS:** Towable bladders, tanks, and pit liners support continuous skimming operations. Over 36 pump systems for product transfer, beach washing, oil herding and skimming.

**COMMAND, CONTROL & COMMUNICATIONS:** Telecommunications system capable of coordinating air, land and sea operations. Broadband Global Area Network (BGAN) mobile satellite service through stratos. System includes Thrane and Thrane Explorer satellite terminal, Dell D630 laptop, Iridium satellite phone and accessories. Internet connectivity from remote areas; supports up to 10 computers via ethernet or wifi connections. Ability to send e-mail and data. Voice communications via included analog phone. 3 Field Command Posts, INMARSAT equipped Mobile Response Center, portable shelters and generators for remote operations. ASA's OILMAP, Handheld GPS receivers,

**BEACH CLEAN-UP EQUIPMENT:** Wildlife Rehabilitation Center, steam pressure washers, 2 Beach Maintenance Vehicles (Bobcats), Utility Terrain Vehicles, a large inventory of sorbents, PPE support gear, Halogen emergency lights and portable generators.

**MISCELLANEOUS:** Air transportable containers, 36 air cargo pallets; compressors; stake truck, pick-up trucks; forklifts; chemical tank trailer and flatbed trailers. Small boats equipped with dispersant spray booms; provide working platforms for nearshore/shallow water operations, boom maintenance, and logistics support. Multi-purpose and flexible equipment packages are capable of operating in a variety of combinations and in a range of environments (offshore to shoreside) and include support required for 1,000 hours of turnkey operations.

**Contact:** Paul A. Schuler  
President

2381 Stirling Road  
Ft. Lauderdale, Florida  
33312, USA  
[staff@cleancaribbean.org](mailto:staff@cleancaribbean.org)  
Tel: (954) 983-9880  
Fax: (954) 987-3001

## **B. OIL SPILL RESPONSE LTD (OSRL)**

Oil Spill Response Ltd. (OSRL) of Southampton England has offices worldwide to provide safe, prompt and efficient response to oil spill incidents. OSRL maintains an on-call, world-wide response that carries a full range of clean-up equipment, 40 dedicated equipment operators that are immediately available by C130 Hercules aircraft with the dual capability of deploying the airborne Dispersant Delivery System or carrying other oil spill clean-up equipment. It also had immediate access to commercial freight aircraft availability. The deployment time for the C130 Hercules to The Bahamas area is 18-24 hours.

### **Response Readiness**

Guaranteed international response to members, 24 hours a day, 365 days a year

- The *Oil Spill Response's* Duty Manager will respond to an emergency call within 10 minutes
- Dedicated teams of highly experienced Response Staff trained to the highest industry standards on permanent standby
- Ability to deploy aerial dispersants on a worldwide basis
- Response packages to meet a whole range of response services in offshore, onshore and inland environments
- Equipment maintained to the highest industry standards
- Two Hercules aircraft held in constant readiness for equipment deployment and aerial dispersant spraying
- Conduct Service Level Agreement Workshops for member companies
- Three equipment stockpiles - Bahrain, Singapore, Southampton
- Access to Global oiled wildlife response service support

### ***Technical Advisory Service***

In order to improve incident response, *Oil Spill Response* will provide a Technical Advisor Service that delivers the following benefit:

- Added value to the customer – i.e. more for membership
- On-site advice alongside the customer – to ease/improve decision making
- A free service – anywhere in the world

Nearest services are provided on a per diem basis and details are available from:-

City Centre One  
800 Town & Country Blvd, Suite 300,  
Houston, TX, 77024  
USA

Tel: +1 832 431 3191  
Fax: +1 832 431 3001  
Email: [houston@oilspillresponse.com](mailto:houston@oilspillresponse.com)  
Tel: +44 1703 331551  
Fax: +44 1703 33197

### c. UNITED STATES COASTGUARD

The U.S. Coast Guard safeguards our America's maritime interests and environment around the world. The Bahamas has a formal relationship with the USCG through the Royal Bahamas Defence Force; and is an adaptable, responsive military force of maritime professionals whose broad legal authorities, capable assets, geographic diversity and expansive partnerships provide a persistent presence on the high seas. Coast Guard presence and impact is local, regional, national and international. These attributes make the Coast Guard a unique instrument of maritime safety, security and environmental stewardship.

The nearest source of US Coast Guard advice and assistance is:-

Commander  
Operations Centre  
USCG Seventh District  
Brickell Plaza Federal Building  
909 SE 1<sup>st</sup> Avenue  
Miami, FL 33131-3050  
Tel: (305) 536-5311





#### **D. MARINE SPILL RESPONSE CORPORATION**

The Marine Spill Response Corporation (MSRC) has oil spill response resources, at the center of which is a fleet of 15 dedicated Responder Class Oil Spill Response Vessels (OSRVs), designed and built specifically to recover spilled oil. The OSRVs are approximately 210 feet long, have temporary storage for 4,000 barrels of recovered oil, and have the ability to separate oil and water aboard ship using two oil-water separation systems. To enable the OSRV to sustain cleanup operations, recovered oil is transferred into other vessels or barges. In addition to these 15 OSRVs, MSRC also operates two other OSRVs in the San Francisco Bay, CA, four in Southern California, and one in Puget Sound, WA.

MSRC is outfitted with other specialised response vessels and support equipment, including:

- 19 Oil Spill Response Barges with storage capacities between 12,000 and 68,000 bbls
- 68 Shallow Water Barges
- 600,000 feet of boom
- Over 240 skimming systems
- 6 Self-Propelled Skimming Vessels (32 ft. to 58 ft.)
- 7 Mobile Communications Suites comprising telephone and computer connections, and UHF and VHF marine, aviation and business band radios
- Various small crafts and shallow-water vessels
- One C-130 dispersant aircraft
- One King Air dispersant/spotter aircraft

At present The Bahamas Government is not a member of the MSRC. However, noting that rapid response in the critical early stages of a spill is key to a successful response. With MSRC's dedicated resources in the continental U.S., Hawaii, and the Caribbean, MSRC is well positioned to provide such response. Emergency Contact:

Telephone (703) 326-5000

Fax (703) 326-5600



## **Annex G - EXTERNAL SOURCES OF EXPERT ADVICE**

1. Clean Caribbean & Americas (CCA)  
2381 Sterling Road  
Fort Lauderdale, Florida 33312, USA  
Telephone: 954-983-9880  
Fax: 954-987-3001
2. United States Coast Guard  
District 7  
Operation Centre  
Miami, Florida, U.S.A.  
Telephone: 305-536-5311
3. Regional Marine Pollution Emergency Information and Training Centre for the Wider Caribbean (REMPETIC-Carib)  
Curacao  
Netherlands Antilles  
Telephone: 59 99 461-4012  
Fax: 59 99 461-1006
4. The Marine Spill Response Corporation (MSRC)  
Miami, Florida  
United States of America  
Telephone: 305 375-9279  
Fax: 305-577-8523
5. Oil Spill Response Ltd.  
Lower William Street  
Northam  
Southampton  
SO14 5QE  
England  
Telephone: +44 1703 331551  
Fax: +44 1703 331972
6. International Tanker Owners Pollution Federation Limited (ITOPF)  
Staple Hall  
Stonehouse Court  
87-90 Houndsditch  
London EC3A 7 AX  
Telephone: 44 171 621 1255 (24 Hour: 44 142 691 4112)  
Fax: 44 171 621 178
7. International Maritime Organisation (IMO)  
4 Albert Embankment  
London SE1 7SR  
England

Telephone: 44 171 735 7611

Fax: 44 171 587 3210

8. International Oil Pollution Compensation Fund (IOPC Fund)

4 Albert Embankment

London SE1 7SR

England

Telephone: 44 171 735 7611

Fax: 44 171 587 3210

## **ANNEX H – OIL SPILL REPORTING REQUIREMENTS**

This form should be completed as far as possible to ensure that responsible agencies take immediate, effective action.

Name of Ship, Airport, Agency or Person Reporting (of involved)\_\_\_\_\_

Date and Time of Incident or Observation\_\_\_\_\_

Source of Spill (if known)\_\_\_\_\_

If a vessel is the source:

Name of Vessel\_\_\_\_\_

Port of Registry\_\_\_\_\_

Type of Vessel and Sise\_\_\_\_\_

Location of Incident\_\_\_\_\_

Quantity Discharged\_\_\_\_\_

Identity of Substance (if known)\_\_\_\_\_

Wind and Sea conditions\_\_\_\_\_

Owner of Substance (if chartered vessel)\_\_\_\_\_

Salvage Arrangements (if any proposed)\_\_\_\_\_

Slick Sise and Colour\_\_\_\_\_

Spill due to (if known)\_\_\_\_\_

Collision\_\_\_\_\_

Grounding\_\_\_\_\_

Other (i.e. leak, spill container)\_\_\_\_\_

### **SPILL SIZE CLASSIFICATION**

Due to the difficulty in defining the full seriousness of a spill by its size in barrels or gallons, spill size classification is to use the currently agreed definition of Tier **catégorisation specified in para. 2.2 (a) (b) and (c) on page 7.**



## **ANNEX I – REGIONAL REPORTING PROCEDURE (CARIBPOLREP)**

After receipt of the initial report of an oil spill incident the Lead Agency will probably require confirmation of the spill sighting. After the has been confirmed the Lead Agency, utilizing the Caribbean Oil and Hazardous Material Spill Alerting Mechanism will prepare a CARIBPOLREP message to notify neighbouring Island States and Territories that may be affected by the spill.

The CARIBPOLREP message will be sent directly to neighbouring islands or to the Regional Marine Pollution Emergency Information and Training Centre wider Caribbean (REMPEITC-CARIB) (Tel: 011 599 9 868 4612/3409 Fax: 011-59 99 868 4996), who will pass the message to member Island States or Territories alerting them of the spill, and the possibility that assistance may be needed as defined in the Caribbean Plan.

Once the initial CARIBPOLREP message has been sent subsequent messages will be routed through the established routing network until the spill emergency has been concluded.

### **CARIBPOLREP Format**

The following is a summarised list of the composition of the CARIBPOLREP message.

#### **HEADING**

1. Date time group:
2. From:
3. To:
4. Subject:

#### **SITUATION**

1. Date and Time:
2. Position:
3. Incident:
4. Outflow:
5. Characteristics of Pollution.
6. Source and Cause of Pollution.
7. Wind direction and speed.
8. Current or tide.
9. Sea state and visibility.
10. Drift of pollution.
11. Forecast.
12. Identity of observer and ships on scene

#### **ACTION TAKEN**

1. Implementation of National Contingency Plan.
2. Incident surveillance.
3. Photographs of samples.
4. Names of other states informed.



## **FUTURE PLANS**

Various types of information such as anticipated changes of command; reducing information exchange to encompass only relevant, affected parties,; etc.

## **ASSISTANCE REQUESTED**

1. Source of assistance.
2. Estimated cost.
3. Pre-arrangement for delivery.
4. Assistance to where and how.
5. Other states requested.
6. Name and passport numbers of persons.
7. Description of equipment.
8. ETA and arrival information.
9. Place of embarkation.
10. Place of disembarkation.
11. Other.

If the CARIBPOLREP is used in exercises, the text is to be introduced with the word EXERCISE and finished with this word three times. Each of the subsequent reports which deal with the exercise is to be introduced and finished with the work EXERCISE as well.

## **CARIBPOLREP EXPLANATION**

### **HEADING**

1. Date Time Group:
2. From:
3. To:
4. Subject:

### **REMARKS**

The day of the month as well as the time of day of the message.

Lead Agency of the Island State of Territory that initiating the message.

Regional Marine Pollution Emergency Information and Training Centre, Wider Caribbean (REMPEITC-CARIB) who will pass the message to other Island States or Territories. Lead Agencies may pass information directly to other Island States of Territories that may be affected by the spill.

CARIBPOLEP, sequential number of the report and the name of the vessel or facility involved in the spill incident.

### **SITUATION**

1. Date and Time: Date and time of the incident.
2. Position: Position of vessel or vessels involved in the incident. If source of spill is unknown location by latitude and longitude in degrees

and minutes and may, in addition, give the bearings of and the distance from a location known by the receiver.

3. Incident: The nature of the incident should be stated here, such as BLOWOUT, TANKER GROUNDING, TANKER COLLISION, OIL SLICK, etc.
4. Outflow: The nature of the pollution, such as CRUDE OIL, CHLORINE, DINITROL, PHENOL, etc., as well as the total quantity in tones of the outflow and/or the flow rate, as well as the risk of further outflow. If there is no pollution but a pollution threat, the words NOT YET followed by the substance, for example, NOT YET FUEL OIL, should be stated.
5. Characteristics of Pollution: Gives type of pollution, e.g., type of oil with Pollution viscosity and pour point, packaged or Bulk chemicals, sewage. For chemicals, give proper name or United Nations number, if known, For all, give also appearance; e.g., liquid, floating solid, liquid oil, semi-liquid sludge, tarry lumps, weathered oil, discoloration of sea, visible vapour. Any marking on drums, containers, etc., should be given.
6. Source and Cause of Pollution: e.g. from vessel or other undertaking. If from vessel, say whether as a result of a deliberate discharge or causality. If the latter, giver brief description. Where possible, give names, type, size, call sign, nationality, and port of registration of pollution vessel. If the vessel is proceeding on its way, give course, speed and destination.
7. Wind Direction and speed: Indicates wind direction and speed in degrees and MPH. The direction always indication **from where the wind is blowing.**
8. Current of Tide: Indicates current direction and speed in degrees and knots and tenths of knots. The direction always indicates the **direction in which the current is flowing.**

9. Sea State and Visibility Sea state indicated as wave height in meters. Visibility is in nautical miles.
10. Drift to Pollution: Indicates drift course and speed of pollution in degrees and knots and tenths of knots. In case of air pollution, (gas cloud), drift speed is indicated in m/s.
11. Forecast: Eg: arrival on beach with estimated timing. Results of mathematical models, or computer trajectory modelling.
12. Identity of Observer and Ship on Scene: Indicates who has reported the incident. If a ship, name, home port, flag and call sign must be given. Ships on scene can also be indicated under this item by name, home port, flag and call sign, especially if the polluter cannot be identified, and the spill is considered to be of recent origin.

#### **ACTION TAKEN**

1. Implementaion of National Contingency Plan: Indicate if the National Contingency Plan has been activated. If appropriate, give the name of Response Agency, On-Scene Commander.
2. Incident Surveillance: Indicate type of spill surveillance such as aerial or vessel. Number of over flights per day, etc.
3. Photographs or Samples: Indicates if photographs or samples from the pollution have been taken. Fax or telex number of the sampling authority should be given.
4. Name of Other States Informed: Lead Agency initiating message concerning the spill incident should name the other Island States that have been notified directly. This is important if the control of communications is being passed to the REMPEITC-Carib. If being so passed, identify Island States to whom the alert is to be re-addressed.

#### **FUTURE PLANS**

1. Future Plans: Describe the action contemplated in response to the discharge or threat of discharge.

## SOURCE OF ASSISTANCE

1. Source of Assistance: Name of Lead Agency and name of Island State or Territory and the type of assistance required in form of:
  - Specified equipment
  - Specified equipment with trained personnel
  - Complete strike teams
  - Personnel with special expertise
  - With indication of Island State or Territory requested
2. Estimated Cost: Requirements for cost information to requesting Island State or Territory of delivered assistance.
3. Pre-arrangement Delivery of Assistance: Information concerning customs clearance, access to territorial waters, etc., in the requesting Island or Territory
4. Assistance to Where and How: Information concerning the delivery of the assistance eg rendezvous at sea with information on frequencies to be used, call sign and name of on-scene commander of the requesting Island State or Territory of land-based authorities with telephone number, fax, or telex number and contact person.
5. Other States Requested: Only used if not covered by external assistance requested or if further assistance is needed by other Island States or Territories.
6. Personnel Names and Identification: Names of persons responding from an assisting Island State including their passport numbers. This information is necessary to facilitate rapid entry into the requesting Island State or Territory.
7. Description of Equipment: A brief description of the equipment including serial and model numbers. Also included a list of any component parts that are being shipped with the equipment.
8. ETA and Arrival Information: Time and place of arrival of equipment and of personnel should be given to accommodate clearance with customs and

immigration officials in the requesting Island State or Territory.

9. Place of Embarkation:

The responding Island State should include the airport or seaport where responding personnel are departing. The Information should give flight names and numbers and/or vessel names.

10. Place of Disembarkation:

The responding Island State should give the airport or seaport where responding personnel will be arriving in the requesting country.

11. Other

Any relevant information pertaining to the spill should be included such as results of field inspections or surveys. Statements of ships personnel. Vessel and cargo owners and if the owners are members of a cooperative association, etc.

## **Annex J – AIRFIELD DETAILS**

Airfields for handling airborne, external cleanup reinforcement need to be assessed, based on the following characteristics:

- a) Runway length and strength
- b) Ramp strength and space
- c) Unloading facility (i.e. forklifts, cranes, trucks)
- d) Clean exit road route from airport
- e) Provision of aviation fuel
- f) Day/Night availability
- g) Covered storage space

### **Airfield Runway Statistics for The Bahamas**

1. New Providence – Nassau International
  - a. Full international facility – Runway 11,000 feet x 150 feet, 24 hour operation, 100 octane, JPI Aviator fuels
2. Grand Bahama – Grand Bahama International
  - a. Full international facility – Runway 11,000 feet x 150 feet, daily, 1200 0800VTC (7:00a.m. – 3:00a.m.), 100 octane, JPI fuel
3. Abaco – Marsh Harbour International
  - a. Limited facilities – Runway 5,000 feet x 100 feet, RWY No lights (sunrise to sunset), No fuel
4. Eleuthera – Governor’s Harbour International
  - a. Limited facilities – Runway 7,950 feet x 150 feet, APPCH and RWY lights, PAPI RWY 15 only sunrise to sunset operation, No fuel
5. Cat Island – Arthur’s Town
  - a. Runway 7,000 feet x 150 feet, (sunrise to sunset operation), No fuel
6. Long Island – Deadman’s Cay
  - a. Runway 4,000 feet, (sunrise to sunset operation), No fuel
7. San Salvador – Cockburn Town
  - a. Runway 4,200 feet, (sunrise to sunset operation), No fuel
8. Great Exuma – Exuma International

- a. Runway 7,000 feet, (sunrise to sunset operation), No fuel
9. Crooked Island – Colonel Hill
- a. Runway 3,500 feet, (sunrise to sunset operation), No fuel
10. Great Inagua – Matthew Town
- a. Runway 7,000 feet, (sunrise to sunset operation), No fuel
11. Andros –Congo Town
- a. Runway 5,300 feet, (sunrise to sunset operation), No fuel
12. Mayaguana
- a. Runway 2,700 feet, unattended
13. Bimini – South Bimini
- a. Runway 500 feet, (sunrise to sunset operation), No fuel

## **Annex K – OIL SPILL COUNTER MEASURES**

Options in response to oil spills are:

### **At Sea**

- a) Removal of fuel and/or oil cargo from vessels at risk to remove threat of further spillage.
- b) Mechanical Recovery of oil by means of floating booms to contain oil or to direct it to a selected site, and skimmers to recover and to pump the oil into containment tanks for subsequent disposal. This system is dependent on calm sea conditions. Defensive booming to protect sensitive areas is a key element of the clean-up strategy.
- c) Dispersant Application by spraying of chemicals by aircraft or boat to accelerate the natural dispersion of the oil. This is only suitable on crude oil in early stages of spill (i.e. 48 hours) prior to formation of emulsion.
- d) Do nothing and allow nature to take its course. This option should always be considered and may be applicable on uninhabited islands and particularly sensitive area (i.e. wet marshes).

### **On Land**

Beach clean-up is a labour intensive operation frequently using a high proportion of non-specialist equipment found in the relevant government department and with construction contractors. Tar balls from illegal spillage also require beach clean-up, but are more in the category of waste disposal than oil spill clean-up.



## **Annex L – POLICY FOR USE OF DISPERSANTS**

The Caribbean Plan envisions that each Island State or Territory will develop its own policy pertaining to the use of dispersants in its Exclusive Economic Zone (EEZ). The dispersant policy adopted by the State or Territory will be part of its National Contingency Plan.

Over the past several years, scientific studies have shown that the new generations of dispersants, in themselves, exhibit low toxicity even at application concentrations ten times those prescribed. Studies have also shown that the concentration of dispersed oil in the water column drops off significantly at depths below three metres and, given reasonable flushing, dispersed oil does not remain in the area of application for any significant length of time as it is distributed and diluted by the currents. More or less aggressive use of dispersants may be warranted. Each Island State and Territory is encouraged to establish guidelines based on its own environmental considerations and circumstances within its own territorial seas.

It is the position of the Island States and Territories that use of dispersants using the following parameters will cause no significant environmental harm from such use. It is the policy of the Island States and Territories that when combating spilled oil within its territorial seas, the OSC as authorised by the Lead Agency may use dispersants without prior notifications to other Island States and Territories under the following parameters:

1. The area of application is not less than one nautical mile from any shoreline, nor closer than three nautical miles up-current from important marine fisheries or coral reef ecosystems which are less than 20 feet from the water's surface;
2. The water depth should exceed 30 feet in the area in which the dispersant will be applied;
3. The method of application is one recommended by the manufacturer;
4. The rate of application is as recommended by the manufacturer;
5. The dispersants exhibit low toxicity;
6. The Lead Agency will notify potentially affected downstream Island States and/or Territories whenever dispersant use is intended to be conducted beyond its territorial seas.

In the event the OSC determines that the use of dispersants is necessary and if it is apparent that Island States and/or Territories may be affected downstream, then concurrence for such use must be obtained from the potentially affected Island State and Territories outside the parameters of the criteria of 1 – 6 (above).

Response operation, including the application of dispersants, will not be conducted in the EEZ of another Island State or Territory without prior concurrence of the Lead Agency of that Island State and/or Territory.

During a dispersant operation, the OSC should determine the effectiveness of the dispersant application by on-scene observation and/or by laboratory testing.

Application of dispersants should be discontinued if proven to be ineffective.

To establish and updated list of dispersants stockpiled in the region, each Island State or Territory will submit to the Focal Point Agency (REMPEITC-Carib) the quantity, size of storage

containers, brand name, type, and location of storage. (Example: 12-55 Gal. plastic lined drums of Corexit 9527). The update information will be submitted on an EQUIPMENT/DISPERSANT LOCATION page for insertion in Chapter V of the Caribbean Plan.

### **Application of Dispersants**

The best combination of dispersants and application method must be selected for the specific situation. On the open sea, they can be applied from surface vessels and from aircraft. It is very important to use proven equipment that has been properly calibrated, and to follow the instructions of the suppliers of equipment and dispersants.

Spraying operations should be started as soon as possible after it has been decided that dispersant use will form part of the response. Many oils will form stable water-in-oil emulsions (chocolate mousse) of which the viscosity will be higher than that of the original oil. The Extent of emulsification and the stability of the emulsion will depend upon the type of oil, sea state, and temperature. The viscosity also increases because of the evaporation of lower molecular weight hydrocarbons. Both processes may have taken place to a considerable extent within a couple of hours after the spill and thus dispersant effectiveness may be reduced if application is delayed. After oil has emulsified into mousse, it is very difficult to disperse. Treatment with dispersants should, therefore, start before the mousse formation or extensive weathering has taken place.

Supplying an adequate quantity of dispersant to deal with a large spill can often be a problem. Spill response managers should include in their contingency plans an inventory of suitable dispersants and should be aware of how this supply can be augmented from additional resources. In the event that the supply is inadequate, spill response managers should prepare to use a combination of response techniques.

### **Operational Use and Application of Dispersants**

In general, dispersants are applied either by surface vessels equipped with dispersant spray booms and support equipment (pumps, hoses, dispersant drums/tanks) or by aircraft (fixed-wing or helicopter) using specially designed spray equipment and systems. In general, dispersants are only minimally effective when applied by means of fire monitors.

Proper use of dispersants requires the appropriate dosage in terms of amount of chemical per unit area, such as gallons per acre, litres per hectare, etc. The dosage is extremely variable and depends on the type of dispersant, type of oil, slick thickness, temperature, viscosity, and other characteristics of the spilled oil. The actual flow rates are a function of the vessel/aircraft speed, the pump capacity, the dilution rate, and the effective swath width covered.

**Surface Application.** Most surface dispersant spray systems existing in response inventories utilise an education pump system that dilutes a dispersant concentrate with seawater before being sprayed on the surface through multiple-nozzle spray booms. Mounting spray booms ahead of the vessel's bow wave and wake assist in proper application of the dispersant to the oil. Vessel-spray and pump-system flow rates must be periodically calibrated to assure the desired dosage. Despite improvement in vessel spraying equipment, the technique will always have some limitation, due to the low treatment rates and inherent difficulties of locating oil slick from a vessel.

Aerial Application. In contrast, aerial spraying offers the advantages of rapid response, good surveillance, high treatment rates, optimum use of dispersants, and better evaluation of dispersant treatment. Aerial spraying has been successful on numerous occasions and has advantages over surface spraying in that aircraft can travel to the scene of a spill much more rapidly than can surface vessels. In addition, large, particularly fixed-wing, aircraft have the ability to apply large quantities of dispersant more rapidly than surface vessels. Helicopters have the advantage of speed of response but are more limited in range and in volume of dispersants that can be carried in comparison with large fixed-wing aircraft. Concentrate dispersants are applied undiluted at low altitude (50-100 feet) with the recommended dosage per unit area remaining the same.

Absolutely critical to any aerial dispersant operation is the inclusion of a dedicated airborne observer aircraft with an experienced dispersant expert who can direct the spraying operation and visually determine the effectiveness of the dispersant application.

*Reference:*

- “IMO/UNEP Guidelines on Oil Spill Dispersant Application and Environmental Considerations”
- REMPEITC Code, Annex 1

## **Annex M: COMMUNICATION ARRANGEMENTS**

A well-developed communication system exists within all agencies i.e. Port, Airport, Defence Force, Police, etc. and these are at present in the process of being centralised and coordinated within a new sophisticated Motorola communication system being installed in Police Headquarters. This new system will ensure improved compatibility combined with a series of direct lines between important people agencies. When all this is completed, it is most important to rewrite this section to include some technical details regarding channels and frequencies so that people coming from outside The Bahamas can readily have that information available to them to ensure instant operation and integration.

A cellular telephone system is available in The Bahamas.

**Annex N – MAP OF THE COMMONWEALTH OF THE BAHAMAS**

## ANNEX O: Oil Spill Response Actions

An oil spill in The Bahamas could occur on land, water, from a vessel, or start on the land and migrate to an adjacent body of water. The quality of information that is first reported to the Response Coordinator is of special importance. With accurate information on the nature or the spill combined with information on the environmental countermeasure resources prior to visiting the spill site.

Decision trees assist the Response Coordinator to determining spill response actions. The decision trees are based upon spill location and to surface waters and/or from affecting sensitive habitats in the area.

### Response Phases

The response to an oil spill incident will involve actions which can be separated into four relatively distinct phases: These phases may occur simultaneously.

PHASE I:	Discovery and Notification – Includes those measures wherein an oil spill is observed and reported to appropriate government agencies (See Annex H)
PHASE II:	Containment and Counter Measures – Includes basic defensive measures initiated immediately after discovery of an oil spill. Subsequent to his arrival on the scene, the Response Coordinator may implement defensive actions including: <ul style="list-style-type: none"> <li>• Source Control – It is of paramount importance that the source of the spill be eliminated immediately. This may entail pulling a vacuum on a leaking pipeline, pumping water into a ship’s leaking tank to create a water seal or transferring cargo to an available tank, etc. It is imperative that a sample of the spilled oil is taken immediately and provided to a lab for analysis and fingerprinting.</li> <li>• Containment – As a first response to any oil spill, efforts must be made to contain the spill. Deploying an oil boom around the affected areas usually does this. Immediate boom deployment is especially critical in the event of a marine spill. (See Annex K)</li> </ul>
PHASE III:	Cleanup and Disposal –Includes actions taken to remove spilled oil from water, land, and other affected property through the use of skimming equipment and physical labour using basic tools and equipment (See Annex K) <ul style="list-style-type: none"> <li>• Recovery – Once booming has successfully contained the oil, every effort must be made to recover the oil. This can be accomplished with a shimming device to retrieve oil from the surface of the water used in conjunction with a storage or holding unit to collect skimmed oil.</li> <li>• Dispersal – Discretion will be used in the application of dispersant (Annex L)</li> </ul>
PHASE IV:	Restoration – Includes those actions taken to restore the environment to its pre-spill condition (where possible) including assessing damages incurred, taking appropriate corrective actions, caring for affected wildlife, and studying post-spill environment impacts.



Figure O-2 Action Plan (Page 61)

Figure O-3 Decision Tree for Offshore Spill (Page 62)

Figure O-4 Coastline Impact (Page 63)



## COMMAND AND CONTROL STRUCTURE

The ultimate responsibility for the protection of the environment and other national assets lies with central government, but many other tasks may be delegated to local communities, the oil industry and other related agencies. The command and control structure at Annex A is compatible with the national plan and is recommended for island use.

In support of this structure is the need for a supporting action group or Oil Spill Action Committee as suggested at Annex B. It is recommended that those named should form this committee although circumstances will differ between islands. Anybody else can also be co-opted as required.

In addition to the above, there are several other initiatives which should be taken by the community

- (a) to accept the principle of external reinforcement from within The Bahamas for a Tier II spill and from overseas for a Tier III spill and to ensure that all legislation and regulation permits unhindered operation and response conduct.
- (b) to ensure that the Airport, Customs, and Immigration authorities are prepared to ensure speedy and free access to reinforcements arriving by air.
- (c) to identify all equipment – and people of special experience – in the islands which have applications to beach cleaning, to list the details and to ensure that any agreements regarding their use are already in place.
- (d) to carry out sensitivity mapping of the coastlines to ensure that priorities for clean-up are established and understood in advance. Sensitivity mapping consists of assessing the coastline in respect of environmental sensitivity i.e. bird sanctuaries, fish-breeding grounds, mangroves, and any other special considerations tourist and recreational factors such as yacht marinas and beaches.

## **ANNEX P – FUNDAMENTAL REQUIREMENTS FOR AN OIL SPILL CONTINGENCY PLAN FOR THE FAMILY ISLANDS**

### **The Threat**

The threat to the Family Islands from marine oil pollution will depend on the geographical position of the island and the proximity of passing oil tankers, cruise liners and other vessels as well as any threat emanating from any oil related activity on its coast or in its near waters (and this includes the regular provision to the islands of aircraft, automobile and domestic fuels by coastal tanker).

### **The Nature of Oil**

Oil type is identified by its viscosity. Light oils in the marine environment evaporate into the air and disperse into the water fairly quickly whilst thicker oils persist for a long time and are slow to disperse. It must, however, always be remembered that oil is a natural product and, left to its own resources in the marine environment, will slowly disperse naturally into the water where it will be taken up in the natural marine food chain.

### **Philosophy of Response to Oil Spills**

When oil is spilled in the sea, it will finally – unless the winds and current carry it away from the coast – finish up on the beach. Accordingly, response to oil spills is divided into two phases – at sea and on shore.

#### **At Sea**

Dealing with oil on the surface can take three forms:

- a) the application of chemical dispersant which has the effect of increasing the natural rate of dispersion. This can be done by aircraft or boats especially equipped but must be carried out quickly and before the onset of emulsion formation which occurs in 48 hours.
- b) the collection of oil off the surface of the water by means of two boats towing a boom – a type of inflated rubber tube – to gather the oil and then pick it off the surface of the water with special collection devices called ‘skimmers’.
- c) Do nothing and allow the natural process to take place.

#### **On Shore**

Unlike the quick, sophisticated operations at sea, cleaning oil on beaches is a relatively uncomplicated, long-term, labour intensive operation of carefully removing the oil by simple means of spades and shovels assisted by mechanical equipment such as bulldozers, tractors, hoses and sewage/gulley tankers.

A resulting problem arising from removing oil from the beaches – which also includes much of the sand itself – is how to dispose of this recovered waste which can constitute a very large task.

**Policy**

Clearly, island communities are not going to be able to mount an at sea response of any consequence, although fishing boats and scheduled aircraft can be used to identify the size and position of the slick. The calling in of resources for major at sea operations from outside agencies – one of which the Clean Caribbean Cooperative at Ft. Lauderdale, Florida is written into The Bahamas Government National Oil Spill Contingency Plan. For beach cleaning, considerable preparation is required among island communities.