



International Maritime  
Organization



International Petroleum Industry  
Environmental Conservation  
Association (IPIECA)

## **COURSE OPRC Level 1 FIRST RESPONDER AND TRAJECTORY MODELING**

23 – 26 March 2009, Lagos, Nigeria



**GIWACAF**

**GLOBAL INITIATIVE FOR WEST AND CENTRAL AFRICA  
(GI WACAF)**

# OPRC Level 1 First Responder & Trajectory Modelling

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## OPRC Level 1 First Responder & Trajectory Modelling

### 1 Introduction

The National Oil Spill Detection and Response Agency (NOSDRA), in collaboration with the International Maritime Organisation (IMO) and the International Petroleum Industry Environmental Conservation Association (IPIECA) under the Global Initiative for West and Central Africa (GI WACAF) organized a four-day training OPRC Level 1 and Trajectory modelling on the 23 - 26 March 2009. The technical lectures of the workshop took place in the conference room of NOSDRA while the practical aspects of the workshop took place in the facilities of the Nigerian Ports Authority (NPA) in Tin-Can Island, Lagos.

The workshop was proposed following the regional GI WACAF workshop organized in Republic of Congo in December 2007 where the GI WACAF Project focal Point for Nigeria identified a need to develop an OPRC level 1 training to strengthen the national oil spill capability.

### 2 Objectives and Programme of the workshop

The workshop was designed to provide technical knowledge and practical experiences and to enable responders from key organizations in the country to strengthen their oil spill response capability. The programme was organised into three parts:

Part 1: technical presentations on oil spill response strategies and oil spill response techniques including boom deployment, oil recovery techniques and shoreline clean-up.

Part 2: practical deployment exercises for delegate to practice the deployment of oil spill response equipment.

Part 3: Table top exercise for delegate to practice the oil spill response strategies.

See the programme of the workshop in **Annex 1**.

### 3 Roles and Participants

NOSDRA ensured the general organisation of the workshop and facilitated the hosting of delegates. NOSDRA also provided the required oil spill response equipment to enable training.

The experts in charge of the workshop were:

Rob Bly on the behalf on IPIECA from *Oil Spill Response*

Anyaogu Eric Ogbuh on the behalf on IPIECA from *Oil Spill Response*

An average of forty delegates attended the training representing a wide range of stakeholders from the government (NOSDRA NIMASA, NNPC - PPMC, NPA) and the oil industry. (Shell, ENI, Addax Petroleum, Chevron, TOTAL, GLI, SNEPCO, ExxonMobil).

The participant list is in **Annex 2**.

# 4 Summary of presentations

## 4.1 Opening ceremony

The training was opened by the Chief Executive, Director General of NOSDRA Mr. B.A. Ajakaiye. During his speech Mr. B.A. Ajakaiye reminded the role of NOSDRA and its position as leader agency in west and central Africa to detect, prevent and respond to oil spills.

Mr. Ajakaiye reminded NOSDRA vision to ensure a safe, timely, effective and appropriate response to all oil pollutions. This vision is achieved by having offices in key locations, identified high-risk areas or sensitive areas. He also highlighted the partnerships developed to strengthen oil spill response capability and raise awareness in the country.

Finally, he thanked the delegates from the Nigerian Maritime Administration and Safety Agency (NIMASA), Petroleum Products Marketing Company (PPMC) and from the oil companies and thanked the support of IMO and IPIECA through the GI WACAF project.

## 4.2 Technical presentations

The training course was focussed on technical aspect of oil spill response with practical deployment of oil spill response equipments and technical presentations. Sixteen technical presentations were delivered during the training. These presentations are summarised below.

**Presentations of the GI WACAF Project:** explained the background of the GI WACAF project, its objectives and the progress achieved in the region in oil spill preparedness.

**Oil Types, Characteristics, and Causes & Fate:** How oil will behave when spilled; how it weathers and changes over time. Extra emphasis will be placed on how oil behaves differently when spilled on land.

**Environmental Considerations:** A closer look at the environmental impacts of an oil spill in the country and how these impacts can be mitigated.

**Hazards to Responders:** oil spill response operation might create hazard to responder themselves. This presentation listed the hazard types and the way to prevent these hazards

**Response Options Introduction:** The existing response options were detailed to enable responder to understand which response option would be appropriate to which particular situation.

**Monitor and Evaluate:** Describe surveillance, tracking and quantification of oil spills, aerial surveillance techniques; quantification of floating slicks by visual assessment; factors affecting movement of oil on water; output of computer prediction models; sampling of oil spill techniques and requirements.

**Recovery Devices:** this presentation provide a list of existing recovery devices

**Containment and Protection:** Examine the structure, uses, deployment techniques and limitations of boom; main response strategies and their basic advantages and disadvantages; new technologies in oil spill response

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**Shoreline Clean-up:** The techniques used in shoreline and riverbank response. Shoreline cleaning, use of manual labour, logistical challenges and equipment selection.

**Chemical Dispersants:** An in-depth look at the use of dispersants, including application and monitoring, logistics, handling and tactical planning.

**Waste Management:** The incredibly important of waste management during a spill. Often overlooked, but commonly the weak link in the system. How to devise a waste management plan and techniques for waste disposal. A look at Gabonese legislative requirements for hazardous waste.

**Claims & Compensation:** Explain to participants the existing international system for claims and compensation for oil spills originated from ship established under the IOPC Fund and regulated by two key international convention the CLC 92 and the Fund 92.

**Tasman Spirit Case Study:** This case study outlines lessons learned from a real life case history. In this case study we will look at the spill impacting a large shoreline where the stakeholders did not have equipment, personnel or a plan.

**Deployment Techniques Exercise:** Practical Deployment Exercise using appropriate booms, skimmers and waste storage for river/offshore response. Vessels will be required to position booms and mini fasflow skimming system.

**Termination and Monitoring of a Response:** Familiarisation with the deactivation phase, including all aspects from archiving paper work to cleaning equipment.; post spill rehabilitation of response equipment; criteria used in determining cessation of clean-up and termination of response; the need for post spill briefings; environmental sampling and monitoring

**Shoreline Supervisor Roles and Responsibilities:** Enable to understand the command structure from the shoreline to the Incident Command Leader; know how the supervisor knowledge will assist the ICS to make strategic decisions; information relay up and down the chain of command; effectively take control at the scene of an incident.

## 5 Conclusions

The feed back from the participants were excellent and the training was overall very successful. The quality of presentation was acknowledged by participants, and delegates developed a technical expertise on oil spill response.

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### Annex 1. Programme

Monday 23 March 2009

09.00	Introductions – Course Opening, Expectations & Course content	
10.00	Presentations of the GI WACAF Project To give an insight on GI WACAF relevance to the locality	
11.00	Coffee Break	
	Oil Types, Characteristics, Causes & Fate To include a group exercise on the properties of different oils, analysing typical Nigeria crudes	
12.30	Lunch	
	Environmental Considerations To specifically address some of the local sensitivities within the delta and wider area	
	Hazards to Responders To highlight security /safety hazards specific to the local area.	
15.30	Coffee Break	
	Response Options Introduction Group discussion about potential response strategies.	
	Monitor and Evaluate A look at the use of aerial surveillance and oil spill modelling during a response	
17.30	End of day	

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Tuesday 24 March 2009

09.00	Review of Previous day
09.15	Recovery Devices A look at the different types of skimmer and recovery equipment used in response
10.15	Containment and Protection
11.15	Coffee Break
	Shoreline Clean-up A look at the techniques and processes used to respond to impacted shorelines.
	Transfer by bus
	Tour of Host Organisations equipment stockpile 1 <sup>st</sup> hand look at equipment that may be used in a local response.
13.30	Lunch
	Chemical Dispersants
15.30	Coffee Break
	Waste Management Group discussions regarding the availability of waste management
17.15	End of day + Everyone needs PPE for the morning

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Wednesday 25 March 2009

09.00	Review of Previous day Lunch boxes & transport will be required
09.15	Practical Exercise all day
13.00	Lunch
	Practical Exercise all day
17.15	End of day & De - Brief on the practical exercise



## OPRC Level 1 First Responder & Trajectory Modelling

Thursday 26 March 2009

09.00	Review of Previous day
09.15	Claims & Compensation Understanding the financial implications of a spill pre & post
10.15	Tasman Spirit Case Study
11.00	Coffee Break
	Deployment Techniques Exercise
13.00	Lunch
	Termination and Monitoring of a Response
15.30	Coffee Break
	Shoreline Supervisor Roles and Responsibilities
17.15	End of day

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### Annex 2. List of participants

N	Title	Name	Function	Organisation	Email
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**Annex 3. Photos of the workshop**



**Photos of some vessels and equipment used for the practical exercise**



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**Photos of delegates getting involved during the deployment exercise**

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**Photos of press briefings, technical presentations and delegates at event**

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### **Annex 4. References**

This report has been written within the framework of an IMO and IPIECA mission, in March 2009

Report reference: E. Ogbuh, P de Susanne, 2009. OPRC Level 1 First Responder & Trajectory Modelling. 16 Pages

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