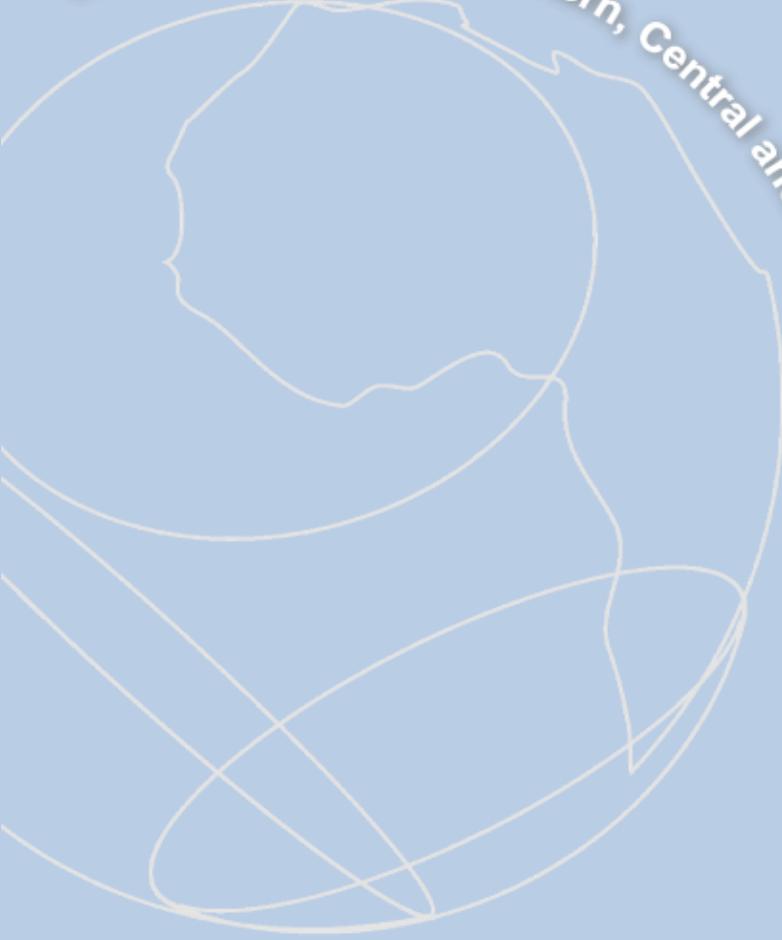


National workshop and training on Incident Management System IMS 300

Monrovia, Liberia
29th April – 2nd May 2019

Global Initiative for Western, Central and Southern Africa



Organised by:

**Liberian Maritime
Authority**



NOTE

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Executive summary

Title of the Workshop: National training workshop on Incident Management System 300 (IMS 300)

Hosted by: Liberian Maritime Authority

Venue and date: City Hall of the Liberian capital Monrovia from the 29th April through to the 2nd May

Type of event: A national training workshop on the Incident Management Systems 300 (IMS 300) was organized. The event brought together key stakeholders that have been instrumental in the development of the National Oil Spill Contingency Plan as well as representatives from government, agencies, non-government organisations, private sector and industry who could be called upon to form an Incident Management Team in the event of a major disaster in Liberian maritime waters.

Number of participants: The participants numbered around 47 and a list of delegates is attached in [Annex 2](#) of this report.

Organized by: Mr Daniel Tarr, Director, Marine Environmental Protection, Liberia Maritime Authority.

Supported by: The workshop was supported by the International Maritime Organization (IMO) and IPIECA, the global oil and gas association for advancing environmental and social performance within the framework of the GI WACAF Project.

Objectives: The aim of the IMS 300 Course is to introduce delegates to a system that enables the effective management of an unforeseen event that has a potential for significant impact or business interruption due to it expanding beyond the localized resource capability.

The general objective of the workshop was to develop an Incident Action Plan for a major escalating oil spill incident.

The specific objectives of the workshop focused on:

1. how the Command and Management component supports the management of expanding incidents;
2. the incident management process for expanding incidents as prescribed by the Incident Management System (IMS); and
3. the implementation of the incident management process on a simulated incident.

Summary: A standard IMS 300 course is designed for management personnel who may be appointed to an Incident Command Centre to assist in the management of an incident.

The course was mainly theory based with interactive sessions and exercises to assist in the learning process. This mixture of activities allowed for dialogue, discussion, enthusiasm and the sharing of knowledge from within the group. The course enabled the delegates to step in and out of the oil spill scenarios which gave a broader appreciation on how the IMS can be applied to all hazards and not just oil spills situations.



The course culminated in a table top exercise for the participants to assume and practice IMT (Incident Management Team) roles, implement the process and confirm learning. The exercise was directed toward the process rather than toward the technical elements of the incident scenario. The focus was not about compiling lots of documentation that formulates the Incident Action Plan (IAP), but more around the understanding of the evolution of the IAP and the activities required to facilitate its development.

The various stages of learning confirmation during the course and the final exercise on the last day gave a positive indication that the course had been of value to the delegates and by having a wider audience through agency participation gave more depth to the course and learning outcomes.



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Presentation of the GI WACAF Project

Launched in 2006, the Global Initiative for West, Central and Southern Africa (GI WACAF) Project is a collaboration between the International Maritime Organization (IMO) and IPIECA, the global oil and gas industry association for environmental and social issues, to enhance the capacity of partner countries to prepare for and respond to marine oil spills.

The mission is to strengthen the capability for preparedness and response to an oil spill in 22 West, Central and Southern African Countries in accordance with the provisions set out in the International Convention on Oil Pollution Preparedness, Response and Cooperation, 1990 (OPRC 90).

To achieve its mission, the GI WACAF Project organizes and delivers workshops, seminars and exercises, that aim to communicate good practice in all aspects of spill preparedness and response, drawing on expertise and experience from within governments, industry and other organizations working in this specialized field. The Project's activities are supported and facilitated by its network of dedicated government and industry focal points. Promoting cooperation amongst all relevant government agencies, oil industry business units and stakeholders nationally, regionally and internationally is a major objective of the Project.

GI WACAF is supported and funded by IMO and seven oil company members of IPIECA, namely BP, Chevron, ExxonMobil, Eni, Shell, Total and Woodside.



More information is available [on the Project's website.](#)

1. Introduction

Liberia as a coastal state is at risk from shipping activities in its maritime waters including the increased traffic to and from its four major ports. This has driven the need for further development of the National Oil Spill Contingency Plan.

In addition to the successful 2016 national workshop on Contingency Planning and Sensitivity Mapping, the recent IMS 300 training continued the positive collaboration between Liberia and GI WACAF. The first three days focused on the planning aspects of the IMS. During the fourth day, a table top exercise was conducted to confirm the learnings from the previous 3 days of training and enable the participants to experience the Planning Cycle based on a given scenario.

The participants, representing the key government ministries, agencies, authorities, non-government organizations, private sector and industry which would be involved in a response to a major maritime oil spill had the relevant background knowledge and experience to receive maximum benefit from this workshop.

2. Objectives

The general objective of the workshop was to provide an understanding of the evolution steps when developing an Incident Action Plan (IAP) for a major escalating incident for the Next Operational Period.

The specific objectives of the workshop focused on:

1. Give an overview of the evolution of the Incident Command System
2. Describe what occurs during the Emergency Phase
3. Describe the process when Transferring Command
4. Describe the Incident Assessment process
5. Give an insight in setting Objectives for the Next Operational Period
6. Understand the Planning process
7. Describe the process for developing and Incident Action Plan
8. Gain an understanding of Incident Demobilisation

3. Programme

The workshop duration was 4 days. The programme is available in **Error! Reference source not found.** and is summarised below:

- *Monday 29th April 2019*
 - Registration
 - Opening ceremony
 - Workshop Introduction
 - GI WACAF Project Introduction
 - Liberian Response Arrangements



- Safety Moment
- IMS Fundamentals
- IMS Command

- *Tuesday 30th April 2019*
 - Incident Assessment
 - The Planning Process
 - Transfer of Command
 - Initial Unified Command Meeting
 - Objectives Meeting
 - Command & General Staff Meeting
 - Strategies, Tactics Resources

- *Wednesday 1st May 2019*
 - Tactics Meeting
 - Planning Meeting
 - Incident Action Plan Preparation & Approval
 - Operations Briefing
 - Resource Management
 - Demobilisation
 - Exercise Briefing to Incident Commanders
 - Room Set Up

- *Thursday 2nd May 2019*
 - Exercise Scenario
 - Walk thorough of IAP evolution
 - Press Conference
 - Exercise Debriefing
 - Certification Award
 - Closing ceremony

4. Location, dates, and participants

The workshop was held at the Monrovia City Hall building from the 29th April to the 2nd May 2019. In attendance, there were 47 participants from various government agencies and departments and private sector:

- Liberia Maritime Authority;
- Ministry of Health;
- Ministry of Agriculture;
- Liberia Institute of Statistic & Geo System;
- Forestry Development Authority
- Golden Veroleum Liberia;
- National Public Health Institute of Liberia;
- National Port Authority;



- Liberia Coast Guard;
- Ministry of Defence;
- Ministry of Gender Children & Social Protection;
- Liberia Petroleum Refining Company;
- National Disaster Management Agency;
- Environmental Protection Agency.

The experts invited to facilitate this workshop were:

- Richard Sims, Preparedness Performance Unit Lead - Lead facilitator – Ambipar Response
- John Tulloch, Senior Consultant - Support Facilitator – Ambipar Response

The GI WACAF Secretariat was represented by:

- Emilie Canova, GI WACAF Project Coordinator

5 Activities and proceedings

5.1 Opening ceremony

The opening ceremony took place on Monday 29th April 2019 at 09.00 and consisted of several introductions and opening speeches from various dignitaries. The schedule for the opening speeches is available on page 10 of this report and the speeches are in the Annex 2,3 and 4.

The Deputy Commissioner for the Liberian Maritime Authority, Cllr Charles A. Gono Jnr provided some opening comments which have been consolidated in section 5.2 along with the opening remarks from the Director for Marine Environmental Protection, Daniel Tarr and the GI WACAF Coordinator Emilie Canova.

5.2 Proceedings of the event

The group picture was taken with additional images included in [Annex 13](#).





5.3 Presentations

DAY 1 – 29th April

Overview of the importance of Incident Management

Cllr Charles A. Gono Jnr – Deputy Commissioner – Liberia Maritime Authority

Cllr Charles A. Gono Jnr welcomed the GI WACAF delegation on behalf of the Commissioner Dr James F. Kollie and the assembled participants.

The Deputy Commissioner gave some background and history on the evolution of the Incident Management System and the initial application. He gave an insight into the ability of organizations to come together under one system to manage a major event either operating in parallel or unified with the same goal and he emphasised the importance of having clear communications, identified roles and responsibilities, command and control and achievable objectives.

Several aspects of the speech had complete synergy with the course deliverables and this only confirmed some of the elements that would be analysed in more detail during the IMS workshop.

Overview of the Liberia National Oil Spill Contingency Plan

Mr. Daniel Tarr – Director - Marine Environmental Protection - Liberia Maritime Authority

Mr. Daniel Tarr highlighted the value of the GI WACAF missions in terms of strengthening the capability and preparedness of the 22 countries across the region in accordance with the International Maritime Organization 1990 Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC 90).

Based on the previous missions, specifically the 2016 National Workshop on Contingency Planning and Sensitivity Mapping hosted by the Liberia Maritime Authority, Mr Tarr was pleased to announce with

support from the Commissioner, Dr James Kollie plans were well underway in the development of the first Liberia environmental sensitivity map for oil spill preparedness and response.

There was recognition given to those that had been instrumental in the development of the National Plan and Mr Tarr recognized and put emphasis on the need to have future workshops on specific subject matter to assist in knowledge transfer and building capability and competence.

Introduction of workshop objectives and presentation of the GI WACAF Project

Emilie Canova – GI WACAF Project Coordinator

Emilie Canova first presented the objectives and activities of the Project as well as the respective roles of IMO and IPIECA. Emilie then presented the improvements observed in the region for more than 10 years in terms of preparedness for the challenges faced against oil pollution and targets set for the 2018-19 cycle. This progress is measured by the GI WACAF project indicators, including the drafting of national plans to combat oil pollution. Finally, Emilie returned to the highlights of the GI WACAF project, with the November 2017 regional conference in Côte d'Ivoire. Emilie then presented more precisely the objectives and the progress of the workshop.

Overview of the context of the Liberia National Oil Spill Contingency Plan

Mr. Daniel Tarr – Director - Marine Environmental Protection - Liberia Maritime Authority

Mr Tarr gave a high-level overview of certain components of the National Oil Spill Contingency Plan. There was an explanation as to the scope of the plan and what it covered in terms of maritime risk. There was guidance given on the Tiered concept to give an understanding of the scale of what the plan covered. The organizational structure was discussed highlighting the strategic and operational levels and the various reporting lines, agencies that would be involved and how the structure would evolve during a major incident.

Session 1: Course & Facilitator Introduction

Richard Sims – Preparedness Performance Unit Lead

Mr Sims and Mr Tulloch introduced themselves and gave an overview of their career backgrounds and experience specifically related to oil spills and incident management.

The opportunity was passed to the participants to share their details including response experience, training and any wider incident management experience. This dialogue certainly assisted in the understanding of the depth of knowledge and general incident management experience in the room. It also enabled the ability for the instructors to leverage key stakeholders at various stages of the course to promote discussion and interaction amongst the group.

The materials that had been supplied to the delegates were highlighted specifically the Incident Management Handbook, IMO and IPIECA reference material, all of which would aid them during the first session and throughout the course.

The course logistics and agenda were highlighted along with the purpose and objectives for the training workshop. The course primarily builds on the IMS 100 and 200 the delegates were asked if they had completed the online training. It gave a good indication as to where to pitch the first session

as this was a revisit and revision of elements of the IMS 100 and 200 online material that underpin the IMS 300 training.

Module 2: IMS Fundamentals Review

Richard Sims – Preparedness Performance Unit Lead

John Tulloch – Senior Consultant

Mr Sims introduced the session on IMS Fundamentals As an introduction and as the IMS concept was relatively new to many the delegates they were firstly introduced to the key functions that sit within the Incident Management Team under IMS. This was delivered by a visual means using the coloured tabards to indicate the specific function and corresponding colour related to that functional group. This was further highlighted through an additional demonstration later in the day.

The session was delivered in an interactive way to promote the utilization of the materials given, discussion and team work. The method used was “Exercise Double Jeopardy” which consisted of a quiz whereby a panel of questions were produced via a power point application with each panel having an associated value ranging from 100 to 500. Behind each panel was a question on IMS 100 and 200.

The group were split into 5 teams and each were given an opportunity to pick a panel and verbally answer the question. If the question was answered correctly then the points were awarded, if not then the question was passed over to the next group until a correct answer was attained.

This session promoted a healthy amount of debate, research and competition between the groups and acted as a good learning opportunity for all. The session was more of a new learning rather than a confirmation of knowledge transfer, which is why explanations to each question were more expansive. All the groups were awarded a prize at the end of the session for their efforts.

Module 3: Introduction to Command

John Tulloch – Senior Consultant

Mr Tulloch delivered the Command session focusing on the 3 types of Command. At times he referred to the Liberian National framework as a comparison to give the local context. Using the audience, he demonstrated aspects of the 3 command models to help cement the learning. The benefits and challenges of each structure were discussed.

Within this session the delegates were asked in their groups to think about the qualities that they thought an Incident Commander should have and these were discussed in plenary with each having slightly different variations of opinion.

A demonstration of incident scalability was delivered through an everyday scenario that the delegates could synergize with. The scenario simplicity showed how a small-scale incident could very quickly become a major event. The utilization of the coloured tabards for specific functions and roles assisted in the understanding of the incident Tiered concept and the potential triggers for incident escalation.

The final element was around the understanding of objectives and the appreciation of the other agencies that may be involved in a major disaster and what their focus and priorities could be. The delegates were split into 5 groups and were asked to assume the roles of some interested stakeholders and to list where their interest may lie and what their objectives might be. Each group reported back in plenary their findings.

DAY 2 – 30th April

Module 4: Incident Assessment

Richard Sims – Preparedness Performance Unit Lead

Mr Sims highlighted the importance of getting the Incident Assessment right as this sets the tone for what needs to be achieved and underpins the objectives and the ultimate incident direction.

Incident complexity, limitation and constraints were discussed, and examples were given that could have the potential to change the landscape of the incident and derail an effective response. The PEAR concept was introduced to assist in developing incident objectives.

A formal process of capturing data was introduced by way of a template. Emphasis was given that all the forms and templates could be adapted and were very much selective rather than mandatory.

The emphasis on clear and concise communication was highlighted through a group exercise. Each team had to draw on a flip chart what they heard via a verbal description from a centralised colleague who had an image to describe. Each group heard the same information that was portrayed from the image provided. There was an opportunity for each team to request clarification on the information received with 2 questions per team. The images from each team were shared in plenary. The activity promoted a lot of different approaches and designs, but emphasised some key messages around the use of unfamiliar terminology, the need to use some geographical benchmarks such as north and south as a point of reference and orientation, the division and segmentation of an area and the need for the ability to listen and clarify which is vitally important in an incident and the subsequent understanding of situational awareness.

To assist with a broader understanding of incident assessment, complexities and limitations, a scenario was provided based on a natural disaster and the teams had to determine some of the associated issues that they would have to deal with beyond the realms of the incident standalone. This gave an opportunity for those that had been involved with natural and humanitarian disasters to leverage some of their own experiences, so there was certainly some synergy in the activity and scenario given for some present. The analysis from each group was shared in plenary.

As the teaching moved from the leg of the Planning Cycle, the reactive phase, to the more protracted cycle of activity and meetings the components of handover and how transfer of command is managed were discussed with a demonstration between the two facilitators on what needs to be communicated based on the scenario for the last days exercise.

Module 5: The Planning Process

Richard Sims – Preparedness Performance Unit Lead

The Planning Process was a fundamental module and core to the development of the Incident Action Plan. The module spanned the majority of the second day and into the 3rd such was the need to emphasise and focus on the process.

The transition from the leg of the “P” into the more protracted element was made with the emphasis being placed on the evolution of the IAP, which function is responsible for what task, the commencement of IMT planning activity and the cycle of meetings that facilitate the IAP development for the Next Operational Period.

The delegates in their teams were coached in how to complete the appropriate wall mounted forms that aid the IAP evolution utilising a scenario not associated with an oil spill. The focus was on the objectives given, the various strategies open to the team and the tactical application. This scenario assisted in broadening the mindset of how the system could be applied for all hazards incident management.

One of the core elements of this module was for the delegates to experience several meetings as part of the IAP preparation. The purpose of the demonstrations was to give all participants an idea of the process and for them to experience first-hand one of the lead positions within the IMT and how the meetings flow in terms of process, information transfer and meeting protocol. All the meetings were scripted, and the delegates took turns in playing one of the key roles in the 3 separate meetings.

The Planning Section Chief role was played by one of the instructors, who walked through firstly the information displayed on the wall and gave a detailed explanation on the level of detail that should be discussed in each meeting. He then facilitated each meeting bringing in the players via the predetermined scripts when appropriate.

DAY 3 – 1st May

Q&A: Clarification of Learning

Richard Sims – Preparedness Performance Unit Lead

Mr Sims introduced an interactive Q&A session utilising a power point application consisting of numbers 1-12 with each panel number having a question around IMS behind it. The questions were open to the floor to answer as they were unveiled. This assisted in understanding and clarification of the previous days learning and gave the opportunity to reaffirm anything that was not clear.

Module 5: The Planning Process continued

Richard Sims – Preparedness Performance Unit Lead

The first session finished off the Planning Process module focusing on the components that constitute the IAP and the approval process. The Planning Meeting was demonstrated with the delegates again role playing the various key positions and the instructor playing the role of the Planning Section Chief and facilitating the meeting utilising the visual aids displayed on the wall. The final element was to discuss the delivery and the messaging of the IAP to the Operations team and how this was implemented in the Next Operational Period.

Module 6: Resource Management

Richard Sims – Preparedness Performance Unit Lead

The session introduced the concept of Resource Management, how resources are tracked and the importance of having a robust procurement process. The route of how resources are ordered was demonstrated and the form that IMS uses was utilised as an aid to learning. There was an acceptance that agencies and governments have their own way of managing resource ordering, so the emphasis was more on ensuring that a system is in place rather than transferring to the system that was demonstrated.

The last activity was to look at how to set up an operational site and what resources needed to be considered. The delegates were divided into to 2 groups with an instructor with each. With the aid of laminated floor cards depicting various topographic areas of a shoreline which the instructor laid out on the floor, the delegates had to determine where certain resources should be best placed based on the beach profile specifically looking at the hot, warm, cold zones, high water mark, and beach access. Once each group had determined where the resources were to be placed the instructor then ran through each respective group analysis and provided feedback.

Module 7: Demobilisation

John Tulloch – Senior Consultant

The final formal presentation looked at Demobilisation and some of the challenges faced. The information covered the triggers, when to terminate a response and who makes the decision. The benefit of having a robust plan and who plays a part in the planning element was highlighted as was the components that make up a Demobilisation Plan.

The closeout of the incident and the importance of handing over to the business unit to continue if the response evolved into a project such as remediation was discussed with the final piece being the closeout briefing and lesson learned.

Exercise Brief: Establishing the Command Centre

Richard Sims – Preparedness Performance Unit Lead

John Tulloch – Senior Consultant

“Exercise Arcanum” was introduced to the delegates. The key learning for the exercise were emphasised as follows:

- Manage an expanding incident using the Incident Management System; and
- Understand the process involved in the Planning Cycle.

A presentation was given to highlight the importance of the fictitious Island of Catan and the surrounding marine area. The materials provided that would aid the exercise play were highlighted and distributed on the following day where applicable.

The delegates were given a briefing on the current situation by the incoming Incident Commander. Key tasks for the final afternoon period were to populate the organisation chart, determine the roles and responsibilities based on the situation given and to set up the room ready for the following days activities.

DAY 4 – 2nd May

Exercise Arcanum: Exercise Delivery

Richard Sims – Preparedness Performance Unit Lead

John Tulloch – Senior Consultant

The team assembled for a Command and General Staff Meeting with the Incident Commander and then stepped into the preparation for Tactics Meeting. Due to time constraint the decision was made to combine the Tactics and Planning meeting into one, so the Planning Section Chief worked on

blending the agenda as well as determining the participant role players who were to be present at the final combined meeting.

The focus of the exercise very much on the IMS process specifically the meeting preparation and the required activities to enable the evolution of the IAP. The team received some guidance to ensure that there was information for the combined Tactic / Planning meeting that could be messaged to the assembled team in terms of the plan for the Next Operational Period.

The “rainbow” affect was achieved during the preparation phase, but it took some time for this collaboration to become reality. The Logistics team seemed a bit remote even when guidance was provided, but this may have been partly due role unfamiliarity.

Injects or problem statements were provided to assist in the direction of the exercise and promote certain actives and actions linked to the scenario.

The team managed to complete the required information for the combined Tactics / Planning meeting. The Planning Section Chief followed the process of the combined agenda and the schedule with a few minor adjustments and interventions as the meeting did get side tracked around a couple of points. Some of the detail communicated by one of the Section Chiefs was too detailed and could have been approached more holistically.

The brief by the Operation Section Chief was clear, concise and comprehensive. There was a good use of the visual aids including the wall posters. The flow between the visual information was logical in its presentation and the technical knowledge communicated by the Operation Section Chief was well placed and technically accurate for the most part which was of great value and credit to the role player.

The Planning Section Chief was affective in managing the players, in following the process and closed the meeting with IAP approval from the Section Chiefs and the Incident Commander with the meeting lasting around 35 minutes in duration.

The continuous improvement of the delegates throughout the course was evident in the final meeting. There was a lot more confidence shown by the Planning Section Chief and he managed the process and agenda very well. The information on display was well presented and certainly assisted the Operations Section Chief in the communication of the plan.

The last part of the exercise was a facilitated Media Press Conference. Four of the delegates from the exercise IMT formed a panel located in front of other participants who role played the media. Some of the delegates were provided with prescript media questions that they could pose to the panel. The panel fielded some of the questions and provided some unscripted replies to the questions posed. This assisted in bringing the exercise to a logical closure point.

Debrief and Feedback

Emile Canova – GI WACAF Project Coordinator

The delegates were provided with an opportunity to feedback on the exercise in plenary and by way of a feedback form for the overall course experience. This information has been consolidated by the GI WACAF.

5.4 Closing Ceremony

All Dignitaries, Participants and Instructors

On behalf of IMO and IPIECA, Emilie Canova thanked the delegates for their active involvement and along with Daniel Tarr and Cllr Charles A. Gono Jnr, distributed to each participant a USB stick containing the presentations and supporting documents used during the event.

6. Recommendations

The following feedback is based on the opinions and observations of the instructors through the duration of the course.

Roles and Responsibilities

The Incident Management System (IMS) for most of the delegates was a very new concept as to how to manage an incident. It is a scalable modular system with the flexibility to expand or retract as the situation deems necessary. **If IMS is to be adopted, then there would need to be some allocation of key positions to fulfil the main roles with secondary more minor roles also allocated. At present there is a gap in competence which would need to be closed with further training focusing on functional groups and exercises.**

Section Specific Training

The training received during the IMS course gave an overview of the process and a flavour for what various roles are required to do as part of an IMT. **To give a better understanding of roles it would be advantageous to conduct some role specific training to help with the knowledge transfer and improve functionality.**

Technical Awareness

Within the room there was a lot of expertise in the more holistic process of the management of an incident using their own internal mechanisms, and some had good experience with natural disasters and pandemics. **For those that would be part of an IMT managing oil spills, there would be a need to have a more technical understanding of counter pollution in the early stages of an incident and as it evolves. A certain amount of technical knowledge and application could be gained by attending and IMO 3 Oil Spill training course.**

Cross Boundary Collaboration

There is a clear **opportunity for cross border collaboration** in terms of understanding border countries capability to deal with an expanding migratory incident that knows no boundaries. There was a point raised during the workshop around GI WACAF organising discussions and an exercise with Liberia's immediate neighbours. It is incumbent for the key stakeholders within each country to promote this opportunity.

Exercises

The NOSCP is taking shape through a lot of hard work and effort on several fronts. As part of the assurance process **there should be an exercise designed and rolled out to test aspects of the plan to ensure that it is fit for purpose.** Depending on the size and complexity of any scenario this could be used to also test the IMS structure should it be implemented. The training provided a learning platform, but only scratched the surface of what would need to be accomplished during the IAP development phase. If there is an opportunity to join an oil industry IMS exercise in the region then this should be pursued as this would build on the skills learned.

NOSCP Improvement

Whilst delivering the training the consultants undertook a quick review of the NOSCP utilising their experience in preparing oil spill contingency plans for a range of clientele including oil and gas organisations, ports and harbours, and government bodies.

In general, the plan provided a high-level overview of differing oil spill response strategies, Liberia's spill risks, how to manage the media and annual average prevailing weather and ocean conditions.

The consultants identified the following improvements that could be made by including:

- A **notification procedure** so that the Liberian Maritime Authority can be informed of an oil spill incident (including a notification form). This will also assist in spill data collection for future risk assessments;
- A **mobilisation procedure** showing how the Liberian Maritime Authority and other government departments will respond following a significant spill incident;
- A **high-level communications diagram** showing how different response organisations will interact during a response;
- **Decision flow charts** to link the response strategies for offshore and shoreline response;
- A clear **incident management organisation chart incorporating IMS** (either a single or coordinated response) and showing Liberia Maritime Authority as the lead agency with support from other government organisations.

Following the IMS training exercise, a small national oil spill contingency plan workshop, with key NOSCP document producers and consultants was held. The points mentioned above were addressed along with other issues that the delegates had developed throughout the course. The diagrams shown in Annex section were used as key discussion points and shared with the workshop participants on conclusion of the meeting.

The delegates agreed to the points and will try and incorporate some of the feedback into the next draft of the NOSCP. One of the main talking points of the workshop was how IMS needs to be clearly shown within the NOSCP as to how Liberia intends to manage an oil spill event. Examples of how it can be implemented are shown in Annex of the report. Another discussion was held regarding **Liberian Maritime Authority having a role and responsibility to approve and store oil spill contingency plans developed by Ports and oil and gas organisations.**

7. Conclusion

It was felt by all that the objectives for the training and the exercise were completed and it was beneficial for all participants.

The success of the event was confirmed by the unanimous positive feedback received from the participants who considered the objective of the workshop was met.

Annexe 1 – Programme

Day 1. Monday 29 th April 2019	
08h30-09h00	Arrival and Registration of the participants
	Opening Ceremony
09:00 – 10:00	Opening Ceremony <ul style="list-style-type: none"> - Welcome (<i>national Focal Point, Mr Daniel Tarr</i>) - GI WACAF welcoming address (<i>Ms Emilie Canova</i>) - National authority opening address <i>Cllr Charles A. Gono Jnr</i>
10:00 - 10:30	Coffee break and group photo
	Workshop introduction
10:30 – 11:15	Introductions <ul style="list-style-type: none"> - GI WACAF presentation - Course introduction (objectives, method, etc.) - Facilitators introductions - Participants introductions
11:15 – 12:00	Presentation of Liberian response arrangements and expected outcome <i>Mr Daniel Tarr, National focal point</i>
12:00 – 13:30	Lunch Break
13:30 – 15:00	Introduction to IMS IMS fundamentals <ul style="list-style-type: none"> - Interactive Q&A knowledge development exercise <i>Mr Richard Sims and Mr John Tulloch</i>
15:00 – 15:30	Coffee break
15:30 – 17:00	Safety Moment IMS Command <ul style="list-style-type: none"> - Objectives exercise <i>Mr Richard Sims and Mr John Tulloch</i>
	End of day 1

Day 2. Tuesday 30 th April 2019	
	Welcome
09:00 – 10:30	Incident Assessment - Communications exercise <i>Mr Richard Sims and Mr John Tulloch</i>
10:30 – 11:00	Coffee Break
11:00 – 12:30	Planning Process (the planning P) <i>Mr Richard Sims and Mr John Tulloch</i>
12:30 – 13:30	Lunch Break
13:30 – 15:00	Planning process (the planning P) - Objectives strategies and tactics exercise <i>Mr Richard Sims and Mr John Tulloch</i>
15:00 – 15:30	Coffee Break
15:30 – 16:30	Planning (the planning P) continued <i>Mr Richard Sims and Mr John Tulloch</i>
	End of day 2

Day 3. Wednesday 1st May 2019

	Welcome
09:00 -09:30	Morning question and answer session on lessons learned <i>Mr Richard Sims and Mr John Tulloch</i>
09:30-11:00	Resource Management - Site set-up exercise <i>Mr Richard Sims and Mr John Tulloch</i>
11:00 -11:30	Coffee break
11:30 – 12:30	Demobilisation <i>Mr Richard Sims and Mr John Tulloch</i>
12:20 - 13-30	Lunch break
13:30 - 15:00	Exercise brief the next session Establishing the command centre <i>Mr Richard Sims and Mr John Tulloch</i>
15:00 -15:30	Coffee break
15:30 -17:00	Arcanum Exercise <i>All</i>
	End of day 3

Day 4. Thursday 2 nd May 2019	
	Welcome
09:00 -10:30	Arcanum Exercise <i>All</i>
10:30 -11:00	Coffee break
11:00 – 11:45	Arcanum Exercise Debrief <i>Mr Richard Sims and Mr John Tulloch</i>
11:45 – 12:30	Recommendations / How to include IMS in the NOSCP <i>All</i>
12:20 - 13-30	Lunch break
13:30 - 15:00	Course feedback Certificates and closing ceremony <i>All</i>
15:00 -15:30	Coffee break
	End of day 4

Annexe 2 - List of participants

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Annex 3: Opening speech from Mr Daniel Tarr, Director Marine Environmental Protection

Inaugurated in 2006, the Global Initiative for West, Central and Southern Africa (GI WACAF) Project is a collaboration between the International Maritime Organization (IMO) and IPIECA, the global oil and gas industry association for environmental and social issues, to enhance the capacity of partner countries to prepare for and respond to marine oil spills.

The mission is to strengthen the capability for preparedness and response to an oil spill in 22 West, Central and Southern African Countries in accordance with the provisions set out in the International Convention on Oil Pollution Preparedness, Response and Cooperation, 1990 (OPRC 90).

To achieve its mission, the GI WACAF Project organizes and delivers workshops, seminars and exercises, that aim to communicate good practice in all aspects of spill preparedness and response.

Liberia as a coastal State with about 570 kms of coastline with four major ports and an increase in shipping activities in its waters has taken a giant step in developing a National Oil Spill Contingency Plan.

Thus, in August 2016, a national workshop on Contingency Planning and Sensitivity Mapping was hosted by the LiMA at the Monrovia Regional Maritime Rescue Coordination Centre (MRMRCC) within the framework of the IMO GI WACAF Project. Delegates from different ministries and agencies including representatives from the private sector fully participated in the workshop. The General objective of the workshop was to develop the National Oil Spill Contingency Plan (NOSCP) of Liberia and to train participants on oil spill sensitivity mapping.

Today I am pleased to announce that with the tremendous and steadfast support from Dr. James F. Kollie, Jr., the Honourable Commissioner of the Liberia Maritime Authority, plans are well underway to develop Liberia's first ever environmental sensitivity map for oil spill preparedness and response. Thanks very much Dr Kollie for your visionary and result oriented leadership.

In order to validate and operationalize its contingency plan, Liberia in partnership with the IMO GI WACAF project is again hosting the workshop Incident Management System for oil spill response. Indeed, to promote effective and quick coordination during an oil spill, an Incident Management System workshop is all the more necessary as an IMS provides a framework for managing emergency and non-emergency events.

We at GI WQCAF are keen to deliver more training and workshops for Liberia. These include workshops in the Use of Dispersants, and Net Environmental Benefit Analysis (NEBA), Tabletop exercise to test the National Oil Spill Contingency Plan with elements of the IMS and NEBA, workshop on Waste Management and Oil Spill Modelling.

Finally, I welcome all participants to the workshop. It is hoped that after this workshop we will all understand the essence of effective and rapid collaboration in the event of an oil spill anywhere in our waters and along our coast.

Annex 4: Opening speech from Emilie Canova GI WACAF Project Coordinator

Counsellor Charles A. Gono, Deputy Commissioner of the Liberia Maritime Authority and IMO Focal Point,

Mr. Daniel Tarr, Director of the Marine environment protection department of Liberia maritime authority,

Captain Samuel M. Lynch, Director of the Maritime security department of Liberia maritime authority,
Distinguished delegates,
Ladies and Gentlemen,

It is an honour for me to deliver this opening speech on behalf of the International Maritime Organization (IMO) and IPIECA, the global oil and gas association for environmental and social issues. I would like to welcome all of you to this national training on Incident Management System (IMS) 300, organised under the framework of the Global Initiative for Western, Central and Southern Africa (GI WACAF).

The GI WACAF project was established in 2006 and aims in strengthening the capacity of countries to prepare for and respond to oil spills through the promotion of public-private cooperation. Today it covers 22 countries in West, Central and Southern Africa. Since its inception, significant progress has been made in improving spill response capabilities by raising awareness through national and regional workshops and training.

I would like here to acknowledge the engagement of Liberia in the GI WACAF Project. The collaboration between the Liberian government and GI WACAF is not new by any means, and I would like to recall a few steps taken together:

Beyond the attendance of GI WACAF Regional Conferences by the national Focal point,

- in 2010, a first National Workshop for the Development of the National Contingency Plan was organised; and more recently
- in 2016 a National Workshop on Contingency Planning and Sensitivity Mapping was held in Monrovia, which recommended to further include IMS in the NOSCP,
- and finally, in 2017 IMO and GI WACAF Focal points attend the sub-regional workshop in Namibia on shoreline response.

The present workshop gathering us this week is thus a continuity of our joint effort. During the upcoming four days, we will focus on the planning aspects of the IMS. The latter, as you know, improves the efficiency, effectiveness and management of emergency response operations for both governments and industry alike. Consequently, it is a key element in minimizing environmental and socio-economic impacts of oil spills, a common objective we all pursue. We will thus build upon the advancements already achieved by the Government of Liberia and consolidate the knowledge acquired in recent years. The Workshop will be facilitated by two consultants who are experts in the field of oil spill preparedness and response, namely Richard Sims and John Tulloch from Ambipar.

I would like to encourage you to participate actively during the Workshop and interact with the experts as much as possible. Given your respective areas of responsibility, you all play a significant role in the national preparedness and response system, as well as in advancing your country's interests and obligations in preparing for and responding to oil spills, and this week is a perfect opportunity to do so.

Before ending my speech, I would like to thank the Liberia Maritime Authority for facilitating this workshop. I would also like to convey a special note of appreciation to Counsellor Charles A. Gono Deputy director and IMO Focal point, who on behalf of Dr. James F. Kollie, Commissioner/CEO of the Liberia Maritime Authority kindly came here to welcome the participants, and of course to Mr Daniel Tarr, Director of the Marine environment protection and GI WACAF Focal Point, for their support in organising this activity.

Thank you for your kind attention, and I wish you all a successful workshop and I look forward to the forthcoming discussions over the coming four days.

Annex 5: Opening speech from Cllr Charles A. Gono Jnr

Distinguished experts, Emilie Canova, Richard Sims and John Tulloch,
Distinguished participants,
Members of the Fourth Estate,
Ladies and Gentlemen,

It is an honour to welcome you all on behalf of Dr. James F. Kollie Commission of Liberia Maritime Authority. To this all-important Oil Spill Incident Management Workshop organised by GI WACAF. My appreciations go to Emilie Canova, Richard Sims and John Tulloch for honouring our request to organise this very important workshop. Welcome to Liberia and I promise you a wonderful stay in the beautiful city of Monrovia.

The principals of the Incident Management System (IMS) organisation were developed in the 1970s by the fire service as a management method for clarifying command relationship and making use of mutual aid for large scale incidents involving multiple stakeholders. Although originally developed to address fires, the IMS concept is now applied to many other types of emergency events or incidents, including oil spill response.

Incident management system is absolutely important because many incidents happen with little or no advanced warning and requires an immediate response by the industry operator and supporting response organisations. Major incidents, which are rare, may require a response involving many organisations including governmental entities across multiple jurisdictions and experts from many disciplines. Such incidents may also involve numerous parallel activities such as search and rescue, ensuring the safety of the public and responders, source control, fire suppression, protecting the environment, securing property and infrastructure from damage, and providing timely communications.

A wide range of response organisations and contractors, governmental entities and resources may be called on to respond to incidents, and their missions and procedures may vary. The coordination of, and collaboration between, these organisations is critical to an effective response operation. These groups and individuals must be able to work together at short notice, and may have little or no prior experience of collaborating with each other to manage stressful, dangerous and evolving problems in what may be a hazardous working environment. Responders will need to cultivate a working trust with one another, have clear roles, responsibilities and authorities and, and ensure that sufficient on scene resources are available at all times.

Incident management requires the ability to establish command and control that move the management of the response from the initial reactive mode to one where the scope of the incident is understood, appropriate response is being taken in alignment with the response strategies, and where the outcome of the incident is being driven by clear objectives to protect people and the environment. An IMS facilitates the implementation of the planning process necessary to ensure a direct link between the incident management objectives and response action being taken in the field.

Incident responders face many other potential challenges in responding effectively to major incidents. Factors such as weather, site access, resource constraints, poor coordination, lack of pre-approvals for response strategies or poor communications can delay response times or hinder incident response efficiency. A delayed or ineffective response can result in unnecessary impact which may present risks to people, the environment and property.

Therefore, an Incident Management System is an essential tool for overcoming many of these challenges; it provides clarity in command and control, improves resource coordination communications, and facilitates the co-operation and integration of responding organisations.

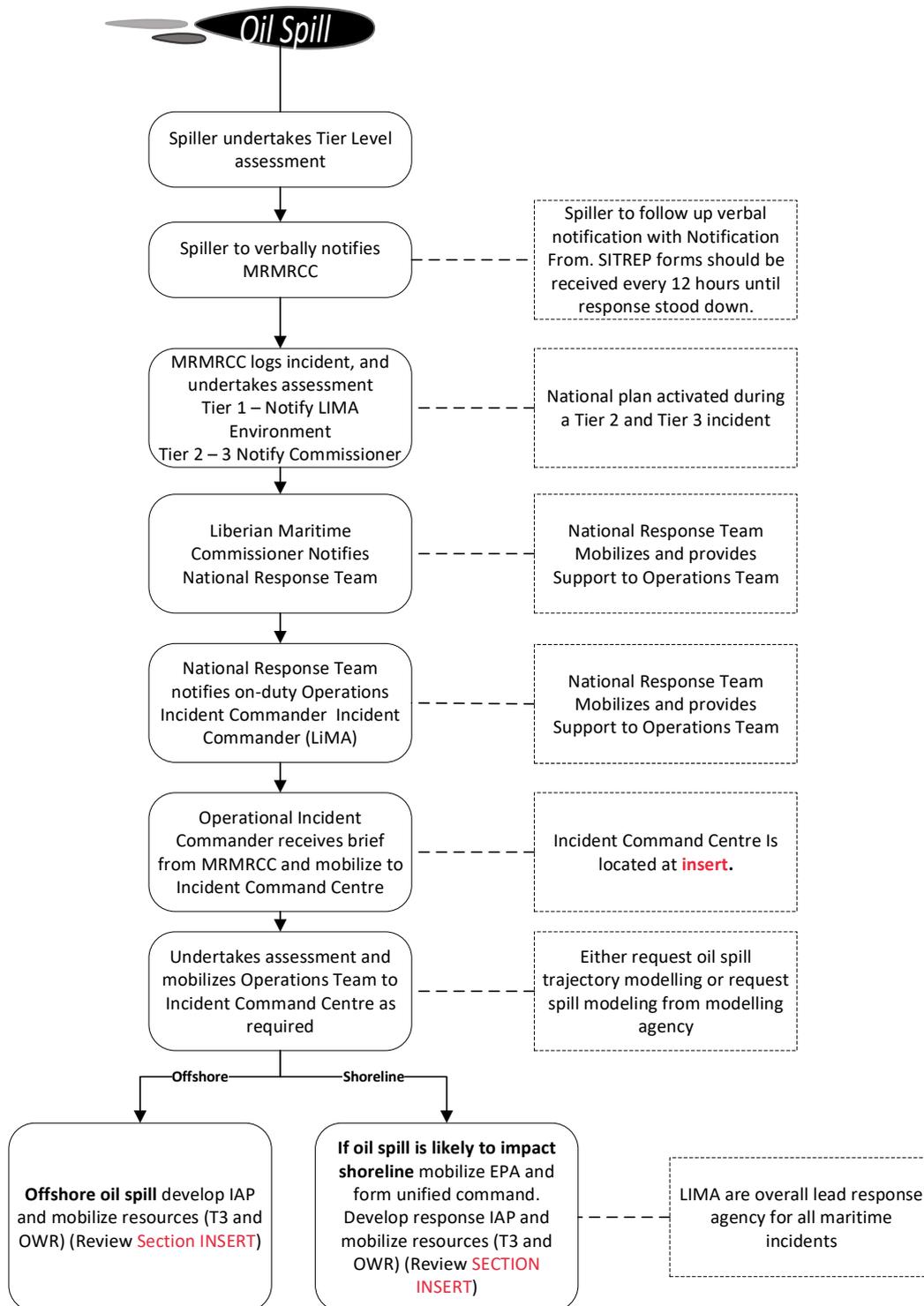
An effective and successful response requires a clear set of objectives. The objectives should be based on the “SMART” principle. They should be:

- **S**pecific
- **M**easurable
- **A**ction orientated
- **R**ealistic
- **T**imely

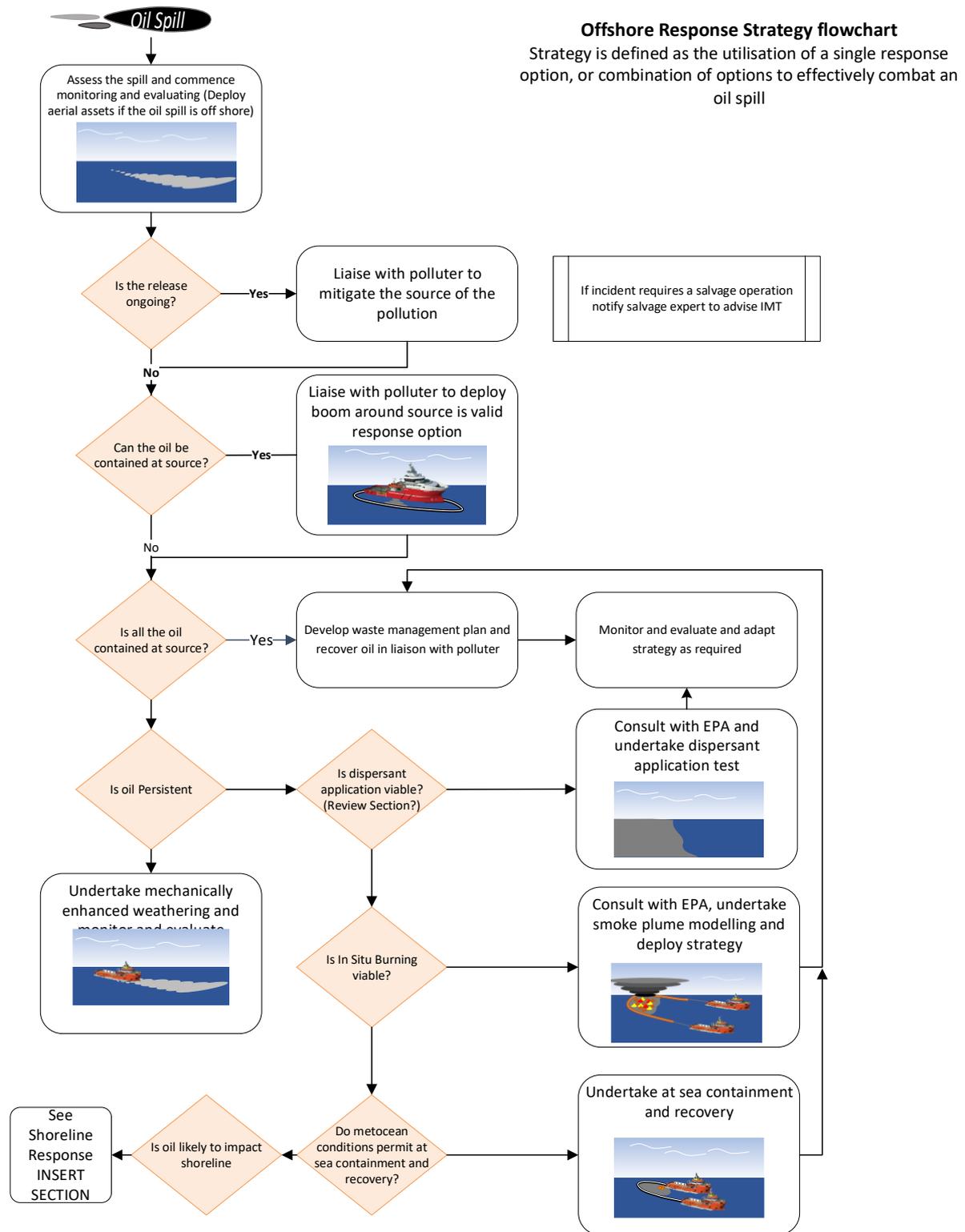
The size and complexity of every incident is different and will vary as the incident response progresses. An IMS provides an organisational structure for response teams to expand or contract to meet the needs of the required response.

Annex 6: Notification and Mobilisation

National Oil Spill Notification and Mobilization Procedure
For discussion with other Government Organizations

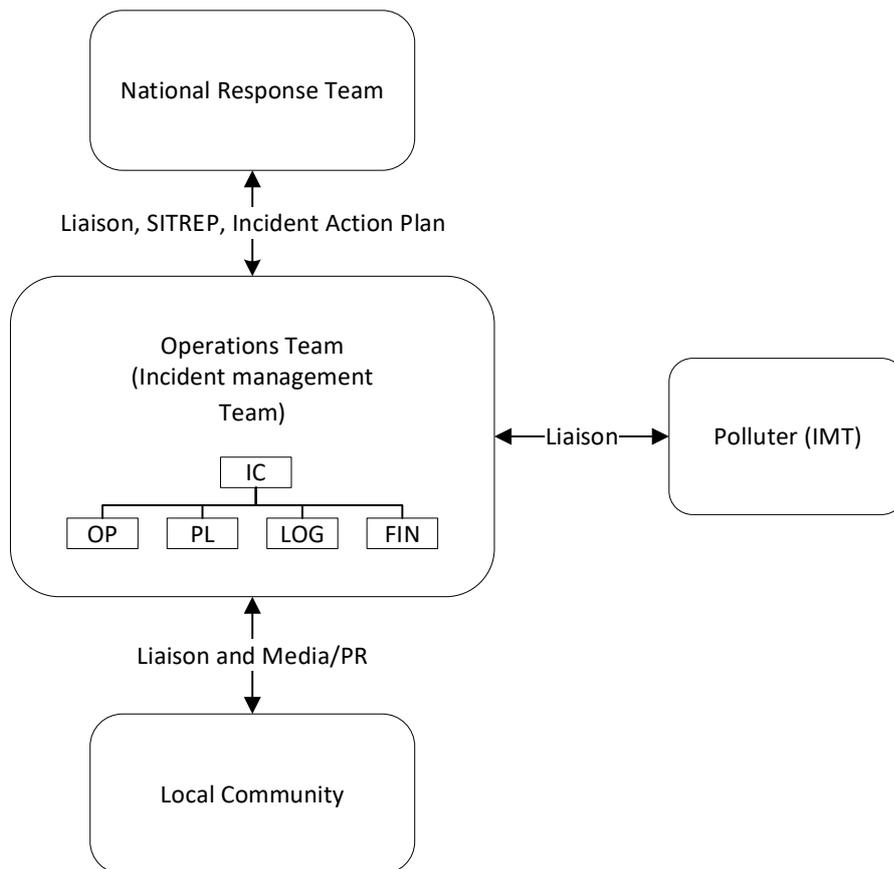


Annex 7: Response Strategy Flowchart – Offshore



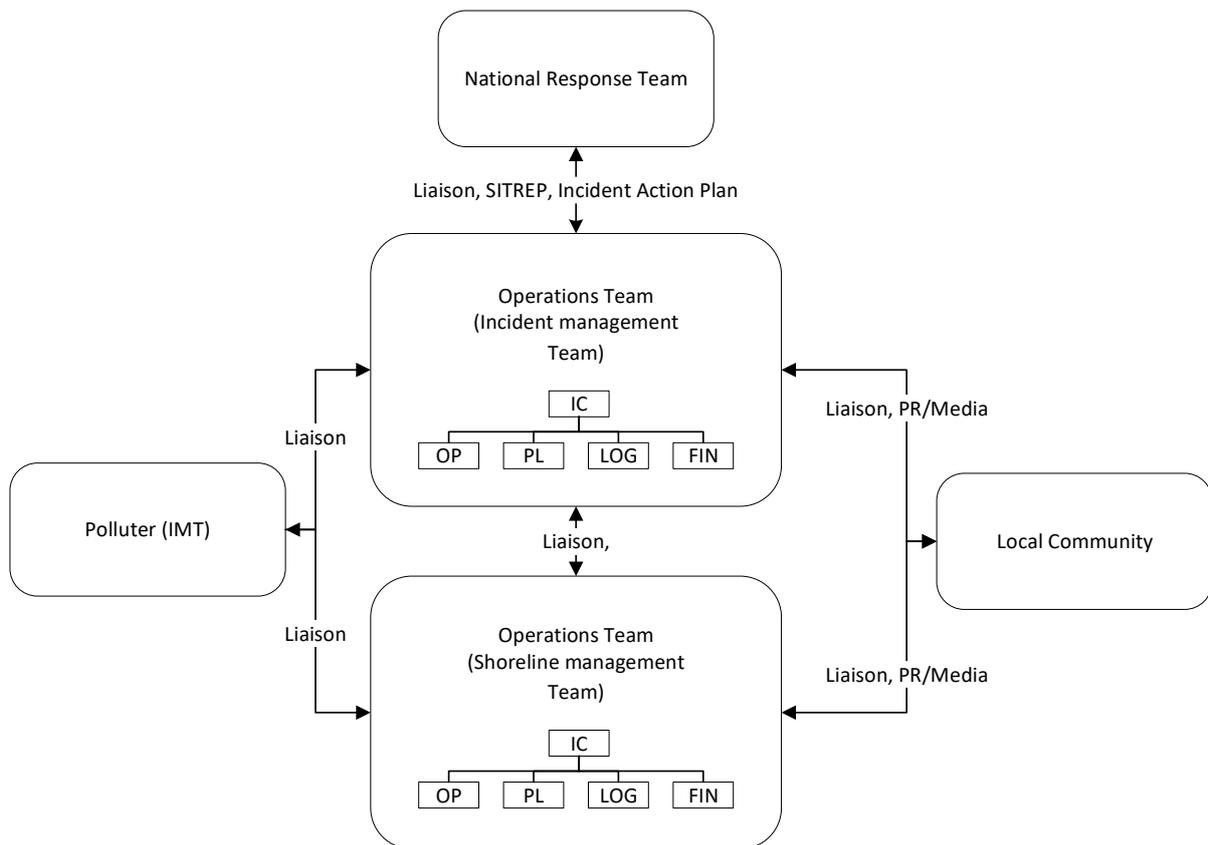
Annex 8: Communications

High level Communications Diagram During an Oil Spill - Options



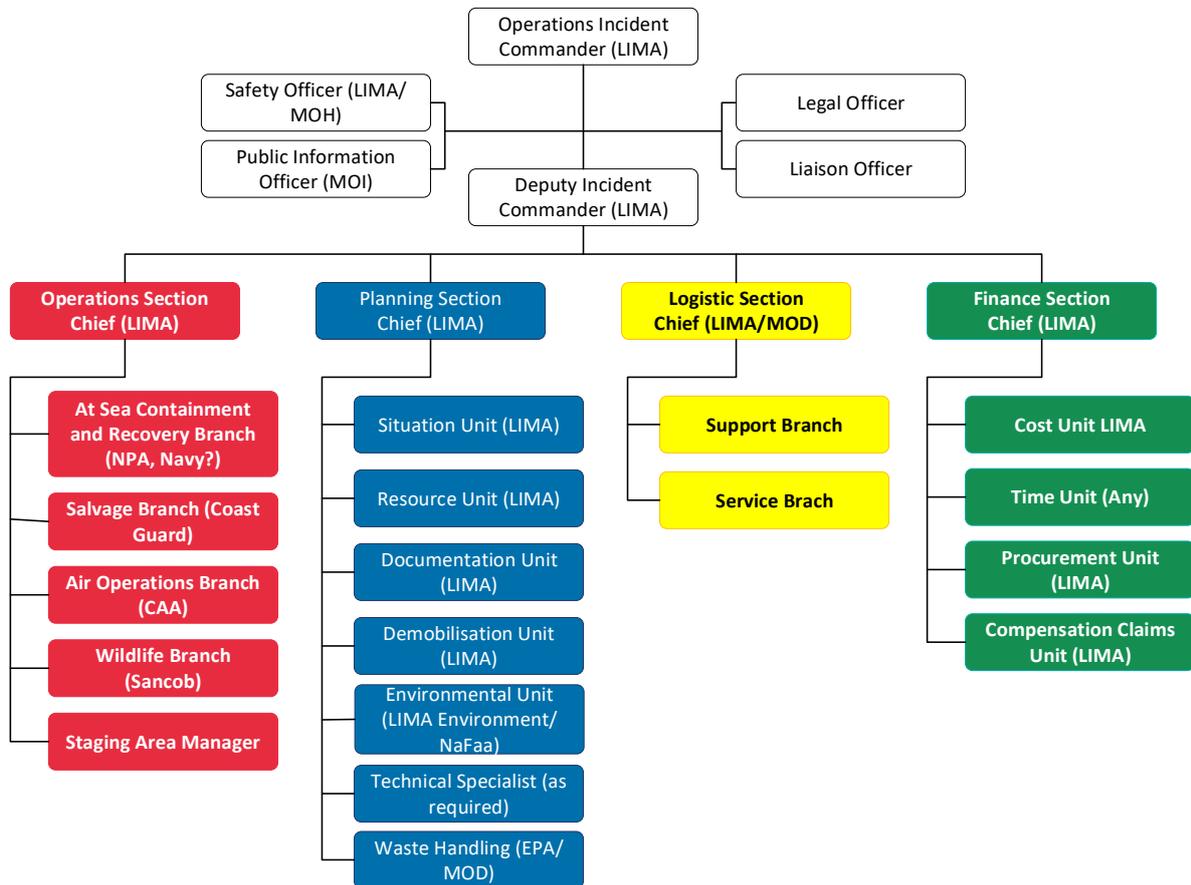
Annex 9: Coordinated Response Communication

High level Communications Diagram
During an Oil Spill - Options – Co-ordinated response option



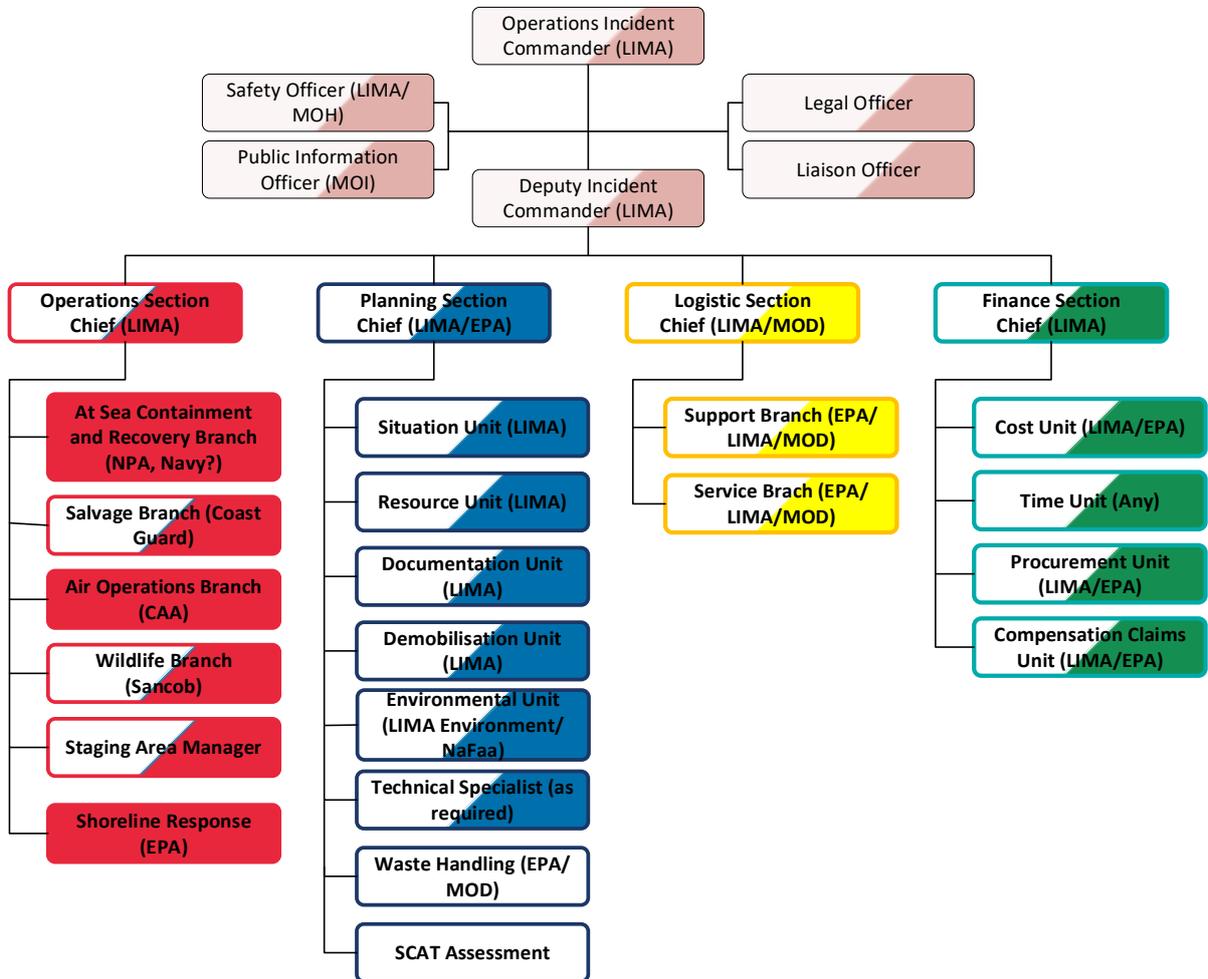
Annex 10: Example of a Single Command

Single Command at Sea Response

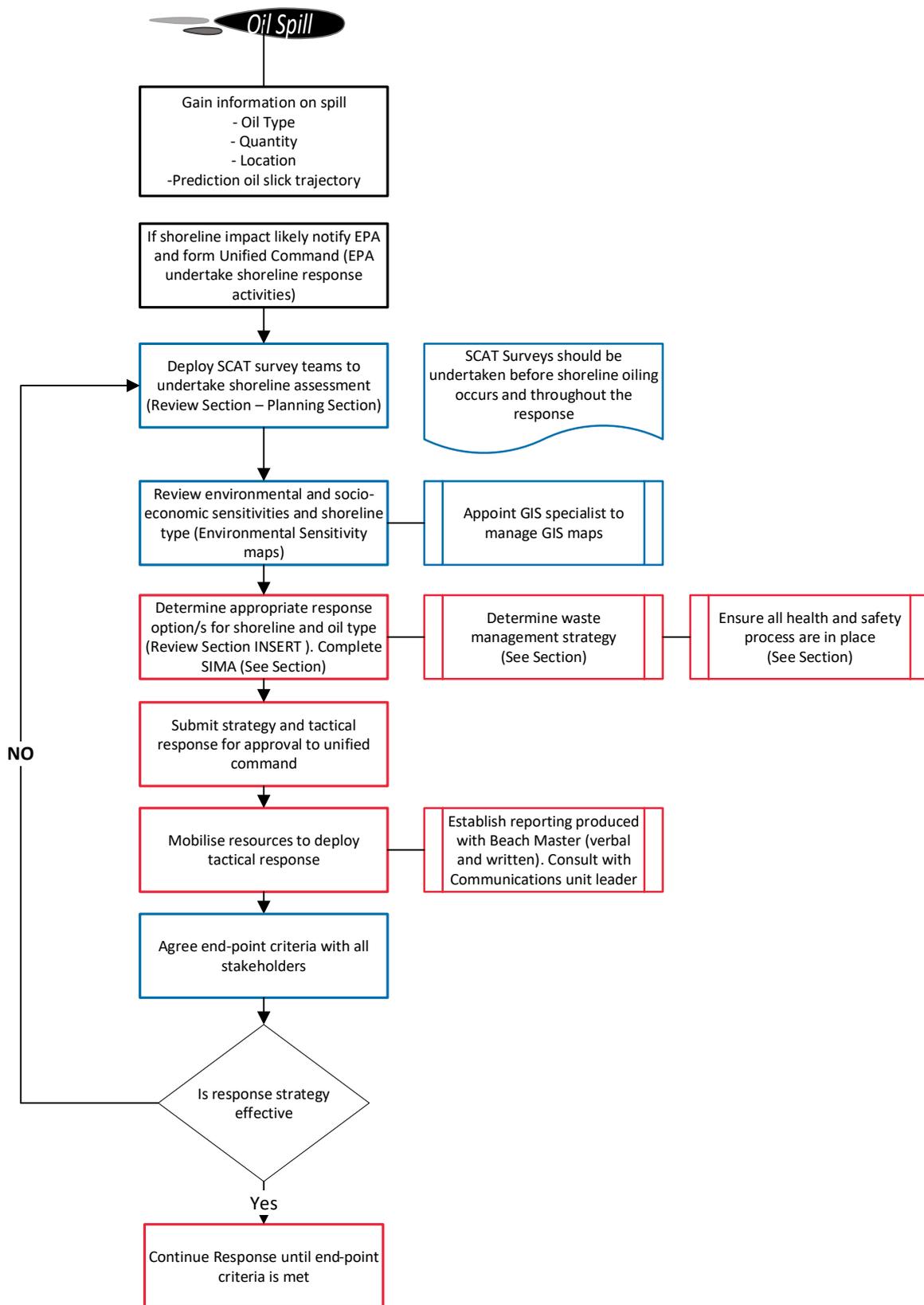


Annex 11: Example of a Unified Command

Unified Command with EPA during shoreline at Sea Response



Annex 12: Incident Assessment – SCAT



Annex 13: SCAT Decision Matrix

Shoreline Clean-up Technique Decision Chart												
Types of Shoreline (and environmental sensitivities index category)	Response Technique											
	Debris Recovery	Natural Recovery	Mechanical recovery using pumping and vacuum equipment	Mechanical In-Situ Substrate Washing	Mechanical recovery using plant machinery	High Volume Low Pressure cold water flushing	High Pressure Washing	Manual Clean-up	Surf Washing	Sorbents	Protection booming and deflection / collection booming	Trilling / Harrowing / Ploughing
Exposed Rocky Shores (ESI 1A)	Red	Green	Yellow	Red	Red	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Red
Exposed Solid Man-Made (ESI 1B)	Red	Green	Green	Red	Green	Yellow	Green	Green	Red	Yellow	Green	Red
Exposed Rocky Platforms (ESI 2A)	Yellow	Green	Yellow	Red	Yellow	Yellow	Red	Green	Yellow	Yellow	Green	Green
Fine-Medium Sand Beaches (ESI 3A)	Green	Yellow	Green	Red	Green	Green	Red	Yellow	Yellow	Yellow	Green	Green
Scarps And Steel Slopes In Sand (ESI 3B)	Red	Yellow	Yellow	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red
Course Sand Beaches (ESI 4)	Green	Yellow	Yellow	Green	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Yellow	Yellow
Mixed Sand And Gravel (ESI 5)	Red	Yellow	Yellow	Yellow	Yellow	Green	Red	Green	Yellow	Yellow	Yellow	Yellow
Gravel Beaches (ESI 6A)	Red	Yellow	Yellow	Red	Yellow	Green	Red	Green	Yellow	Yellow	Yellow	Yellow
Rock Armour Sea Defence And Gravel Beaches (ESI 6B)	Green	Green	Yellow	Red	Red	Green	Yellow	Green	Yellow	Yellow	Yellow	Red
Exposed Tidal Flats (ESI 7)	Red	Green	Red	Red	Red	Yellow	Red	Yellow	Yellow	Yellow	Green	Yellow
Sheltered Scarps And Rocky Shores (ESI 8A)	Green	Green	Red	Red	Red	Yellow	Red	Red	Yellow	Yellow	Yellow	Red
Sheltered Solid Man-Made Structures (ESI 8B)	Yellow	Yellow	Green	Red	Yellow	Yellow	Green	Yellow	Red	Yellow	Yellow	Red
Sheltered Riprap (ESI 8C)	Yellow	Green	Yellow	Red	Red	Yellow	Green	Yellow	Red	Yellow	Yellow	Yellow
Sheltered Rocky Rubble Shores (ESI 8D)	Yellow	Green	Yellow	Red	Red	Yellow	Yellow	Yellow	Red	Yellow	Yellow	Yellow
Sheltered Tidal Flats (ESI 9A)	Red	Green	Yellow	Red	Red	Green	Red	Yellow	Red	Yellow	Green	Red
Vegetated Low Banks (ESI 9B)	Green	Green	Red	Red	Yellow	Yellow	Red	Red	Red	Yellow	Green	Red
Salt And Brackish Water Marshes (ESI 10A)	Red	Green	Red	Red	Red	Green	Red	Yellow	Red	Yellow	Green	Red
Freshwater Marshes (ESI 10B)	Red	Green	Red	Red	Red	Green	Red	Yellow	Red	Yellow	Green	Red

● Preferred ● Possible ● Avoid

Annex 14: Pictures



Annex 15: Reference Material

1. IPIECA/IOGP Joint Industry Project technical documentation

All Good Practice Guides can be found on the following page:

<http://www.oilspillresponseproject.org/>

2. ITOPF's Technical Information Papers (TIPs):

All TIPs can be found on the following page:

<http://www.itopf.com/knowledge-resources/documents-guides/technical-information-papers/>

3. IOPC Funds documentation

All IOPC Funds documentation can be found online on the following link:

<http://www.iopcfunds.org/publications/iopc-funds-publications/>

4. IMO Published Documentation

All IMO documentation can be purchased from the following link:

<http://www.imo.org/en/Publications/Distributors/Pages/default.aspx>