

11th Chemical Process Safety Sharing (CPSS)

Challenges of Oil Spill Response at SCGC's Tank Terminal

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Contents



● History of Spill Incident

● Challenges of oil spill preparedness

● SCGC Emergency management readiness

● Key
Takeaway

● Q &
A

History of Spill Incident since 1970 - 2022

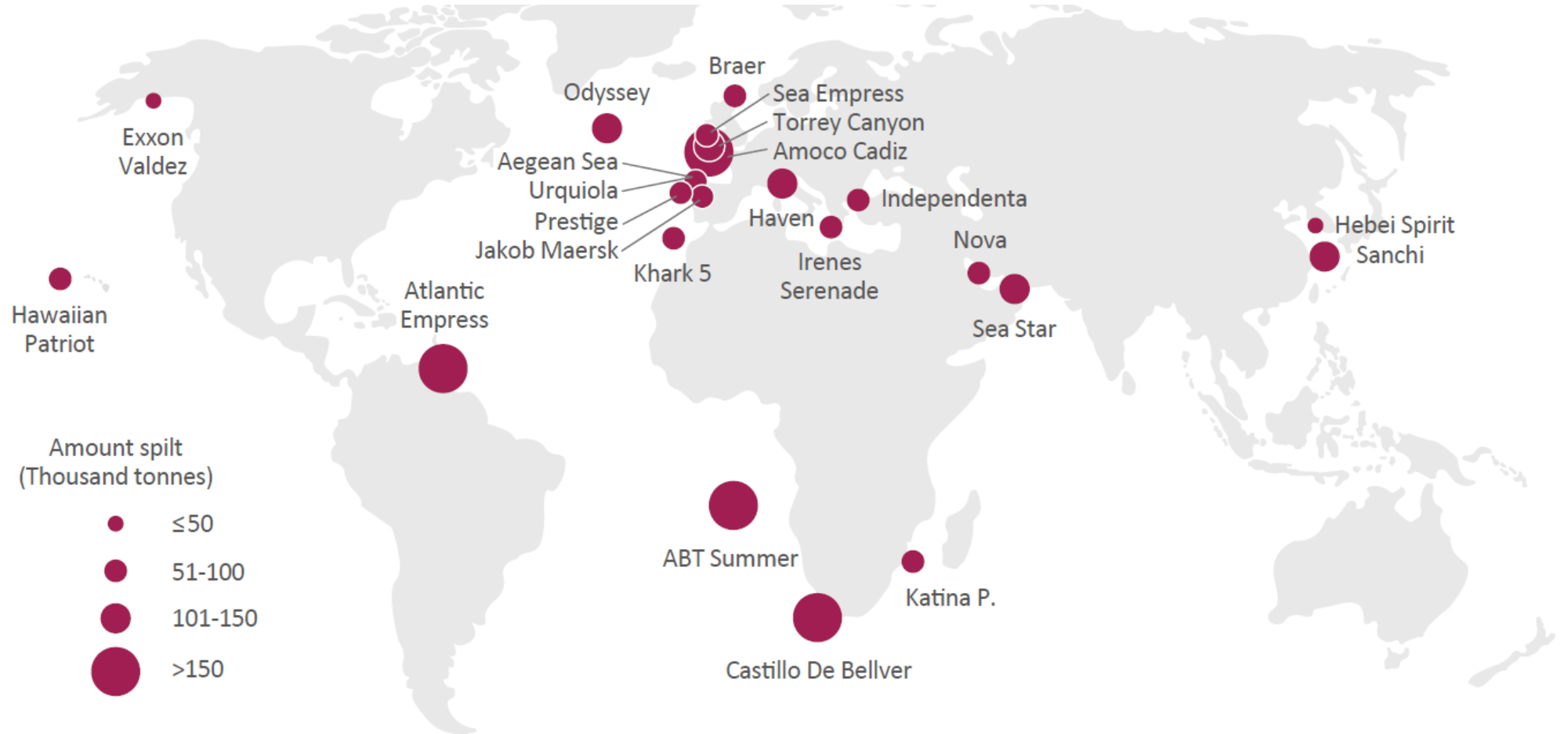


Figure 1: Location of top 20 major tanker spills (All rights reserved © ITOPF)

History of Spill Incident since 1970 - 2022

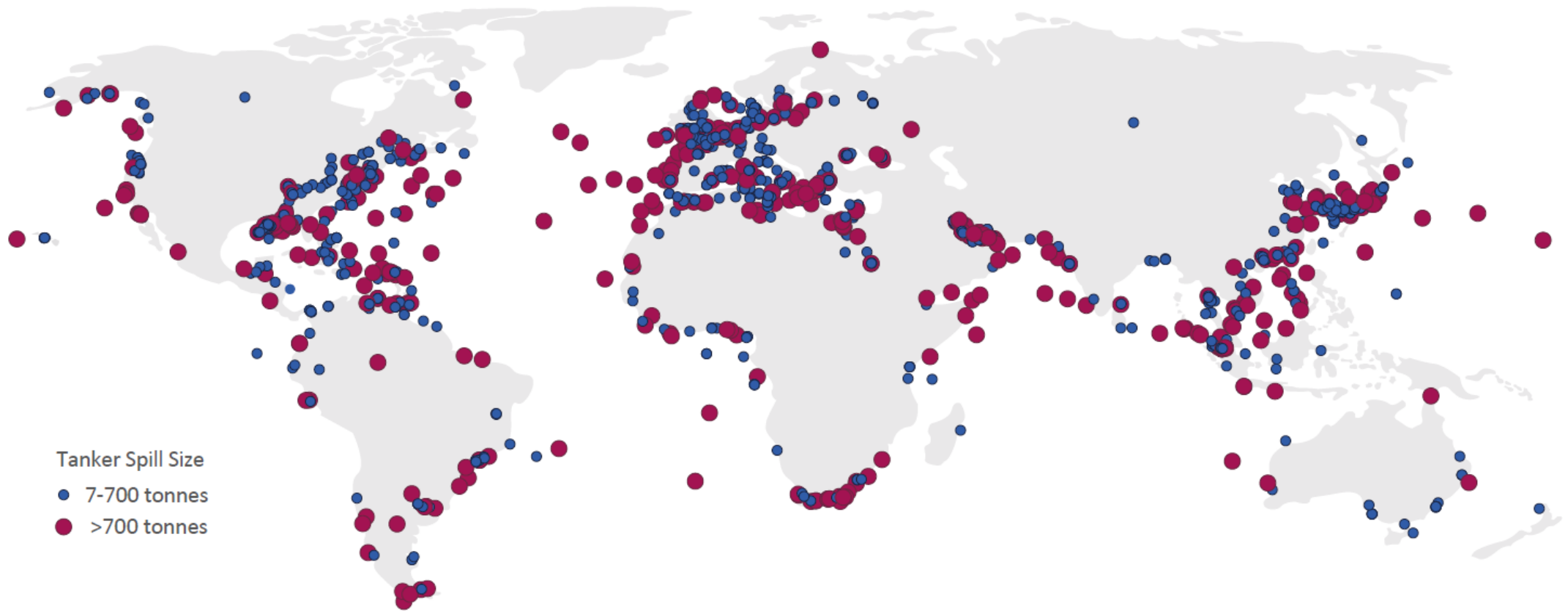


Figure 3: Map of tanker spills (>7 tonnes) from 1970-2022 (All rights reserved © ITOPF)



Pipeline Leak - Liverpool Bay

- 106 responder days
- Incident Command Support
- Provided technical advice on surveillance, modelling, SCAT, shoreline cleanup and offshore containment and recovery.

Vessel Collision - Gibraltar

- 237 infield responder days
- Dispatched shoreline, offshore and storage equipment.
- Provided Tier 1 and support for Tier 2 response in offshore and shoreline activities along with IMT support with strategies.

Rupture during vessel offloading due to aftershock waves from a seismic event - Peru

- 454 infield responder days
- Assisted in the IMT Structure
- Conducted SCAT assessments
- Liaison with government officials
- Advice on response strategies
- Training for infield responders

Terminal Spill - Gabon

- 37 responder days
- Assisted the Incident Management Team with Incident Action Plan and supporting the clean-up

Historic Wreck - Dover Straits

- 76 infield responder days
- Incident Command Support
- Conducted SCAT surveys, provided training and remained shoreline ready to support with equipment.
- Maritime Robotics Aerostat deployed

Contamination of the effluent process areas - Humber Estuary

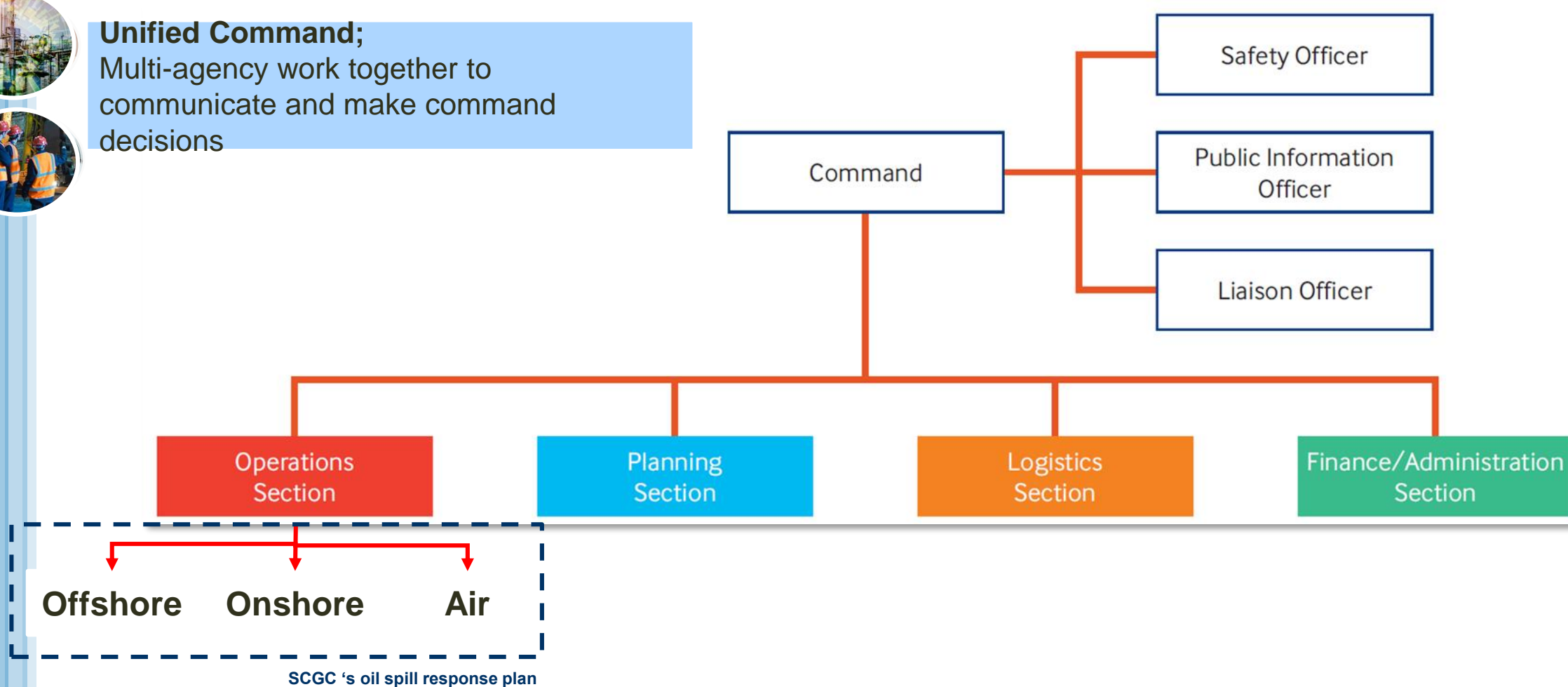
- 34 responder days
- Advised on response strategies, techniques, and endpoints in addition to aiding the recovery of hydrocarbons from settling ponds and storage tanks.

Spill from single point mooring facility - Thailand

- 29 responder days
- Remote technical advice on response strategies for shoreline impact, surveillance, modelling and visualisation.

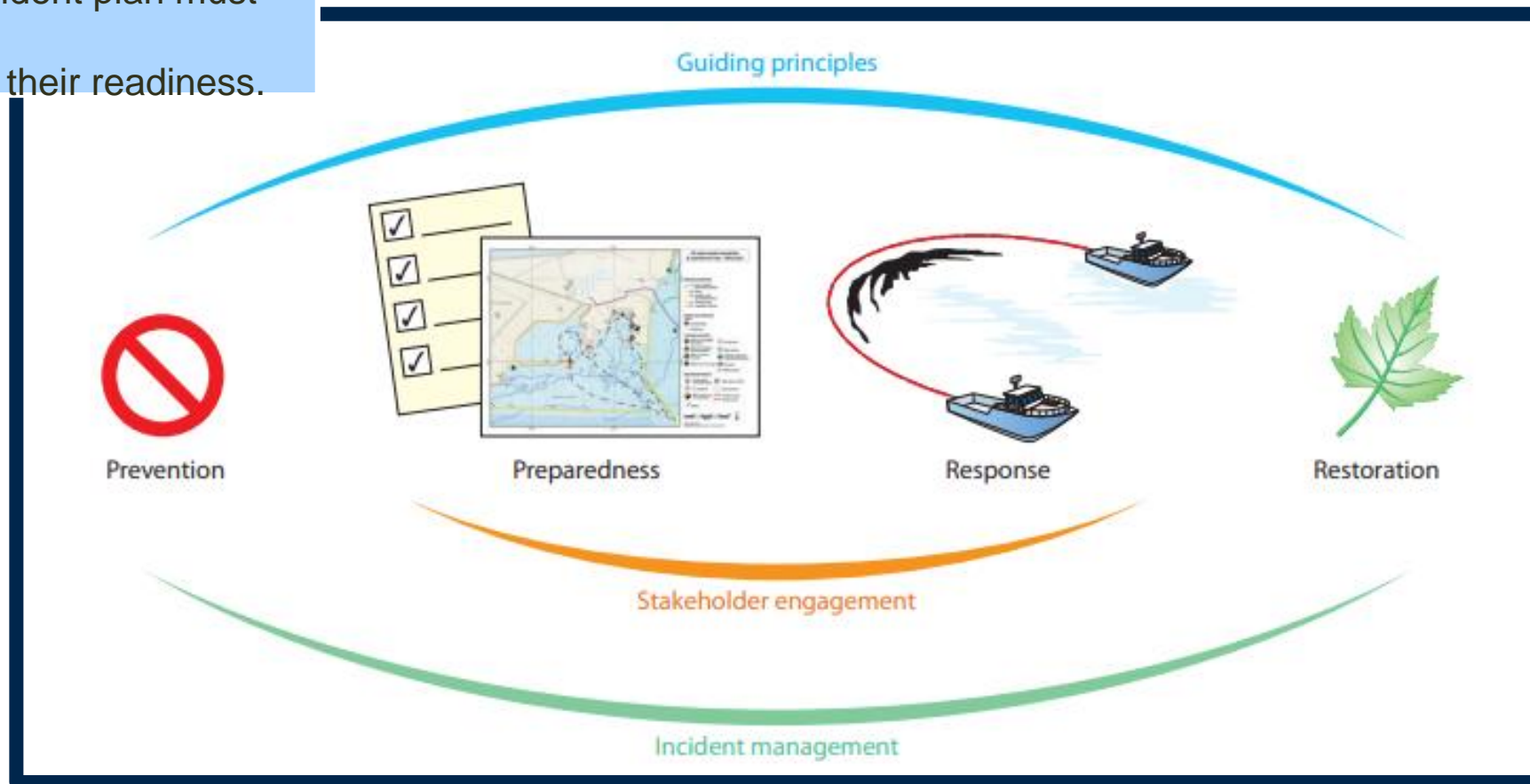


Unified Command;
Multi-agency work together to communicate and make command decisions





Oil spill response plan;
Pre-/ during/ Post-incident plan must be prepared and ensure their readiness.





Challenges of oil spill preparedness

Chapter 3: Oil Spill Exercise - Design

Core Objective & activity makes all agencies could develop their own consistent with the core exercise.

DESIGN OF EXERCISE

- APPOINT TEAM: COMPANY/ ASSOCIATION/ GOVERNMENT
- SET OBJECTIVES/ SCOPE: OFFSHORE/ ONSHORE/ AERIAL
- SETS OUT THE TIMETABLE
- REVIEW EXISTING INFORMATION



Objective prioritization:

People >> Environment >> Asset >> Reputation



Challenges of oil spill preparedness

Chapter 3: Oil Spill Exercise - Develop

Knowledge sharing and networking session will make all agencies working together very well

DEVELOP SCENARIO AND TRAINING

- IDENTIFY AREA AND GROUP OF PEOPLE
- PREPARE MATERIAL: ADMINISTRATION & OPERATION
- TRAINING
- TABLETOP EXERCISE



Photo reference: Rayong Oil Spill Exercise 2022





Challenges of oil spill preparedness

Chapter 3: Oil Spill Exercise - Conduct

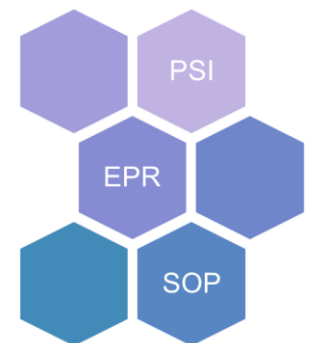
Clear of scenario, R&R, and communication could make smoothly exercise.

CONDUCT THE EXERCISE

- BRIEFING
- PLAYING
- EVALUATING
- CONCLUDING PLAY



Photo reference: Royal Thai Navy Oil Spill 2022



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Challenges of oil spill preparedness

Chapter 3: Oil Spill Exercise - Review

Learning from the exercise and improve could fulfill the gap of oil spill response plan



AFTER-ACTION REPORT

- DATA COLLECTING
- DEBRIEF
- EVENT ANALYSIS
- RECOMMENDATION

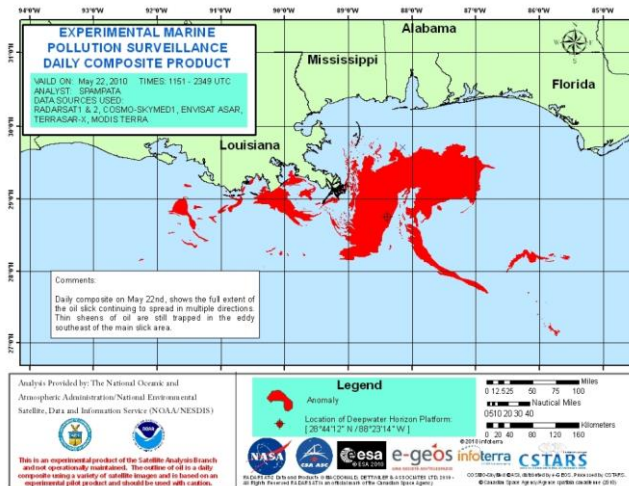


Photo reference: Deep Water Horizon Oil Spill Incident



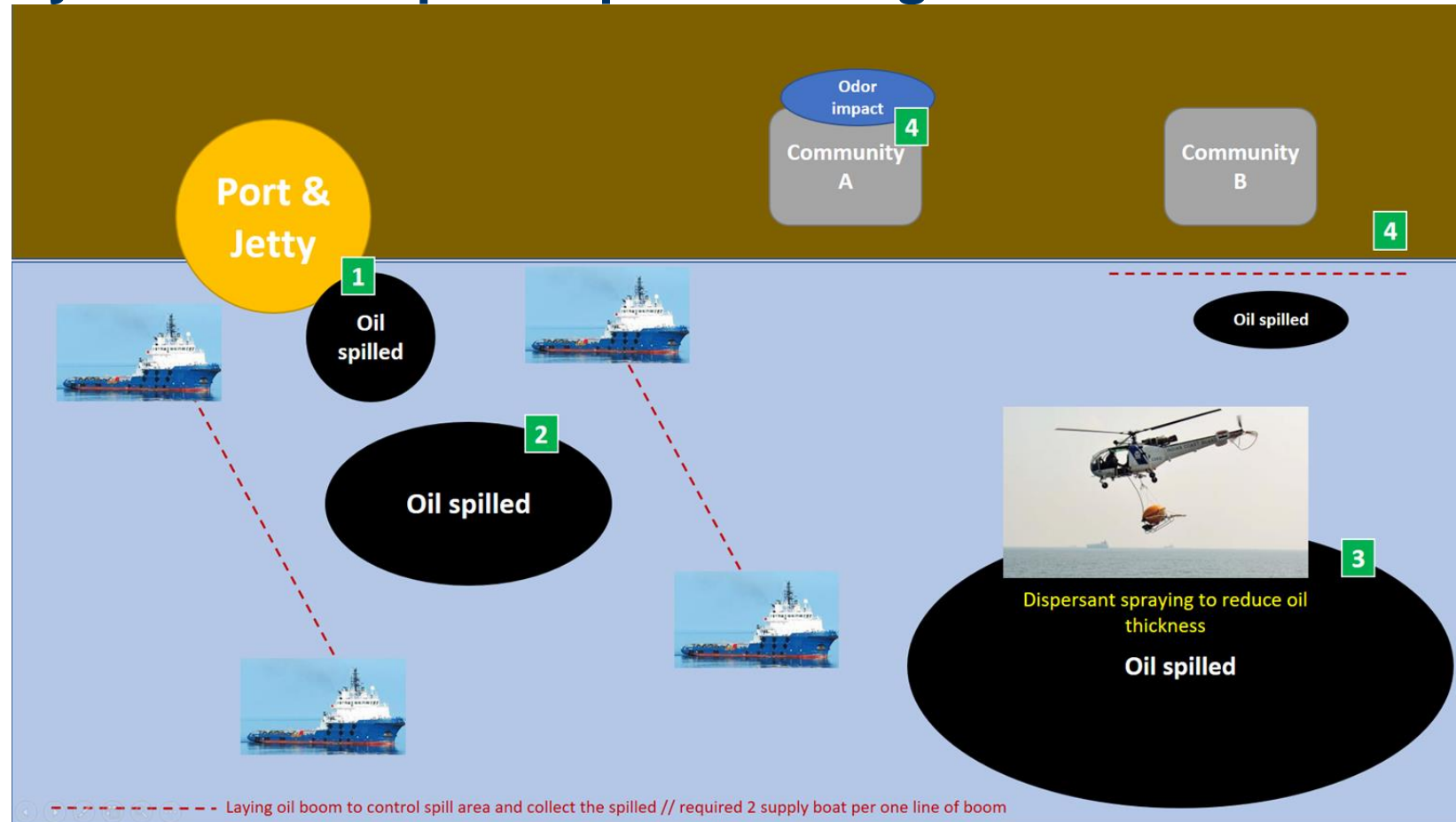
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Case study: SCGC Oil spill response designed scenario



1. Port & Jetty: Communicate to stakeholder, Control leakage, Contain Spill, Assess oil

2. Offshore near Jetty: Contain and collect spill

3. Offshore 20 nautical mile from Jetty: Reduce thickness

4. Onshore Odor & oil impact: Monitor impacted personnel and prepare for shoreline cleanup

(Company & IESG Resource)

(Marine Dept., IESG and Royal Thai Navy Resource)

(Royal Thai Navy & IESG Resource)

(Hospital, Company, and DDPM resource)

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*IESG: Industry Environmental Safety Group Association
**DDPM: Department of Disaster Prevention and Mitigation



SCGC Emergency Personnel Readiness



Fitness to work: To ensure the readiness of ER staff by set up fit test program and conduct by Physical Therapist.



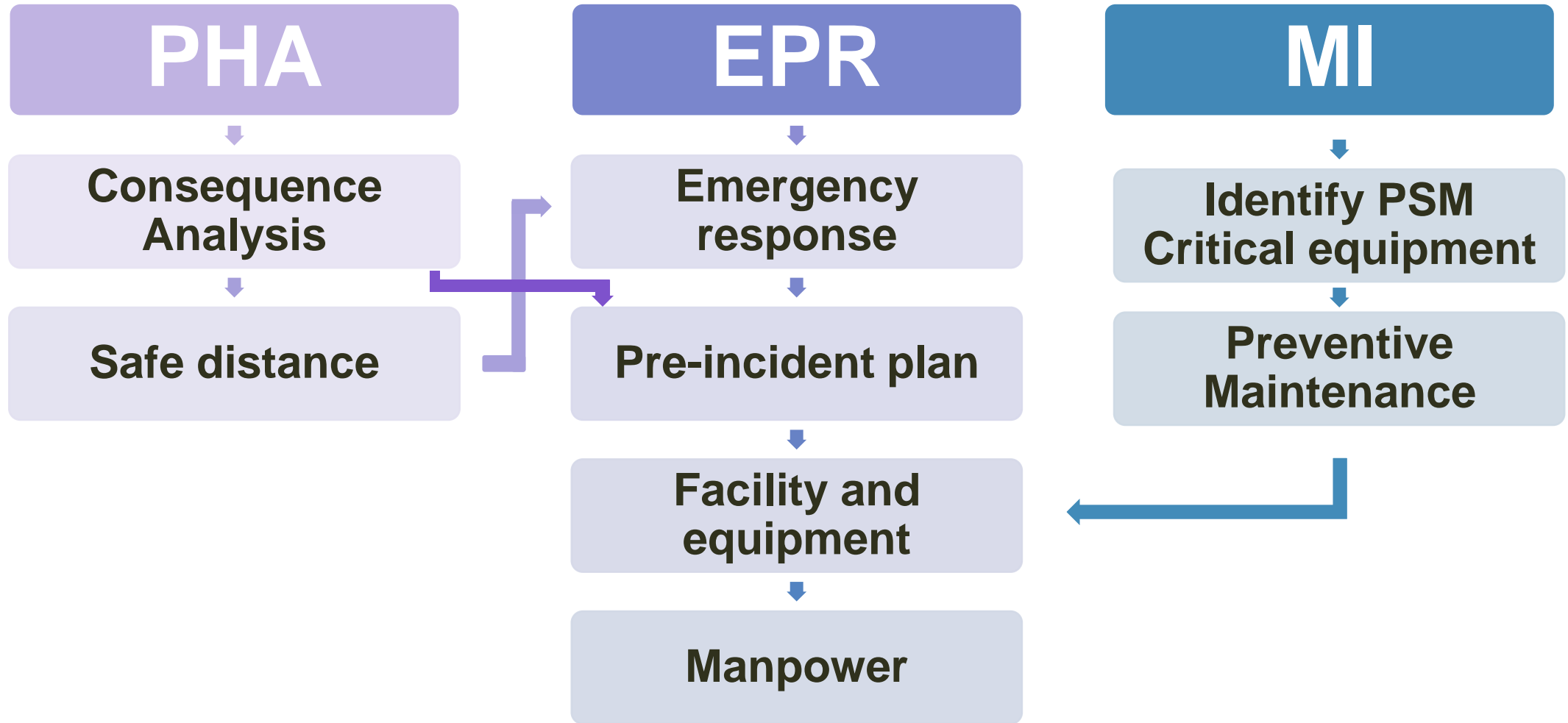
Photo reference: SCGC Fitness to work 2022-2023



Photo reference: SCGC Fitness to work – skill test



SCGC Emergency Readiness – PSM linkage





Key Takeaway



Incident management structure must be unified and could make multi-agencies working together, efficiently

Information management shall be managed by Emergency Operation Center to ensure up-to-date information

Resource management supposed to prepare and identify status for both responsive and preventive operation

Facility and personnel readiness will be set the proper venue and team to handle for each scenario

Networking & collaboration have to be maintained for both management and operational level // not only domestic but overseas



Thank you for your attention





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Rating the session



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