

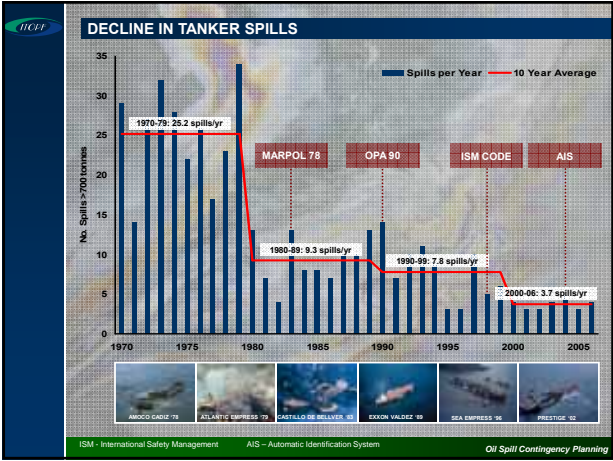


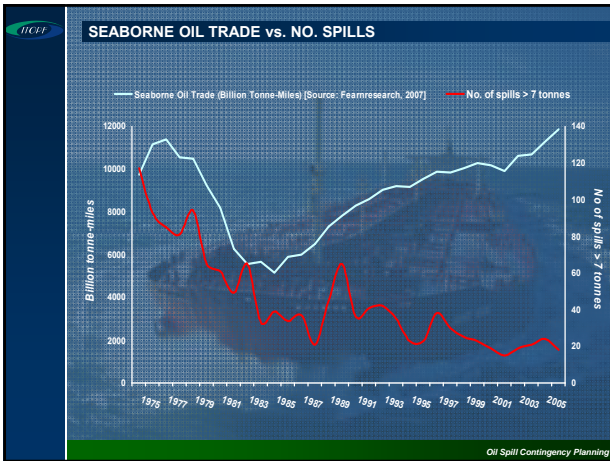

**OIL SPILL
CONTINGENCY
PLANNING**

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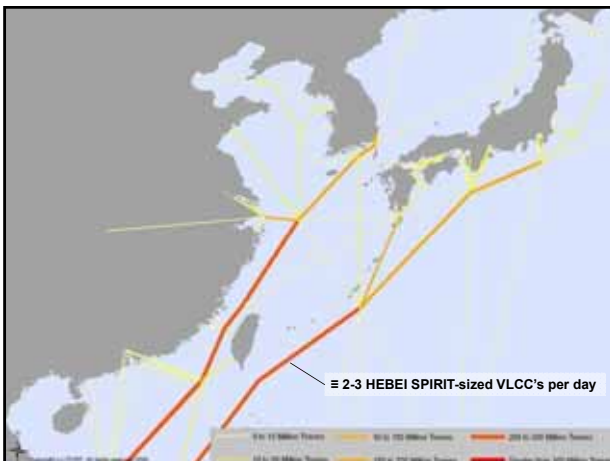
NCSEMC - ITOFF Workshop













WHY PLAN?

- Careful planning is essential for any operation to be effective ... especially in emergency situations!
- Oil spills typically test authorities to the limits of their capability
- Numerous agencies are likely to be involved in a response
- Roles and responsibilities need to be clearly defined in advance
- Response resources need to be allocated to maximise options
- Sensitive sites need to be identified & prioritised in advance
- Preferred strategies should be agreed on for various scenarios

Oil Spill Contingency Planning

OPRC: NATIONAL OBLIGATIONS

- Authorities must establish measures for dealing with oil spills
 - Nationally (coastal waters & shorelines)
 - In cooperation with other countries
- Detailed plans for dealing with oil spills should be developed
- There must be a designated national authority
- Offshore operators must have coordinating plans
- Authorities must establish stockpiles of response equipment
- Regular training should be provided and exercises conducted
- Parties must provide assistance to other countries if required

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PLANNING RESPONSIBILITIES

LEAD AUTHORITY

- Has overall responsibility for response to marine oil spills
- Tasked with development, maintenance & activation of the plan ... e.g. Coast Guard, Port Authority or Environmental Authority

SUPPORTING AUTHORITIES

- Assist with planning in relation to specific aspects ... e.g. salvage, fisheries / aquaculture, legal, health & safety

OIL INDUSTRY

- Responsible for providing plans for offshore facilities
- May also be included in national plan as response organisation

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TIERED RESPONSE

Tier 3	=	National plan	+	National gov't lead <small>inter-agency co-ordination</small>	+	Industry support
Tier 2	=	Area plan	+	Local/regional gov't lead	+	Industry support
Tier 1	=	Facility or local plan	+	Local gov't oversight	+	Industry / port authority response

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TIERED RESPONSE

Local

- BUNKERING OPERATIONS
- LOADING MISHAPS
- OPERATIONAL INCIDENTS

Tier 1: Local resources: rapid response within capabilities

- Local Contingency Plan (e.g. port authority or oil terminal)

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TIERED RESPONSE

Medium spill	Tier 2	Tier 2	
Small spill	Tier 1	Tier 2	Tier 2
	Local	Neighbourhood	Regional

- Tier 2: Local resources with some additional support
- Area Contingency Plan (e.g. state / county authorities)

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TIERED RESPONSE

Large spill	Tier 3	Tier 3	Tier 3
Medium spill	Tier 2	Tier 2	Tier 3
Small spill	Tier 1	Tier 2	Tier 2
	Local	Neighbourhood	Regional

- Tier 3: National and possibly international resources required
- National Contingency Plan (e.g. state / county authorities)

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DEVELOPING A PLAN

- A Contingency Plan is a framework for management of spill response
... but, simply having a plan does not mean you are prepared!
- It must be understood by all responders for it to be effective – Training
- The plan should be put into practice for training & to test it – Exercises
- It should be regularly updated and modified should the need arise
- A good plan is a 'living document' that evolves as the situation requires

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COMPONENTS OF THE PLAN

- 1. Planning Section: 'What do you want to do?'**
 - Deals with overall strategies (e.g. chemical dispersant policy)
 - Defines the responsibilities & rationale for the operational plan
- 2. Operational Section: 'How are you going to do it?'**
 - Explains the procedures to be followed in the event of a spill
 - Provides a checklist with pointers to information in the directory
- 3. Information Directory: 'What resources are available?'**
 - Acts as a reference source (maps, contact & equipment lists, etc.)

CONSIDERATIONS...

- National & local plans should follow the same layout
- Greater compatibility eases the transition between tiers
- A plan should be a complete document – no external references

Oil Spill Contingency Planning

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PLANNING SECTION

- 1. Introduction**
 - Definitions: Lead agency, statutory requirements & geographic cover
- 2. Risk Assessment**
 - Expected frequency & size of spills, types of oil & likely spill scenarios
 - Likely fate & trajectory based on meteorological & oceanographic data
- 3. Resources at Risk & Priorities for Protection**
 - Ecologically sensitive sites, amenity areas & other resources
 - Equal protection cannot be provided so priorities must be decided
- 4. Response strategy**
 - General approaches to spill response in different situations
 - Decisions based on the Risk Assessment & Priorities for Protection
 - Planned actions must be in line with government regulations

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PLANNING SECTION

- 5. Organisation & Management**
 - Responsibilities of those involved & procedures for coordination
 - Relevant government departments and advisers should be included
- 6. Equipment supplies & Manpower**
 - Location of stockpiles of response equipment should be defined
 - Identification of sources of manpower including contractors
 - Provision for logistics support (food, clothing, shelter, medical, etc.)
- 7. Communications & Control**
 - Predetermination for a fully-equipped communications centre
 - It should act as a central channel for information & decision-making
 - Portable satellite centres may be required for larger responses
- 8. Training, Exercises & Updating Procedures**
 - Training programmes should be developed for all levels of personnel
 - Regular exercises should be held to test the effectiveness of the plan
 - Improvements / updates to the plan should be made if required

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RISK ASSESSMENT



- Historical spill statistics may allow a quantitative analysis
- Sources (vessels, loading operations, bunkering, etc.)
- Oil types (e.g. most common types of crude oil traded)
- Potential size of spill (typical quantities handled & vessel sizes)
- Likely scenarios including potential fate & trajectory of oil

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SENSITIVITY MAPPING



- Fisheries & aquaculture
- Seabirds & other wildlife
- Sensitive habitats (wetlands)
- Culturally sensitive sites
- Population centres
- Amenity & tourist beaches
- Recreation areas (marinas)
- Power & desalination plants

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OPERATIONAL SECTION

1. Notification

- Programme for alerting relevant authorities and response personnel
- Alert Procedure: Date, time, position, source, amount, type of oil, etc.

2. Evaluation

- Procedure for evaluation of the seriousness of the incident
- Determination of trajectory of spilled oil & the risk to resources
- Procedures for conducting aerial surveillance to get an overview

3. Response Decision

- Procedure for establishing the general approach that fits the situation
- Allocation of required equipment & manpower to put on standby

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OPERATIONAL SECTION

4. Cleanup Operations

- Guidelines for establishing a dedicated command post near to the site
- Steps for mobilising equipment & manpower from the stockpiles
- Procedures for deploying spill response equipment at the sites
- Checklist for organising logistic support for cleanup operations
- Protocol for use of aircraft to guide at sea activities & survey the spill
- Guidance on the selection of waste disposal routes for recovered oil
- Procedures for monitoring progress and keeping adequate records

5. Communications

- Procedures for opening channels of communication for all parties
- Must include communications between aircraft, vessels and land

6. Termination of Cleanup

- Guidelines for termination when desired level of clean-up is reached
- Also should be followed when operations cease to be effective
- Termination criteria should be agreed between parties beforehand
- Should include demobilisation and reporting procedures

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INFORMATION DIRECTORY

- Types & characteristics of oils likely to be spilled
- Currents, tidal ranges and prevailing winds
- Shoreline types, sensitive areas and priorities for protection
- Spill response equipment lists and locations
- Areas where dispersant use is approved
- Access routes and waste storage / disposal sites
- Auxiliary equipment (e.g. aircraft, excavators, vacuum trucks)
- Logistics support (e.g. accommodation, catering, security)
- Contact details for all authorities & sources of technical expertise

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INITIAL RESPONSE ACTIONS

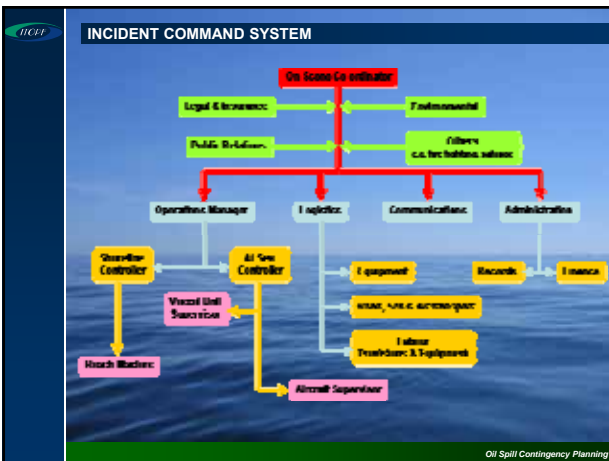
- Communicate with the polluter to confirm initial information
- Activate the Contingency Plan and contact all relevant parties
- Assemble team and assign responsibilities
- Establish a communication system
- Begin spill assessment process
- Prepare a Situation Report

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RESPONSE ORGANISATION

- Many different organisational structures are possible
- Often adapted from existing emergency systems
- It must be flexible to allow for scaling up or down & modifying
- The Incident Command System is a commonly-used approach
- It is a standardised on-scene incident management concept
- Defines roles and provides clear communication channels

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COMMAND CENTRE

- Location near spill
- Plenty of space for all required personnel
- Good communications & IT requirements
- Information display boards for charts / maps, etc.
- Latest weather and oil sighting reports (GIS system?)
- Situation reports for response operations
- Equipment and personnel locations
- Necessary logistics (catering, parking, security, etc.)

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