Large scale oil spill response: global best practice

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Introduction to ITOPF

- To promote effective response to oil spills
- Technical team with 12 responders
- Over 750 spills in 100 countries
- In-house database and other information services
General trends

- Decline in spills as well as average volume spilled/incident
Recent work

• 18 new mobilisations over the last 12 months
• 3 incidents involving tankers
What makes a “large scale” response?
What makes a “large scale” response?

<table>
<thead>
<tr>
<th>Position</th>
<th>Shipname</th>
<th>Year</th>
<th>Location</th>
<th>Spill size (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ATLANTIC EMPRESS</td>
<td>1979</td>
<td>Off Tobago, West Indies</td>
<td>287,000</td>
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<tr>
<td>2</td>
<td>ABT SUMMER</td>
<td>1991</td>
<td>700 nautical miles off Angola</td>
<td>260,000</td>
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<td>3</td>
<td>CASTILLO DE BELLVER</td>
<td>1983</td>
<td>Off Saldanha Bay, South Africa</td>
<td>252,000</td>
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<td>4</td>
<td>AMOCO CADIZ</td>
<td>1978</td>
<td>Off Brittany, France</td>
<td>223,000</td>
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<tr>
<td>5</td>
<td>HAVEN</td>
<td>1991</td>
<td>Genoa, Italy</td>
<td>144,000</td>
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<tr>
<td>6</td>
<td>ODYSSEY</td>
<td>1988</td>
<td>700 nautical miles off Nova Scotia, Canada</td>
<td>132,000</td>
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<td>7</td>
<td>TORREY CANYON</td>
<td>1967</td>
<td>Scilly Isles, UK</td>
<td>119,000</td>
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<td>8</td>
<td>SEA STAR</td>
<td>1972</td>
<td>Gulf of Oman</td>
<td>115,000</td>
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<td>IRENES SERENADE</td>
<td>1980</td>
<td>Navarino Bay, Greece</td>
<td>100,000</td>
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<td>10</td>
<td>URQUIOLA</td>
<td>1976</td>
<td>La Coruna, Spain</td>
<td>100,000</td>
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<td>11</td>
<td>HAWAIIAN PATRIOT</td>
<td>1977</td>
<td>300 nautical miles off Honolulu</td>
<td>95,000</td>
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<td>12</td>
<td>INDEPENDENTIA</td>
<td>1979</td>
<td>Bosphorus, Turkey</td>
<td>94,000</td>
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<td>13</td>
<td>JAKOB MAERSK</td>
<td>1975</td>
<td>Oporto, Portugal</td>
<td>88,000</td>
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<td>14</td>
<td>BRAER</td>
<td>1993</td>
<td>Shetland Islands, UK</td>
<td>85,000</td>
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<td>15</td>
<td>AECEAN SEA</td>
<td>1992</td>
<td>La Coruna, Spain</td>
<td>74,000</td>
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<td>16</td>
<td>SEA EMpress</td>
<td>1996</td>
<td>Milford Haven, UK</td>
<td>72,000</td>
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<td>17</td>
<td>KHARK 5</td>
<td>1989</td>
<td>120 nautical miles off Atlantic coast of Morocco</td>
<td>70,000</td>
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<td>18</td>
<td>NOVA</td>
<td>1985</td>
<td>Off Kharg Island, Gulf of Iran</td>
<td>70,000</td>
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<td>19</td>
<td>KATINA P</td>
<td>1992</td>
<td>Off Maputo, Mozambique</td>
<td>67,000</td>
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<td>20</td>
<td>PRESTIGE</td>
<td>2002</td>
<td>Off Galicia, Spain</td>
<td>63,000</td>
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<td>35</td>
<td>EXXON VALDEZ</td>
<td>1989</td>
<td>Prince William Sound, Alaska, USA</td>
<td>37,000</td>
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<td>131</td>
<td>HEBEI SPIRIT</td>
<td>2007</td>
<td>Taean, Republic of Korea</td>
<td>11,000</td>
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</tbody>
</table>
Other factors?

Proximity to coast – visibility of incident
Other factors?

- Fisheries & aquaculture
- Seabirds & other wildlife
- Sensitive habitats
- Culturally sensitive sites

- Population centres
- Amenity & tourist beaches
- Recreation areas (marinas)
- Power & desalination plants
Other factors?

How the incident compares with the prevailing risk profile in a country?

LADY TUNA    Reefer Ship
4,538 GT
Other factors?

Pre-existing public-political issues

B.C. oil spill response times may be a 'ticking time bomb'

Vancouver Sun
Multiple factors leading to “large-scale”

The interplay of influencing factors can result in greater disorder than is usually the case in the immediate aftermath of an incident.
The aim is always to attempt to achieve a systematic approach as quickly as possible.
Challenges: command and control

- Number of local authority jurisdictions affected by spill
- Contractors normally working in competition
- Who’s really in charge?
- Military assistance for shoreline response
Challenges: coordination of response assets
Challenges: technical reasonableness vs. public and political pressure
Challenges: financial and administrative arrangements

Financial and administrative
- Customs and immigration – establish agreements with relative authorities to facilitate entry of response equipment
- Establish and maintain an inventory, including dimensions

Personnel
- Consider any communication barriers such as language, channels of communication etc.
- Define communication SOPs in regional or bilateral agreements

Equipment
- If borrowing equipment, establish chain of responsibility
- Consider logistical aspects of equipment transfer (airport landing facilities, transport, packaging etc.)
Challenges: when it goes transboundary

- Aerial surveillance and rapid access to airspace
- Notification procedures - POLREP (Pollution reporting system), when to notify a state?
- Command integration
- Operational and logistical coordination
- Place of refuge
Best practice around the world: ITOPF’s experience

No. 1 = PREPAREDNESS

Practice

Plan

Prepare
Best practice around the world: ITOPF’s experience

Key drivers

- Communication
- Command integration
- Politics, press and public
- Operational and logistical cooperation
- Transboundary: Place of refuge and notification procedures
Communication

- Between command centres
- Between contractors usually in competition
- Transboundary – language
Command and leadership

Strong leadership

- Clear and relevant objectives
- Explicit chain of command and ownership procedure
- Case-specific considerations

One individual (or entity in the form of unified command in the US) to take ultimate responsibility. SOSREP system in UK works well.
• Disseminate accurate information in a timely manner
• Have a strategy – it will not go away
• At a local level, political considerations may override the aims of central authorities’ remit - elections?
Operational and logistical cooperation

Command centre involving all parties

Initial assessment

Operations

End points

Success determined by integrated command

Explicitly state SOPs/procedure
Transboundary issues

Aerial Surveillance
Critical factor in ensuring an effective response. Minimising bureaucracy by establishing pre-agreed protocols can result in a more effective response, and minimise uncertainty/disputes as regards source of contamination.

Notification procedures
Other authorities or organisations allows them to prepare, even if ultimately no action is required.

Communication
Regular communication between command centres as well as operational units will avoid use of incompatible response measures.

SOPs/operational document for how to achieve this practically should be contained within the plan.

Factor most able to be mitigated by appropriate planning and preparedness activities.
Summary – lessons for the future

No. 1 factor leading to success: PREPAREDNESS

BUT – for a large scale incident, be PREPARED to be flexible

Strong leadership

Acknowledge political, public and press related pressures

Streamline financial and administrative matters

Eliminate competing elements

Cooperation - not just in theory
THANK YOU FOR YOUR ATTENTION!

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