



Overview

▶ Regional Context

▶ Tier 2 Examples

▶ Links with Tier 3





Regional Context

Growing risk

- Environmental diversity
- ➤ Accelerating economic growth
 - Energy demand
- ▶ Increased E&P activities
 - Peaked production
 - Deepwater and Remote activities





Asia -Tier 2 Models

- ➤ Wide range of approaches to Tier 2 in region (NOC, industry, commercial)
- ➤ Structure and resources vary
- ▶ Location (geography, logistics) impact
- ▶ Dispersants approvals and permits
- Links to Tier 3





Tier 2 examples

PIMMAG (Malaysia)

- Petroleum Industry of Malaysia Mutual Aid Group
- **▶** Formed in December 1993.
- Bases 7
- Operation
 - Management based in Kuala Lumpur
 - Employs own response staff
- Governance
 - Advisory Board (HSE Managers from industry)
 - Board of Directors (Presidents/General Managers from industry)
- Preparedness
 - Provides training to industry and regulator
- Funded
 - Annual fee to cover operating budget





IESG (Thailand)

- Industry Environmental Safety Group
- Over 40 yrs old
- Bases
 - Equipment partly at IESG bases, partly at Members' bases
- Operation
 - No full time management
 - Members must mobilise /deploy equipment
- Governance
 - Advisory Board (HSE Managers from industry)
 - Board of Directors (Senior Managers from Industry)
- Preparedness
 - Provides training for Members' operations teams
- Funding
 - Annual fee to cover operating budget



OSCT (Indonesia)

- Established 2011
- Bases
 - Main base in Jakarta
 - Satellite bases across Indonesia
- Operations
 - Management + own responders
- Governance
 - Privately owned
 - No industry involvement
- Preparedness
 - Provides training and consultancy to industry
- Funding
 - Membership fee and operating fees set by OSCT on commercial terms



COES (China)

▶ Established 2003

Operations

- Management based in Tanggu, Bohai Gulf
- Each base manned with response staff
- Own offshore response vessels

Governance

- Owned by China National Offshore Oil Corporation (CNOOC)
- No IOC industry involvement

Preparedness

Provides training and environmental services

Funding

Annual fee linked to Member's daily production of oil



AMOSC (Australia)

- Australian Marine Oil Spill Centre
- Established 1991
- Bases
 - Main base in Victoria
 - New satellite base in West Australia
- Operations
 - Management + small response team
 - Supported by industry 'core group' of responders
- Governance
 - Owned by downstream industry association (AIP)
 - Board of Directors (HSE Managers from industry)
- Preparedness
 - Provides training to industry
- Funding
 - Annual subscription to cover operating budget



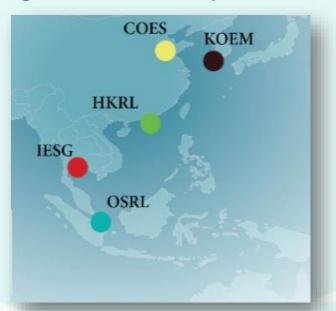




Partnerships

RITAG

Regional Industry Technical Advisory Group





- Initiated in 2010
- ▶ Information sharing, experiences, lessons learned



Engaging Industry - Regional

▶ Tier 2

- In-country mutual aid
- Integrating with Tier 3
- Regional Industry Technical Advisory Group (RITAG)
 - Beijing 2010
 - Information sharing
 - Technical support
 - Experience sharing
 - Encourage bilateral co-operation





MoU

➤ OSCT, Indonesia

- Signed in 2014
- No industry mutual aid
- MOU with OSCT
- Protocols for technical and logistic cooperation

➤ AMOSC, Australia

- Alliance Agreement 2009
- Montara experience
- AMOSC will be the 'lead' response organisation
- Exercises in 2011 and 2013

Protocols

Mobilisation

Resources

Incident Management

Communications

Logistics



Montara- Australia

Location	Timor Sea
Event	Loss of well control
Oil Type	Light crude
Quantity	Estimated discharge rate 500 bbls/day
OSRL support	Aerial Surveillance, Dispersant Spraying, Containment & Recovery









AMOSC and OSRL

Scenario

- ➤ Shell tanker spill, close to Melbourne
- ➤ AMOSC request OSRL support on behalf of Shell
- ▶ Personnel, equipment, Hercules
- Two OSRL staff injured in car accident in Australia



AMOSC and OSRL

Objectives

- Activation and notification procedures
- Logistics visas, permits etc.
- Communication
 - -With Shell
 - -Internally between OSRL and AMOSC
- Resource allocation
- How to sustain over 6 weeks
- Right skills, right place



AMOSC and OSRL

Lessons

- Communication
- improve the information flow 'around the response'
- Common terminology
- Should use incident command terminology
- Contracts
- Understanding mutual contracts / commitments / roles with Members



Tier 2

➤ Key element of the Tiered Response Concept

Different model

- Design must be 'fit for purpose'
- Capability expectations must be clear

Operations

- Essential to have Management and core response team
- Logistic capability must be ensured
- Opportunity to assist with dispersant approvals / permits



Tier 2

➤ Funding & Governance

- Access to adequate funding for operating expenses and equipment purchases
- Proper governance structure to ensure adherence to agreed standards and strategic direction

Links

- Important role in integrating Tier 3 in a response
- Role in National Plan and exercises



Questions?

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