



#### **Stockpile Management**

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### Outline

- Determining the Mission
- Equipment logistics
- Equipment maintenance
- Equipment quantity
- Equipment capability
- Equipment renewal / disposal



#### **Determining the Mission**

Important to understand what the mission is.

- Tier 1 equipment
  - Compact enough to be delivered to operations at short notice
  - Pre-packed into systems for immediate despatch
  - Basis equipment
    - » Easy to use [training, reliability]
    - » Easy to maintain
- Tier 2 equipment
  - Might be larger in size
  - Ideally compatible [but not essential]
  - Must be compatible with oil types
  - If as mutual aid arrangement must be able to be deployed

#### - Tier 3

- Range of equipment types to meet different oil and environmental conditions
- Size is important
- Credibility of response an issue
- Logistics / packaging / documentation





### **Equipment Logistics**

- Getting equipment to site is a critical component of response
- Early consideration in equipment acquisition
  - Equipment must be easily deployable
  - Packaged to keep components together
    - Allows checking ~ security tagging
    - Reduces possibility of missing critical items
    - Reduces number of lifts to mobilise
    - Packaging matched to fork lift/ transport capacity
      - » Differing requirements for each mission
    - Access to storage location must be managed properly
    - Documentation system required





#### **Equipment Maintenance**

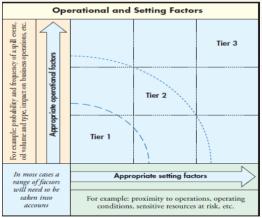
- Critical element of readiness
- Systemic weakness in some cases
- Pollution equipment does not accrue many running hours
  - Equipment maintenance regimes often need to be tailored to calendar based system
  - Need to avoid unnecessary maintenance
- Need to generate history for equipment maintenance
  - Can become post spill issue in inquiry
- Batteries / Hydraulic hoses pose particular problems





### **Equipment Quantity**

- Equipment resources should be linked to tiered response
- Recognise credibility of response ~ red faced test!
- Contingent on access to support
  - Distance / time / accessibility
- Not more equipment than can be reasonably deployed / maintained
- Personnel levels set limits
- Access to deployment logistics will dictate equipment levels
- Mathematical models can skew reality







# **Equipment Capability**

- Theoretical v actual rates
- Mathematical models
- Testing regimes
  - Certification
  - Pump rates
  - Oil encounter rates
  - Oil types
  - Realities
- Lifting Equipment





#### **Equipment Renewal**

- Equipment life varies ~ 10 ~ 15 years
- Funding of equipment renewal ~ OSRL model ~ use of spill income
- 3 year plan looking at requirements
- Need to keep track on new technology / new demands
- Focus over past five years ~ smaller more compact transportable system
- Recognise fact that sometimes high capacity is needed
- Aerial dispersant ~ age of aircraft platform
  - Major project looking forward





# Summary

- Managing stockpiles requires a clear understanding of response purpose
- Equipment selection is not just a commercial decision
- Maintenance of equipment is fundamental requirement
- Plan and Funding mechanism is a key consideration



