

Oil Spill Preparedness & Response

Elmer Emeric

Caribbean Regional Response Team



2010 Macondo: New Paradigm





Airborne Dispersant Delivery System (ADDS)

Training December 2009





CLEAN CARIBBEAN & AMERICAS



CCA ADDS Spraying



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Preparedness & Response Model

- Equipment
- ▶ Responders (Employees, Contractors, Network)
- Training
- ▶ Logistics & Contingency Planning
- Drills & Exercises
- Government Liaison
- Education & Advocacy
- ▶ Technical Expertise
- Shipping & Customs Documentation
- ▶ 24/7 Call-out System
- Safety Protocols

Equipment Capabilities & Options

Capacidad de Equipos

- Chemical Dispersion
- In-Situ Burning
- Containment & Protection
- Mechanical Recovery
- Temporary Storage
- Shoreline Clean-up
- Telecommunications
- Wildlife Rehabilitation

Dispersión Química

Quéma en sitio

Contención y Protección

Recuperación Mecánicos

Almacenamiento Temporal

Limpieza de las Costas

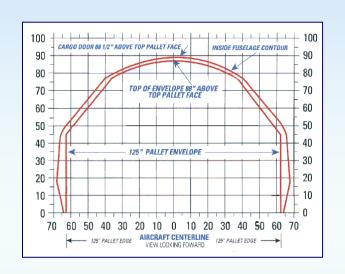
Telecomunicaciones

Rehabilitacion Natural

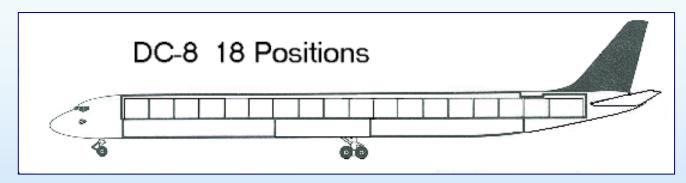


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Air Mobility Concept B727, DC-8, B757...B747









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International Tier 3 OSROs Merger of CCA-OSRL









New OSRL Global Capabilities

- ◆ CCA-OSRL Merger:
 - Combined Oil Spill Preparedness & Response Capabilities
- Enhanced Aerial Dispersant Capability
- New (4) Sub-sea Capping Systems
- Sub-sea Dispersant Injection Capability
- Global Dispersant Stockpile
- Sub-sea Containment System (design)



OSRL Global Aviation Strategy

- Review Global & Regional coverage
- ◆ 727 Jet Spray Plane (2013)
- ◆ 727 Jet Spray Plan (2014)
- ♦ C-130 Hercules
- New Airborne Surveillance Capability (2014)







Well Incident Intervention

- OSPRAG (North Sea)
- SWIS (Global)
- Global Dispersant Stockpile

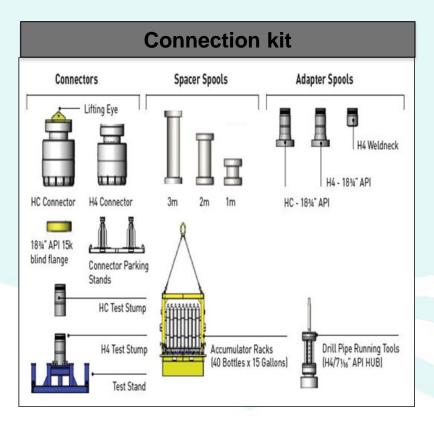


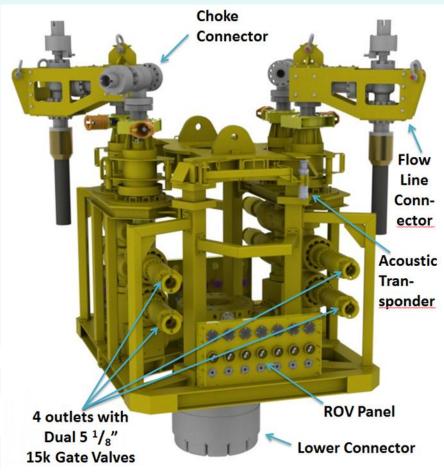






Capping Toolbox(s)

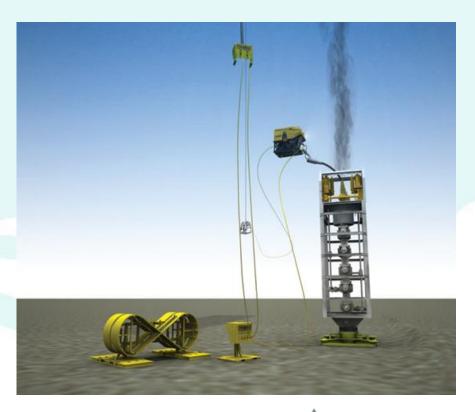






Dispersant Toolbox(s)

- Two complete packages
- Designed and initially stored with Oceaneering
- Toolbox functions
 - Existing BOP Intervention
 - Debris clearance
 - Subsea dispersant application
- Equipment packed in 6 x 20 ft containers
 - Airfreight ready
- Storage in Norway and Brazil
- Delivery Dec 2012



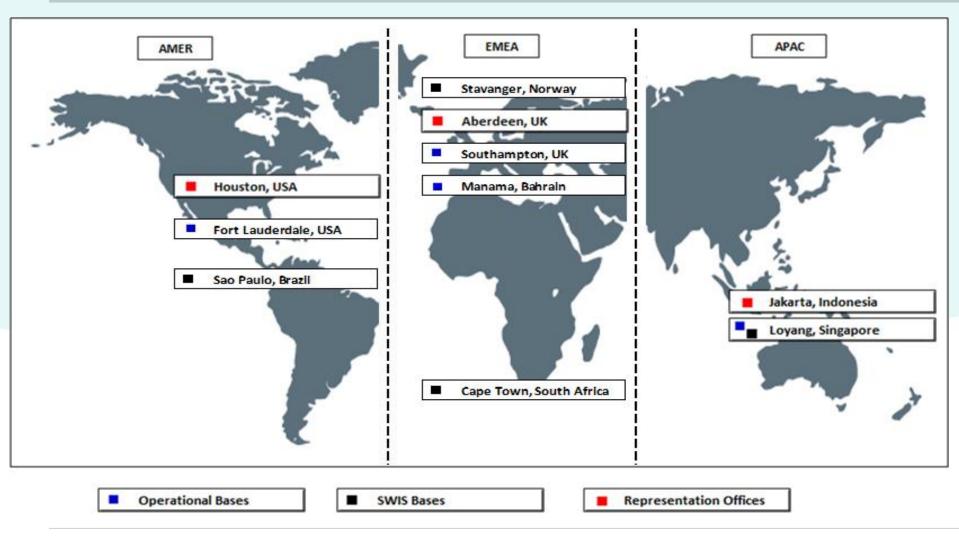


Global Dispersant Stockpile (500 tonnes: Air Mobile)





A Global Company





Effective Response

- ◆ Trained people...
- Working to well-developed contingency plan...
- ◆ That has been well-resourced and...
- Is regularly exercised





Response resources

Personnel

- Competency-based development
- ICS for operations, planning and logistics
- Highly experienced
- Diverse and multi-disciplinary





Equipment

- All response scenarios; land and sea
- Systems ensuring maximum effectiveness
 - Computerised customs documentation
 - Pre-loaded equipment packages
- New equipment procured in 2012 eg. fireboom, high-volume offshore recovery systems



Supplementary Services for Members

WORLDWIDE

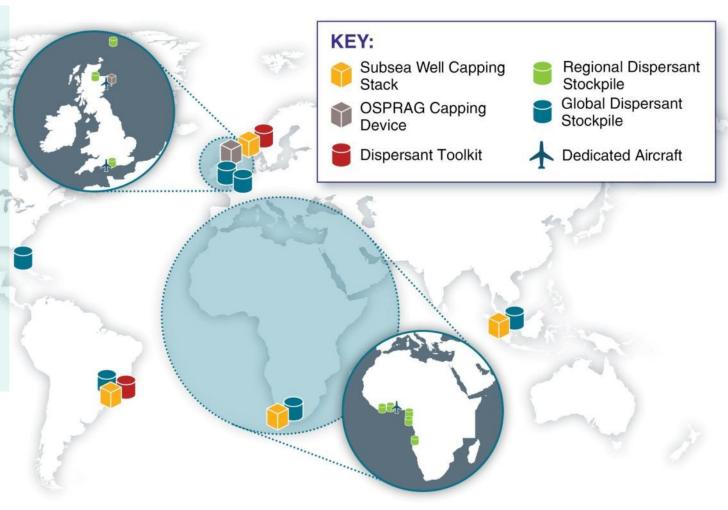
- Subsea Well Intervention Services (SWIS)
- Global Dispersant Stockpile

AFRICA

- West and Central Africa Aerial Surveillance and Dispersant Spraying Services (WACAF)
- Strategic regional dispersant stockpiles

UNITED KINGDOM

- United Kingdom
 Continental Shelf Aerial
 Surveillance and
 Dispersant Spraying
 Services (UKCS)
- OSPRAG Capping Device
- Strategic regional dispersant stockpiles





Napo River, Ecuador: June 2013





Our Participant Members

























































































Associate Members

Adani Welspun Exploration Ltd

Afren plc

AMNI International Limited

Angola LNG Limited Bahamas Oil Refining Bahamas Petroleum Bailiwick of Guernsey

Bayfield Energy

Belize Natural Energy

Bergesen Worldwide

BPZ E&P

Bridge Energy Limited*
C&L Natural Resources Ltd

Cairn India Ltd Cairn Energy plc CF Tunisia

Centrica Resources Ltd

CEPPOL CESPM

Chrysaor Limited
CIE Angola Block 21, Ltd

CNOOC Congo

CNOOC Uganda Limited Dana Petroleum (E&P) Ltd

DONG E&P A/S

Dragon Oil (Turkmenistan) Ltd

E.on E&P UK Ltd Eco Petrol

Edison SpA

Emerald Energy Resources

Endeavour Energy (UK) Ltd Energy Resource Technology UK

EnQuest Britain Limited

Environmental Protection Agency EOG Resources United Kingdom Ltd

EOG Resources Trinidad Ltd

EurOil Limited

Fairfield Energy plc

First Oil

Foxtrot International LDC

Galoc Production Company W.L.L

Gassco, UK* GDF Suez SA

Gibraltar Port Authority
Glencore Exploration Cameroon

Great Lakes Dredge & Dock Company

Guam Response Services Ltd Gujarat State Petroleum Corp Ltd HM Naval Base Portsmouth HPCL – Mittal Energy Limited

HRT Africa Petroleo S.A. Hurricane Exploration plc Ithaca Energy (UK) Ltd JX Nippon E&P UK Ltd

Joint Stock Company Zarubezhneft

Kosmos Energy LLC Kebabangan Petroleum LukOil Sierra Leone Lundin Services B.V. Minister for the Marine Mitra Energy Limited

MODEC

MPX North Sea Ltd

Mubadala Petroleum Limited

National Grid* NCOC B.V.

Newfield Peninsula Malaysia Inc

Nigeria LNG

Niko Resources Limited

Norwegian Energy Company ASA

Nustar Terminals Antilles

OCENSA

OMV E&P GmbH Ophir Ghana Origin Energy

Panama Canal Authority

Peru LNG S.R.L. PetroCeltic

Petrofac Malaysia PM-304 Ltd

Petrofac Mexico Petrojam Petro Masila Petrotrin

Philodrill Corporation

Premier O&G Services Limited

Petroterminal de Panama

PT PHE ONWJ RECOPE REFIDOMSA

Reliance Industries Ltd

Rijkswaterstaat

Rubis Energy Jamaica Limited RWE Dea UK Holdings Ltd*

RWE Norge

Salamander Energy

Santos Savia Peru

Singapore Petroleum Company

Soco International plc

Sociedad de Salvamento y Seguridad

Sol Caribbean Starc Limited STAATSOLIE

Sterling Resources Ltd

Taq Taq Operating Company Ltd

TAQA Bratani Ltd

Termap
Totalerg SpA

Turkiye Petrol Refinerileri A.S.

Vaalco Energy, Inc Vermilion REP SAS

Vivo Energy

West Indies Oil Company Wintershall Holding GmbH

Zhambai LLP









Gracias - Thank You

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