

Oil Spills – Perspective from an industry-owned cooperative

Liam Harrington-Missin, Geomatics Lead
22 July 2015

OSRL Members

Participant Members



and over 100 Associate Members

Who am I



- 6 years working with Fugro GEOS as an Oceanographer:
 - Design Criteria/Operational Criteria
 - Project Lead on 2 joint industry projects focused on ocean currents
 - Marine Software Engineer (turning Metocean Data to Metocean Information)

- 3 years working with Oil Spill Response:
 - Better respond to an oil spill, anywhere, anytime.
 - Lead enhancements in oil spill modelling, metocean and data integration/visualisation
 - Introduce some Metocean to the oil spill response world



CMarSci, CSci and on the IMarEST OOSIG Committee
(inc. The organising committee for our conference)

**"More data, more data,
we really, really need
more data",**

**"More visibility on
what data we
actually have"**

**"We are all experts in
our own right, but we
work in isolation so
have our own vested
interests"**



**"Learn from others, like the
UK and their small bath tub,
in what may work and
what doesn't."**

Challenge to scale up

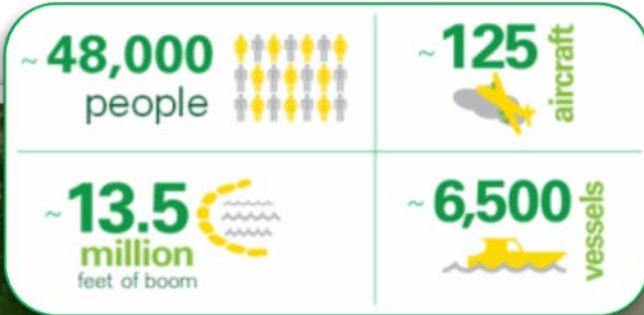
**"We can't actually agree
what operational
oceanography means".**

**"Start with small wins
and watch it snowball"**

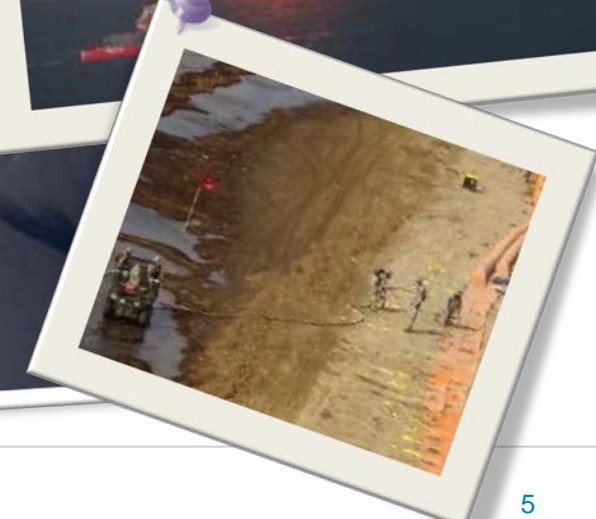
"Partnerships are key"

**HALF WAY
POINT**

This changed everything



Source: BP



- High Level Overview
 - What has been done?
 - What has changed?

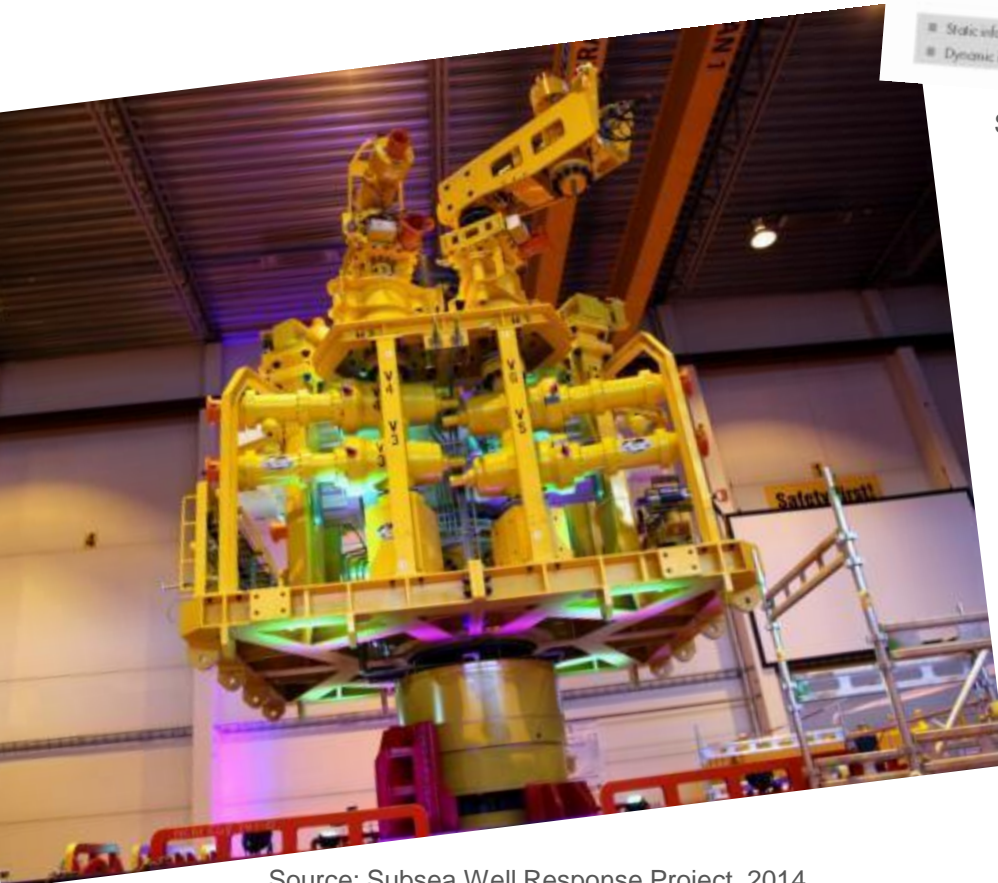


Source: Shell, 2014



Source: Esri, 2014

- Metocean, Modelling, Mapping and Data Integration (Geomatics)



Source: Subsea Well Response Project, 2014

Crisis Management



Spill Response



High Level Overview

Containment



Prevention & Drilling
Safety

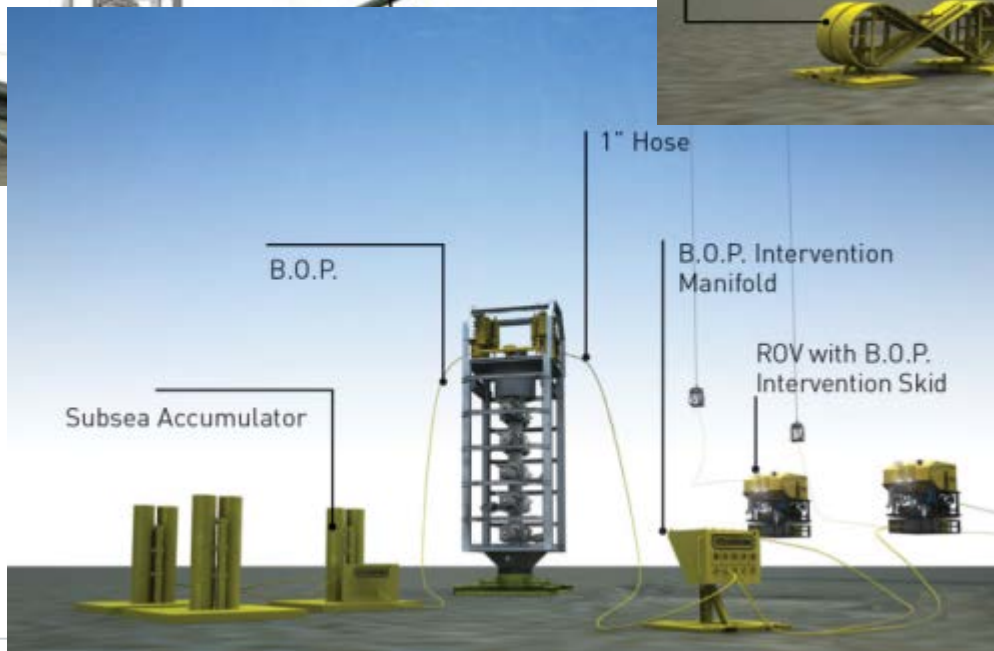
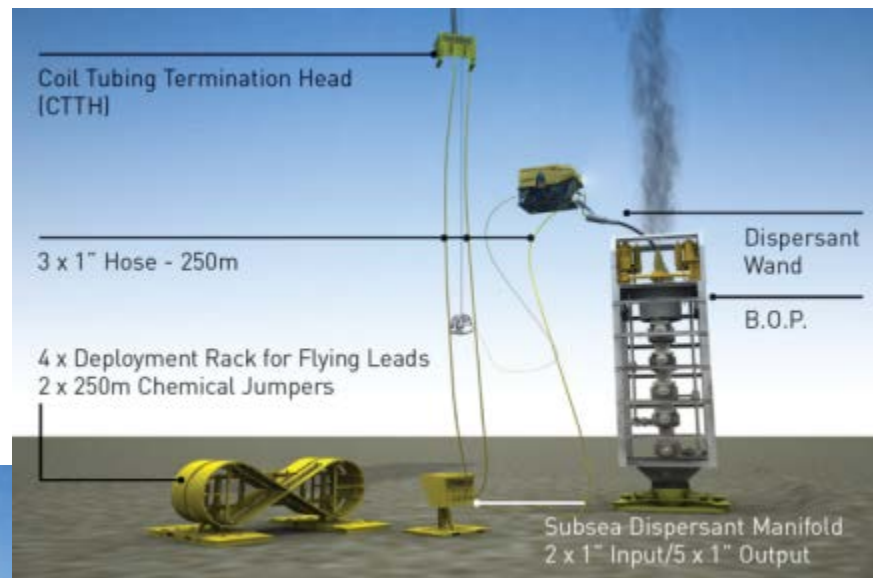


Relief Wells



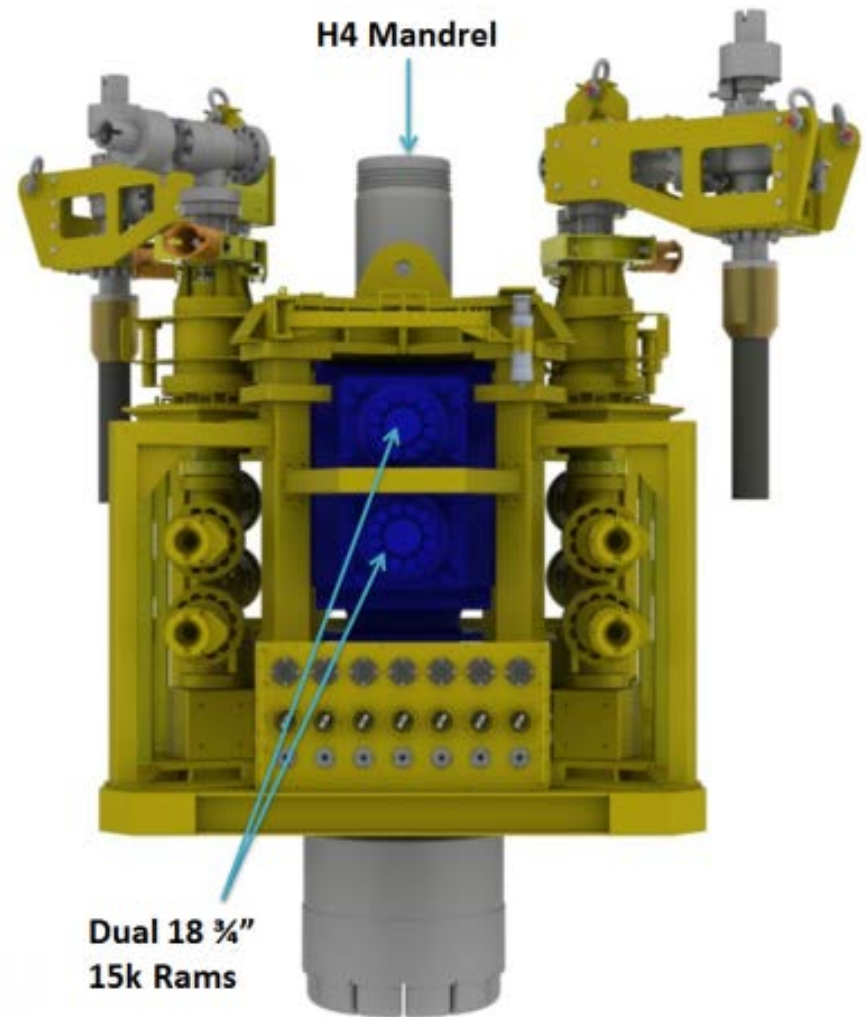
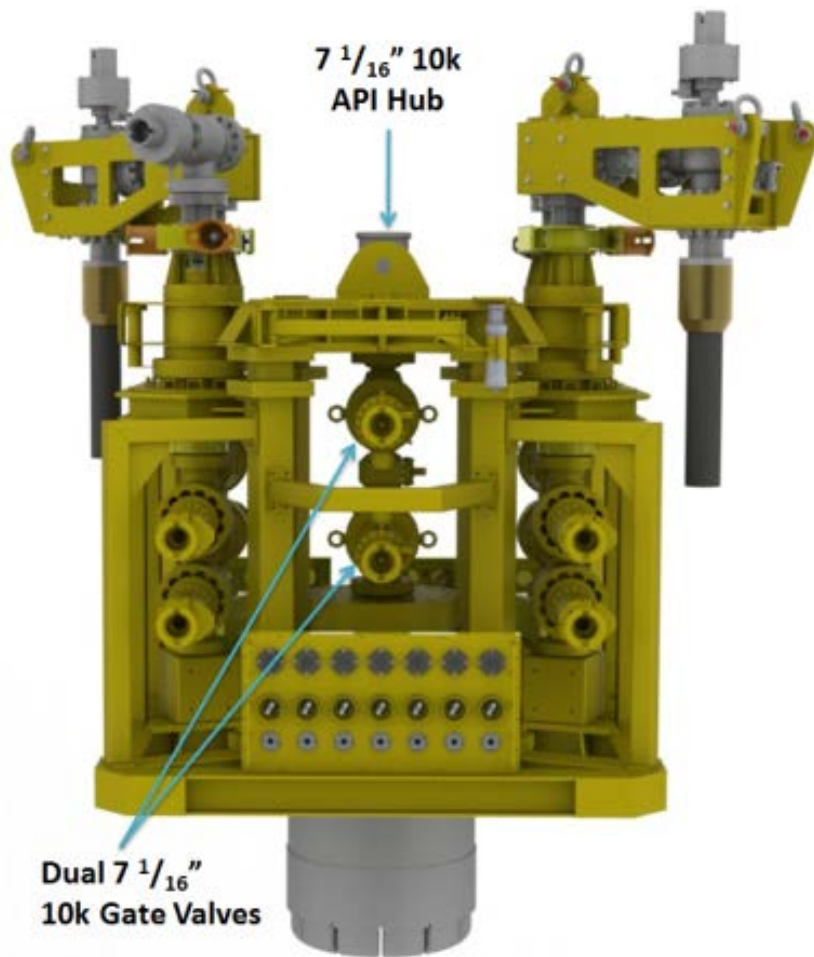


What can we do quickly to stop a blowout and/or minimise the environmental impact?



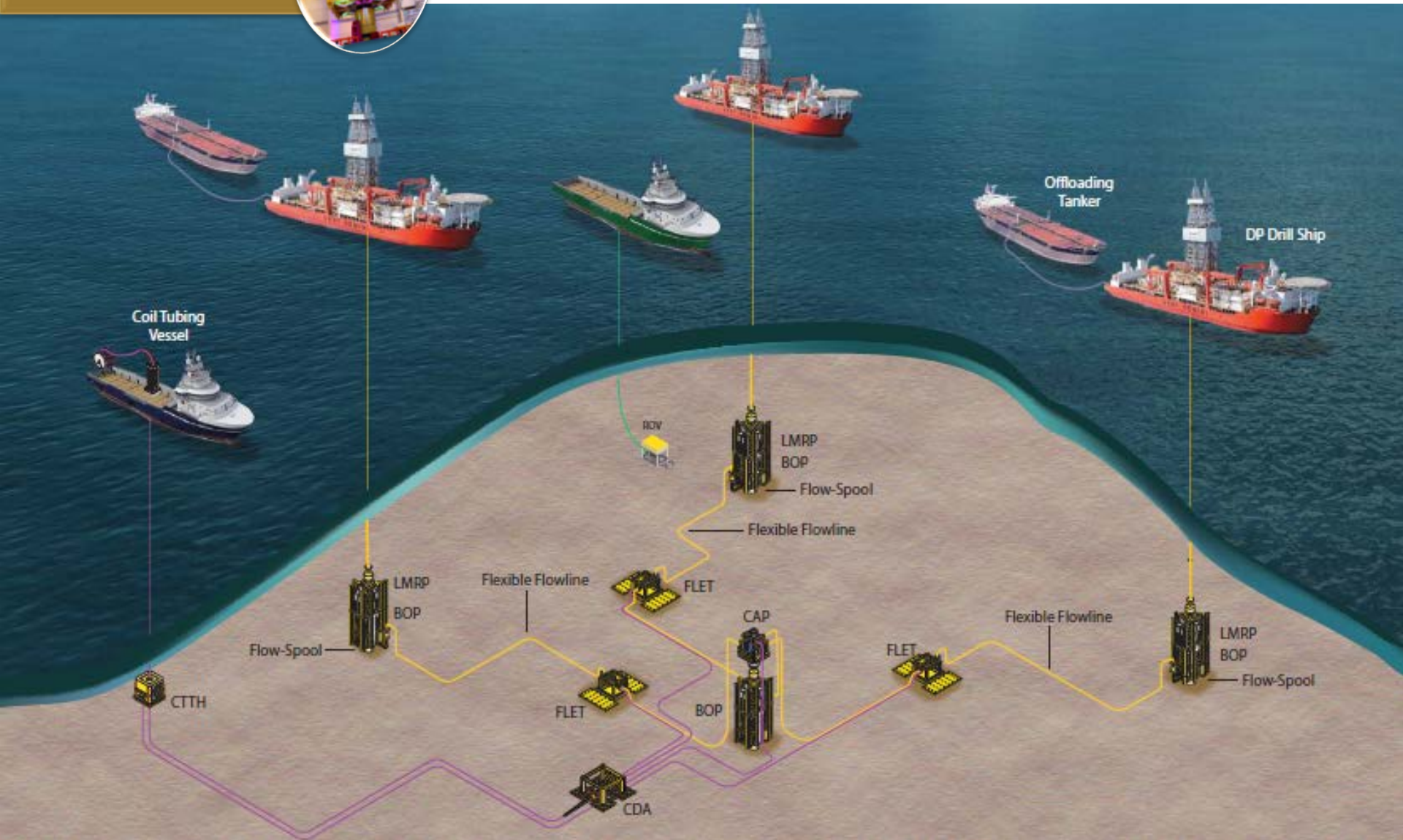


The BOPs still don't work, now what?



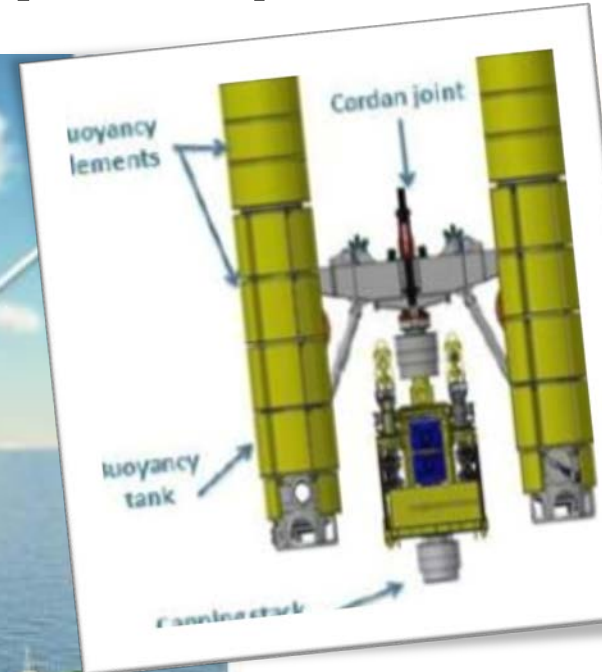
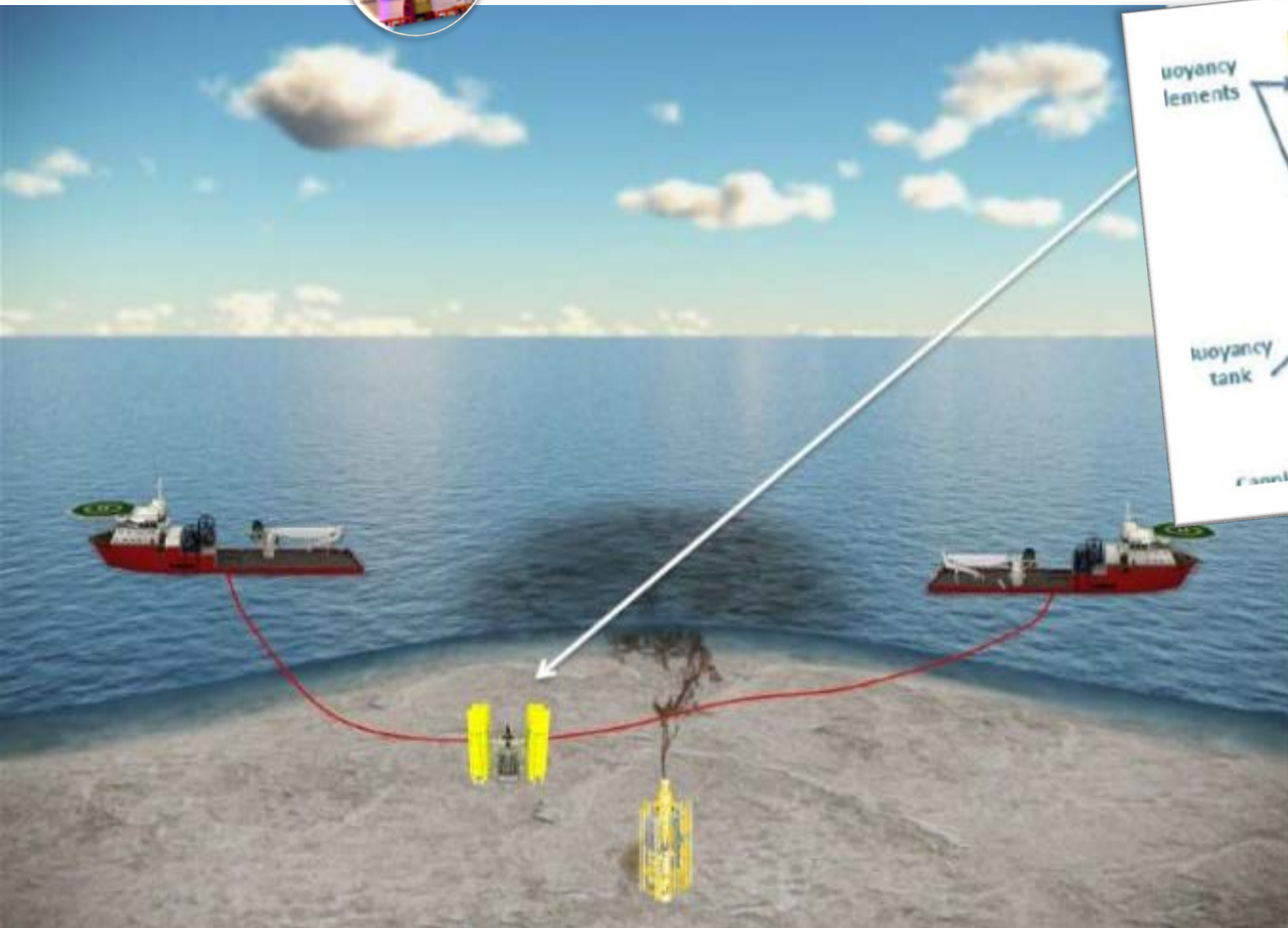


We can't close the cap, now what?!?





We can't get vertical access to the well! How do we deploy the cap?!





Spill Response



API TECHNICAL REPORT 1142
JULY 2013

API TECHNICAL REPORT 1142
JULY 2013



POLLUTION RESPONSE IN EMERGENCIES

POST-INCIDENT MONITORING GUIDELINES



North Sea Manual

API PUBLICATION 350
AUGUST 2009

2010

INTRODUCTION TO THE
BIOA AGREEMENT COUNTER-POLLUTION MANUAL

1.3.3 The Agreement for *Coastwise Towing* (dated 17 September 1989) (1989, 51 *Int'l Trade Law* 103) is a bilateral agreement between the United States and the Republic of the Philippines. The Agreement provides for the towing of U.S. flag vessels by Philippine flag vessels in the Philippine Sea Area. The Agreement also provides for the towing of Philippine flag vessels by U.S. flag vessels in the Philippine Sea Area. The Agreement also provides for the towing of U.S. flag vessels by Philippine flag vessels in the Philippine Sea Area. The Agreement also provides for the towing of U.S. flag vessels by Philippine flag vessels in the Philippine Sea Area.

Deepwater Horizon Mechanical Recovery System Evaluation

rim Report

TECHNICAL REPORT 1143
MAY 2013

Tidal Inlet Protection Strategies (TIPS)
Phase 1—Final Report

API TECHNICAL REPORT 1153-1
JANUARY 2014

and Bioremediation of

Is and Managers

 Bonn Agreement
Accord de Bonn

Bonn Agreement Aerial Operations Handbook, 2009

PART 1: GENERAL

Section and Baseline Sediments

Work Package 5: Common Operating Picture

Recommended practice for Common Operating Picture architecture for oil spill response

FINAL REPORT

An Assessment of Surface Surveillance Capabilities for Oil Spill Response using Airborne Remote Sensing

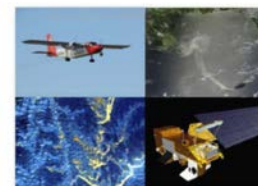
Provided for IPIECA and OGP



Abstract. This report provides an assessment of airborne surveillance for oil spill response, carried out for IPIECA and OGP under contract OSR-JIP Polar 001.

JIP SMV: WP 2 Final Report Surface Surveillance Capabilities for Oil Spill Response using Remote Sensing

Provided for IPIECA and IOGP



This report provides the key recommendations from WP 2, with respect to enhancement of surface surveillance capabilities for oil spill response using both airborne and space-borne platforms. It is the final report from the steering committee. All findings and recommendations have been reviewed by the steering group and have been included by consensus. The findings from a real-world response exercise supported by current responders are provided in an Appendix.

31 March 2015

WP 2 Steering Committee:

Richard Evers (WP 2 Chair, Shell Petroleum Development Company of Nigeria Ltd.), Roger Abet (Shell Exploration & Production Company), Louis Demargne (Fugro Geospatial B.V.), Dominique Dubourg (Total), Ole Grubæk (European Space Agency), Richard Hall (StatOil).

Mention NEBA!!

An Assessment of Surface Surveillance Capabilities for Oil Spill Response using Satellite Remote Sensing

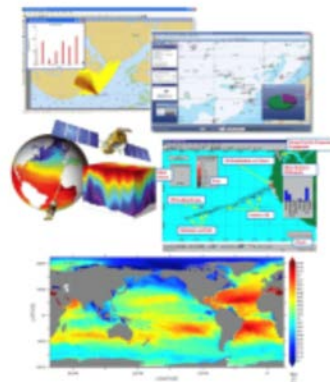
Provided for IPIECA and OGP



Abstract. This report provides an assessment of satellite surveillance for oil spill response, carried out for IPIECA and OGP under contract OSR-JIP Polar 001.

10 April 2014

Kim Partington
Polar Imaging Limited



Inter-comparison and validation in-situ of oil spill drift model

Final report

Capabilities and Uses of Sensor-Equipped Autonomous Oceanographic Vehicles for Subsea Detection & Tracking of Oil Spills

BP Crisis & Continuity Management (C&CM)
Safety & Operational Risk Group

November 2012



<http://oilspillresponseproject.org/>

Both planning for and responding to an oil spill needs oceanographic services to be successful.

There are many opportunities for improvements. The documentation published to date gives us a start but there is still along way to go.

Net Environmental Benefit is our goal, but to do that is a big job. We need partnerships, transparency and speed!

Many commercial and research opportunities exist but are made difficult because of the rarity of an oil spill.

Check out NEBA and COP for some really interesting problems currently faced by the industry





Useful Links:

- Link to the Oil Spill Response Toolkit for Members <http://osrl.cotoco.com/>
 - From videos showing the capping stack to contingency planning to field guides.
- IOGP/IPIECA JIP - <http://oilspillresponseproject.org/>
- API JIP - <http://www.oilspillprevention.org/>
- Link to the Subsea Well Project <http://subseawellresponse.com/>
- ITOPF webpage and information guides <http://www.itopf.com/>
- UK Premium Page <https://www.cefas.co.uk/premium.aspx?RedirectMessage=true>

www.oilspillresponse.com



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<https://uk.linkedin.com/pub/liam-harrington-missin/30/633/63a>