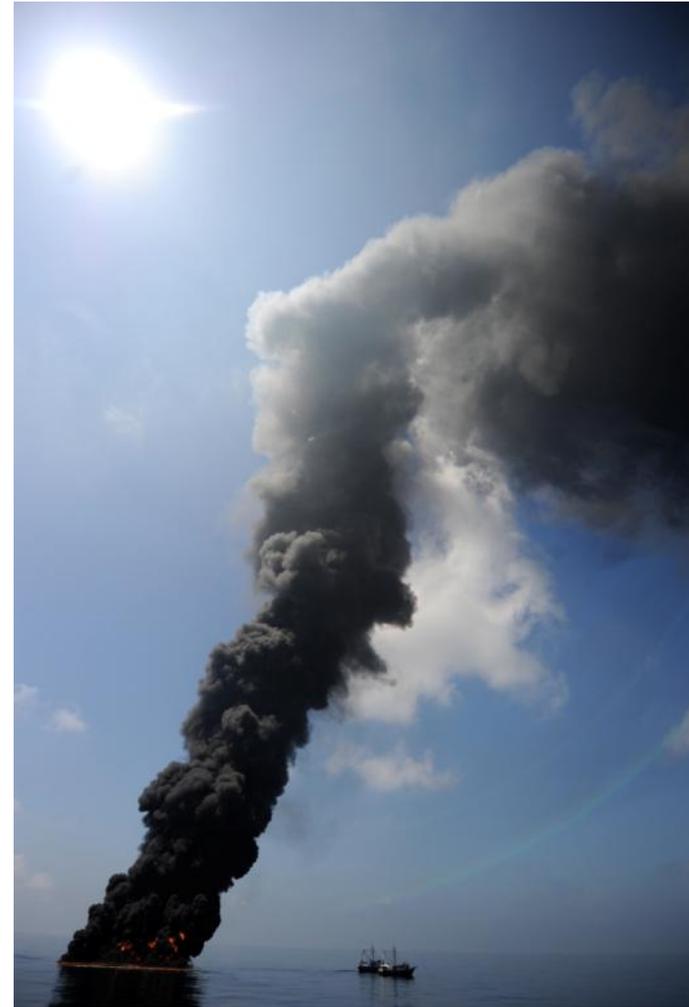




In Situ Burning *The Oil Industry's Response*

Session Overview

- ▶ In Situ Burn – the back story
- ▶ Structuring a solution
- ▶ Implementing ISB capability
- ▶ Global ISB capability
- ▶ Next steps / challenges



ISB – Not A New Strategy

▶ Montara incident in Australia

- ▶ 1.2M - 9M bbl
- ▶ Ongoing release - 74 days
- ▶ ISB not carried out however unintended 3 day fire suggested burning could be effective



▶ Gulf of Mexico (Macondo) incident

- ▶ Estimated 4.9M bbl released
- ▶ Ongoing release - 87 days
- ▶ 411 burns carried out
- ▶ 5% estimated to have been burnt = 245'000 bbl
- ▶ Conclusions:
 - ▶ ISB can be a proven response option



- ▶ Re-examination by industry of an operator's ability to respond in the event of an oil spill incident or well blowout following significant incidents
- ▶ ISB was one response option put forward for consideration

Industry Response (official investigation)

► USA

└─▶ Oil And Gas Industry (API)

└─▶ JITF (Joint Industry Task Force)

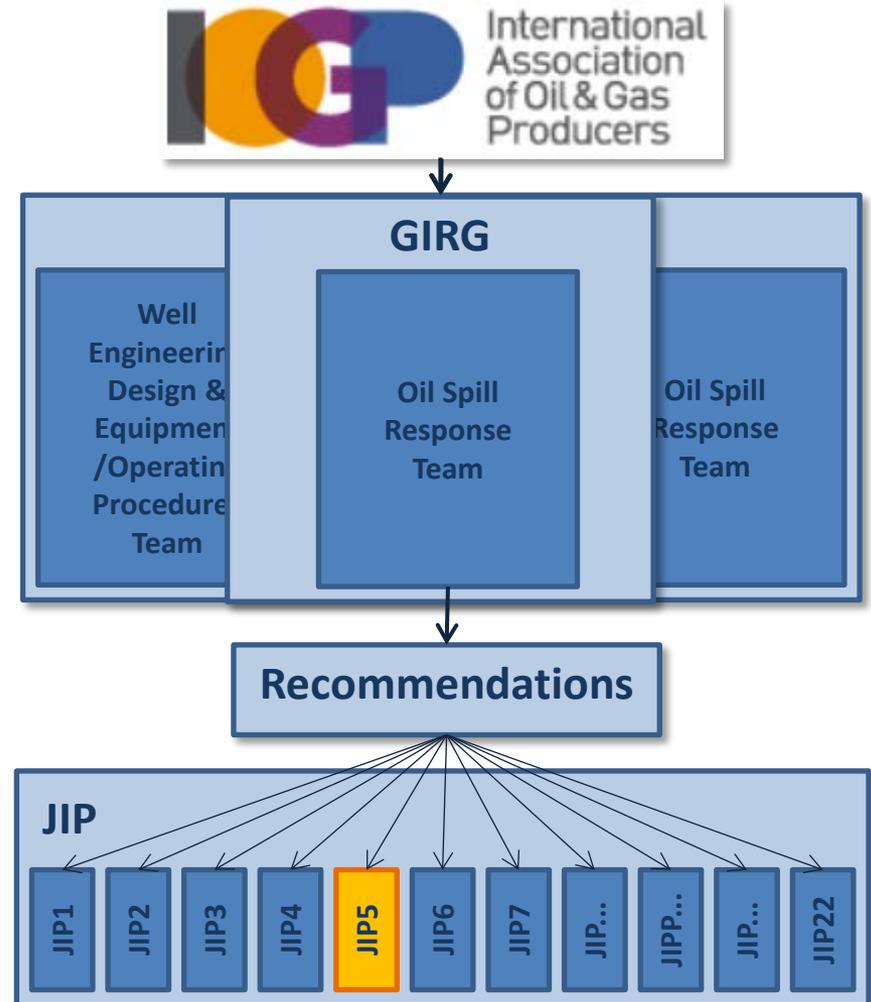
► International

└─▶ Oil And Gas Industry (IOGP)

└─▶ GIRG (Global Industry Response Group)

International Response – Establishing The JIP

- ▶ International Association of Oil & Gas Producers (IOGP) forms the Global Industry Response Group (GIRG)
- ▶ GIRG tasked with identifying learning opportunities on cause of and the response to Macondo and ensuring that they are applied Globally
- ▶ GIRG delivers recommendations for oil industry action.
- ▶ Recommendations addressed via a three-year Joint Industry Project (JIP)
- ▶ Maintain links with other industry Associations



Oil Spill Response JIP Phase 1 Overview

Project	Discrete OSR Projects
JIP 5	In-Situ Burning (→ GPG)
JIP 6	Upstream Risk Assessment
JIP 7	Effective Exercises (→ GPG)
JIP 9	Tier 2 / Tier 3 Assessment
JIP 13	Responder Indemnity
JIP 15	Responder Management
JIP 17	Decanting Procedures
JIP 18	Resp. Health & Safety (→ GPG)
JIP 19	Oil Characterisation
JIP 20*	<i>Design Global Wildlife System (Ph.2)</i>
JIP 21*	<i>Design Incident Mgmt. System</i>
JIP 22*	<i>Design Comms / Outreach Strategy</i>

Project	Dispersant
JIP1	Dispersant Education
JIP2	Sub Sea Injection lab testing
JIP3	Dispersant Logistics
JIP4	Dispersant monitoring
JIP 14	Airborne Dispersant Platform

Project	Common Operating Picture
JIP 8, 10, 11, 16	7 work packages under common theme of Surveillance, Modelling & Visualisation

Project	Good Practice Guides
JIP 12	(Re-)write IOGP / IPIECA Good Practice Guides (24 titles)

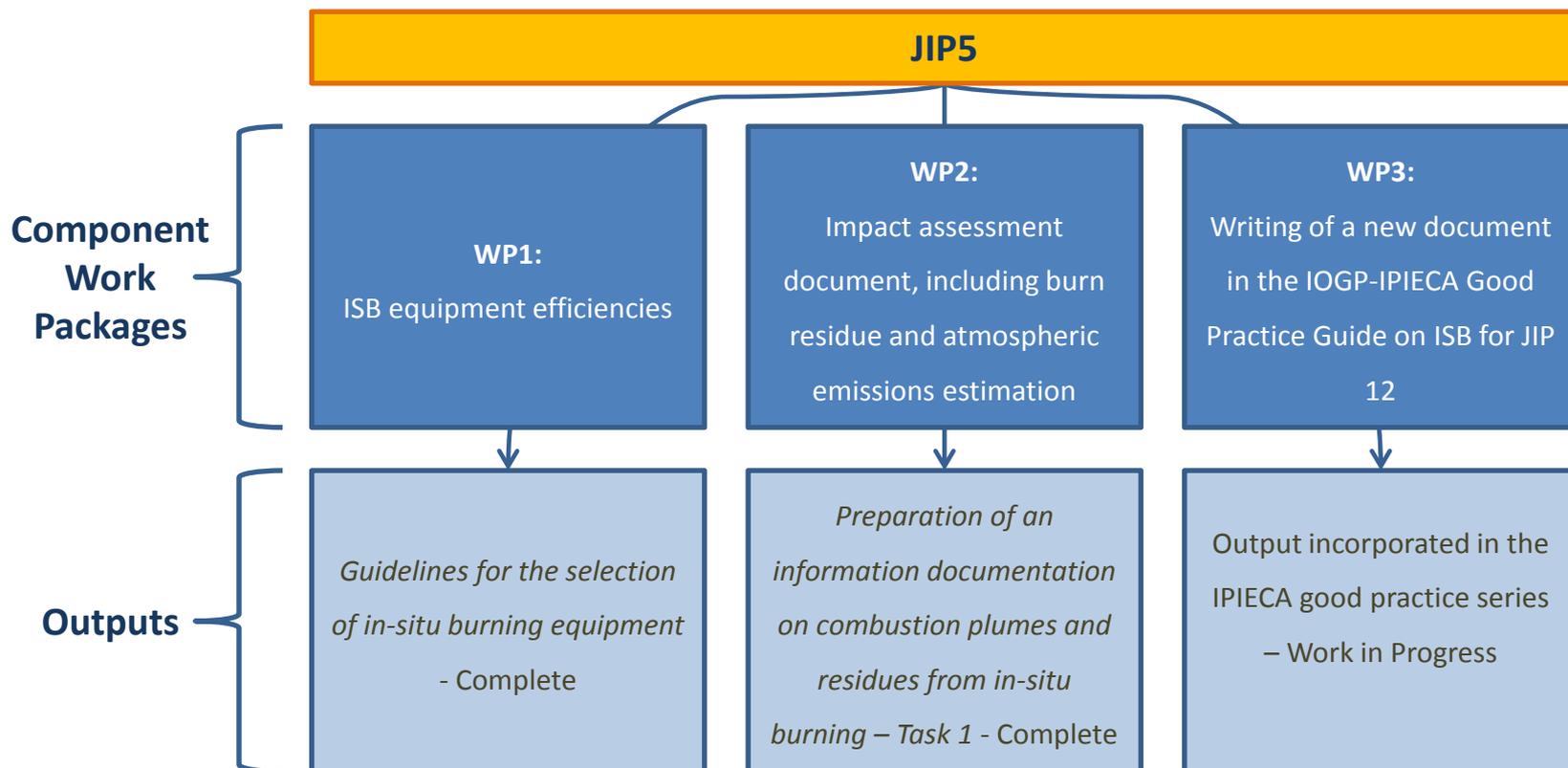
* = New projects outside original scope – precursor for JIP phase 2

OSR JIP

- ▶ Three year project (2012 – 2014)
- ▶ Funded by nineteen oil industry members
- ▶ Aims to improve co-ordination between the many groups working global oil spill response issues
- ▶ Develop a range of documents, global protocols and standard implementation techniques
- ▶ Managed by IPIECA on behalf of the OGP in recognition of its long-standing experience with Oil Spill Response matters



Status Of JIP 5 – In Situ Burning



Practical Implementation – The OSRL story

► Practical Considerations

- Guidance Document
- Safety Plans
- Monitoring Protocol



► Equipment – Tier 3

- 4 sets of 2nd generation Elastec *Hydroboom* purchased in 2011 (3 x Southampton 1 x Singapore)
- 3 sets of Elastec *Pyroboom* in Fort Lauderdale base



Practical Implementation – The OSRL story

► Operational Guidance

- Field Guide



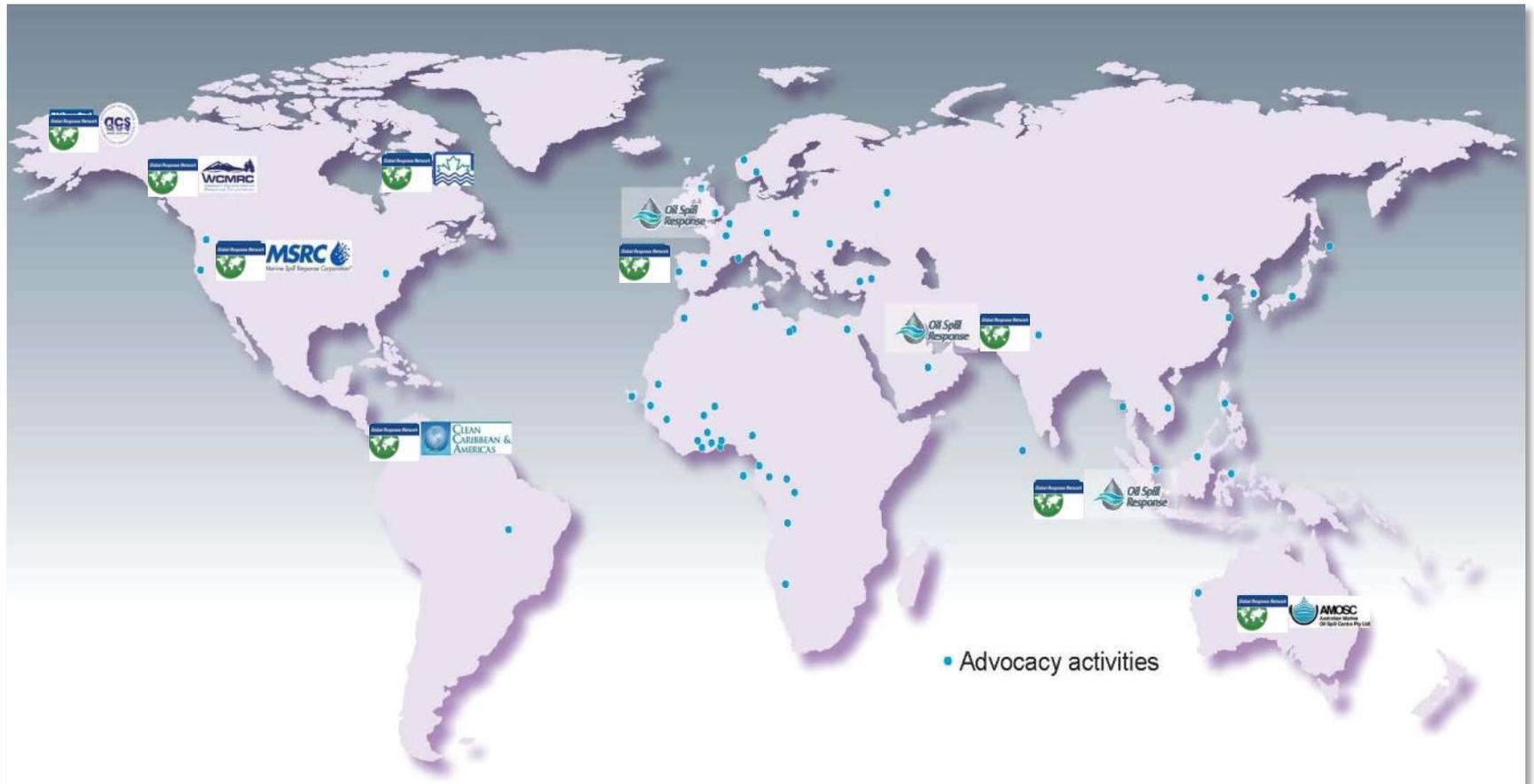
► Training

- All operational staff trained in ISB theory and practical deployment



- Where possible we knowledge share, collaborate and use joint training opportunities pursued through our Global Response Network

The Global Response Network



itac: Industry Technical Advisory Committee
for oil spill response



Global ISB Capability

Owner	Total Fire Boom - Metres
Alaska Clean Seas (ACS)	5,750
BP	1,500
Chevron Cabinda	305
WCMRC	150
ConocoPhillips	305
ExxonMobil	150
MSRC	6,850
Oil Spill Response Limited – Southampton	800
Oil Spill Response Limited – Singapore	400
Oil Spill Response Limited - Fort Lauderdale	455
Petrobras	1,250
Shell	305
STH Algeria	1,525
Total	19,745

Challenges

► Regulatory

- Permissions
- JIP Documents

► Experience

- Legacy
- Developing skills



Next Steps

► Arctic

- An effective option
- Arctic JIP (Projects 7,8 &9)



► Continue OSRO collaboration to:

- Validate operational protocols
- Realise knowledge sharing and training opportunities

Conclusion

- ▶ Industry remains committed to making continued progress in collaboration with a wide range of stakeholders.
- ▶ Industry looks forward to further advance Industry's prevention, containment, preparedness and response capabilities and to work closely with government agencies to achieve common objectives.



Staying in touch

www.oilspillresponse.com

Subsea Well Intervention Service

- ▶ www.swis-oilspillresponse.com
subseaservices@oilspillresponse.com

Training courses

- ▶ www.oilspillresponsetraining.com
training_uk@oilspillresponse.com
training_sg@oilspillresponse.com

Spill preparedness (Technical handbooks and other reference materials)

- ▶ osrl.cotoco.com
preparedness@oilspillresponse.com

Find us on

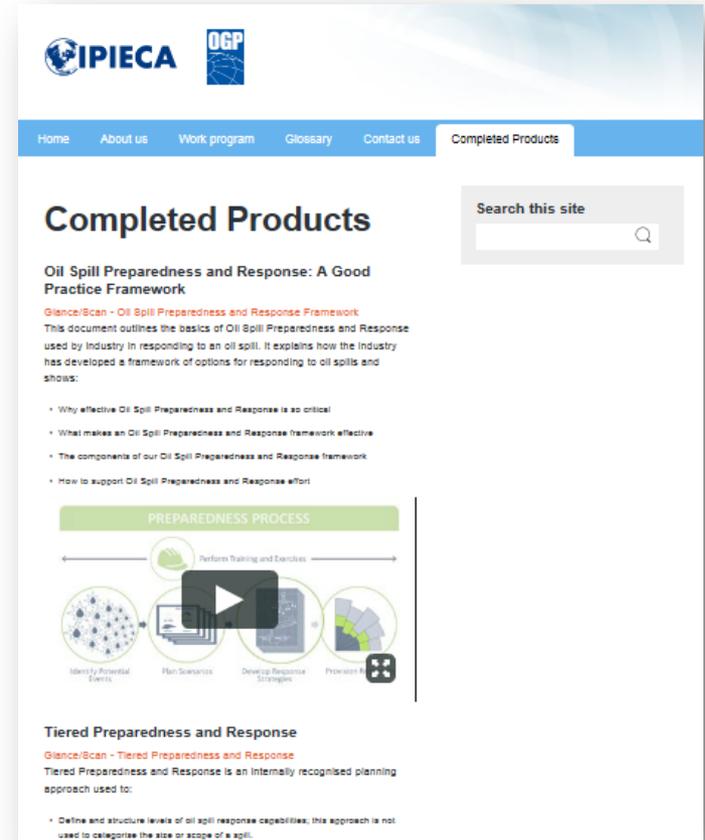


- ▶ www.facebook.com/OilSpillResponseLimited
- ▶ www.linkedin.com/company/oil-spill-response-ltd
- ▶ www.youtube.com/user/OilSpillResponseLtd
- ▶ www.twitter.com/oilspillexperts

Accessing JIP Outputs

- ▶ Scan / Glance material (video and ppt.)

<http://oilspillresponseproject.org/completed-products>



The screenshot displays the 'Completed Products' page on the Oil Spill Response Project website. The page features the IPIECA and OGP logos at the top left, a navigation menu with links for Home, About us, Work program, Glossary, Contact us, and Completed Products, and a search bar on the right. The main content area is titled 'Completed Products' and includes a search bar. Below the title, there is a section for 'Oil Spill Preparedness and Response: A Good Practice Framework' with a sub-heading 'Glance/Scan - Oil Spill Preparedness and Response Framework'. The text describes the document's purpose and lists four key points: why effective O/S preparedness is critical, what makes the framework effective, the components of the framework, and how to support the effort. A 'PREPAREDNESS PROCESS' diagram is shown, consisting of four circular icons: 'Identify Potential Events', 'Plan Scenarios', 'Develop Response Strategies', and 'Perform Training and Exercises'. A play button icon is overlaid on the diagram. Below the diagram, there is a section for 'Tiered Preparedness and Response' with a sub-heading 'Glance/Scan - Tiered Preparedness and Response'. The text describes this as an internally recognised planning approach and lists one key point: defining and structuring levels of response capabilities.

What we do



Preparedness



- ▶ Training
- ▶ Consultancy
- ▶ Oil spill modelling
- ▶ Capability reviews
- ▶ Equipment hire
- ▶ Exercises and drills
- ▶ Secondments



Response



- ▶ Technical advice
- ▶ Spill management
- ▶ Specialist personnel
- ▶ Equipment and transportation
- ▶ Aerial dispersant and monitoring systems
- ▶ Response integration

Membership

Participant Members



46 Participant Members
and over 100 Associate Members