



Oil Spill Response Limited
Caribbean Regional Response Team Meeting; Jan 2017
A global company with a strong regional focus
Presented by Elmer Emeric

Content overview

- ▶ About OSRL
- ▶ Global Service Delivery
- ▶ Response settings
- ▶ Service Level Agreement
- ▶ Response integration
- ▶ Preparedness
- ▶ New developments
- ▶ Feedback



Oil Spill Response



About OSRL

Who we are



- ▶ Largest international industry funded cooperative
- ▶ Owned by major oil and gas production / transportation companies
- ▶ Train and respond effectively anywhere in the world

Our global capability

9 locations worldwide



What we do



Preparedness



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

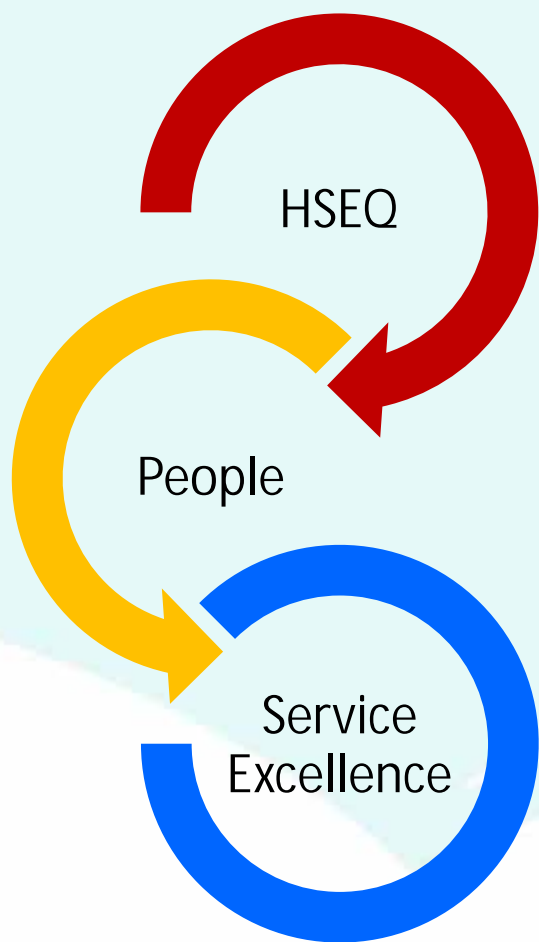


Response



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

Global Service Delivery



- ▶ **Safety Focus**
 - Life Saving Rules
- ▶ **People Focus**
 - Approved Competency Management System (ACMS)
- ▶ **Service Excellence**
 - Response readiness
 - Incident Management Systems (i.e. ICS)
 - Stakeholder Engagement

HSEQ

STOP GO | Life Saving Rules

These Life Saving Rules are a key element in OSRL's continued commitment to create a safe working environment for all our staff, visitors and contractors.

- Safe Working at Height
- Conduct Gas Testing as Required
- Obtain Authorisation Prior To Overriding Safety Systems
- Ensure Safe Systems of Work
- No Working Under the Influence of Alcohol or Drugs
- Perform Safe Lifting Operations
- No Smoking
- Journey Management Plan
- Use PPE
- Safe Driving
- Confined Spaces

Overlooking Safety Risks Lives

► OSRL is committed to a zero accident workplace supported by a culture of continuous improvement which is environmentally sustainable

Our people



Number of staff by technical expertise

Engineering	47
Chemical engineering	8
Marine engineering	19
Environmental sciences	30
General Sciences	21
Geography	6
Marine and oceanography	36
Mechanical engineering	39
Subsea engineering	2
Risk and disaster management	12
Others	40
Business studies	44



Number of staff by educational qualification

Postgraduate and equivalent	55
Degree and equivalent	104
Diploma and equivalent	64
GCE O-levels or A-levels and equivalent	34
Trade certification	47

- ▶ Our personnel are professionals in their respective fields, highly experienced and qualified in key disciplines required for advising and supporting clients in oil spill prevention, response and mitigating the consequences of spills.



Oil Spill Response



Membership

Membership

Participant Members



and over 100 Associate Members

Membership

Associate Members

Addax Petroleum Services Limited
Afren PLC
Amni International Petroleum Development Co. Ltd
Angola LNG
Autoridad de Hidrocarburos de Baffinland I
Bergesen W
BPZ Exploration
Cairn Energy
Cairn India
CATS North
Centrica Ref
CEPPOL (Ie)
Cobalt Inter
Daewoo Int
Dana Petro
Dodsall Hyd
Dolphin Energy
DONG E&P
Dragon Oil
E.ON UK E&
Edison SpA
Endeavour Energy (UK) Limited
Engie E&P International
EnQuest Britain Limited
EOG Resources Trinidad Limited
EOG Resources United Kingdom Limited
EQ Petroleum Developments Malaysia Sdn Bhd
Fairfield Energy PLC
Faroe Petroleum (UK) Limited
Foxtrot International LDC
Galoc Production Company W.L.L.
Gassco AS

Genal Energy Petroleum Services Limited
Gibraltar Port Authority
Libibco Petroleum Barbados

Petrogas E&P Netherlands B.V
Petrojam Limited
Petroleum Company of Trinidad & Tobago Limited (Petrotrin)

Refer to this link for the most updated list

<https://www.oilspillresponse.com/membership/our-members/>

New Age (Iranian) Global Energy Limited
Nigeria LNG Limited
North Caspian Operating Company (NCOC) B.V.
NuStar Terminals NV
Oleoduto Central S.A. (OCENSA)
OMV Exploration and Production GmbH
Ophir Holdings Limited
Oranje-Nassaue Energie UK Limited
Otto Energy Limited
Pan African Energy Tanzania Limited
PetroChad Mangara Limited
Petroci CI-11 Ltd
Petrofac (Malaysia PM-304) Ltd
Petrofac Mexico S.A. de C.V.

Red Sea Operating Company Limited (RSO) (PCO)
TAQA Bratani Limited
Terminales Maritimas Patagonicas S.A. (Termap)
Totalerg SpA
Trinity Exploration & Production Services Limited
Tupras, Turkiye Petrol Rafinerileri AS
Vaalco Energy Inc.
Vermilion REP SAS
Verus Petroleum UK Limited (formally Bridge Energy UK Ltd)
Vivo Energy BV Investment
West Indies Oil Company Limited
Wintershall Holding GmbH
Zenith Energy Bantry Bay Terminal Limited

(RECOPE)
fidomsa)

ia Inc
tima (SASEMAR)

lles (SARA)

Two types of Membership

Participant Member

Associate Member



Coverage of all operations worldwide

Site specific coverage

Supplementary services

Available to Members only



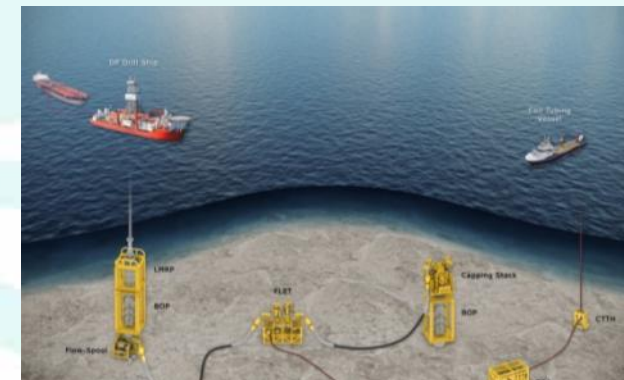
Well capping and Subsea Incident Response Toolkit



Global Dispersant stockpile*



Regional (Tier 2) aerial services



Containment

Supplementary services

Available to Members only



Well capping and Subsea Incident Response Toolkit

Capping Stack System

Brazil -15k psi

Norway – 15k psi

Singapore – 10k psi

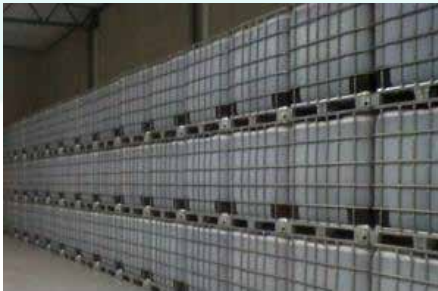
South Africa – 10kpsi

OSPRAG Cap for UK continental shelf only

Aberdeen – 15k psi

Subsea Incident Response Toolkit (SIRT)

Stored in Brazil and Norway



Global Dispersant stockpile*

Global Dispersant Stockpile (GDS)

5,000 m³ of dispersant

(Based upon amount required for 30 days of ongoing response for a large incident, such as a subsea well blowout.)

*additional to SLA

Supplementary services

Available to Members only



Regional (Tier 2) aerial services

WACAF

- ¾ Aerial regional cover in West and Central Africa waters
- ¾ Dispersant capacity of 2,000 litres
- ¾ Includes four 4000-litre dispersant stockpiles

UKCS

- ¾ One Piper PA-31 Navajo for aerial surveillance
- ¾ Dispersant capability provided by Boeing 727 based at Doncaster airport



Containment

Generic containment Toolkit

- ¾ Adequate capture capacity for most subsea well incident scenarios
- ¾ Suitable for international deployment
- ¾ First equipment ready for use

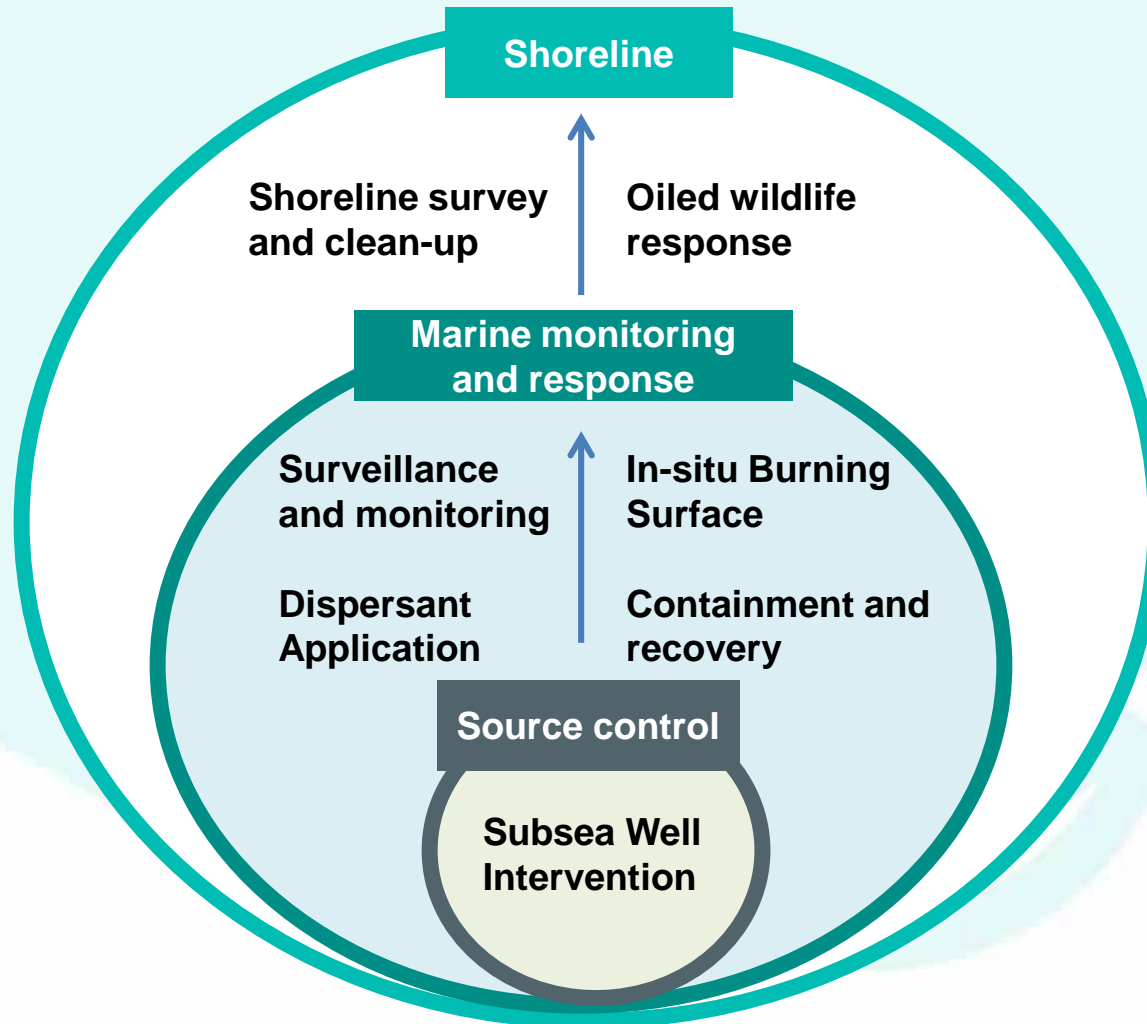


Oil Spill Response



Response settings

Cone of response



Subsea Well Intervention

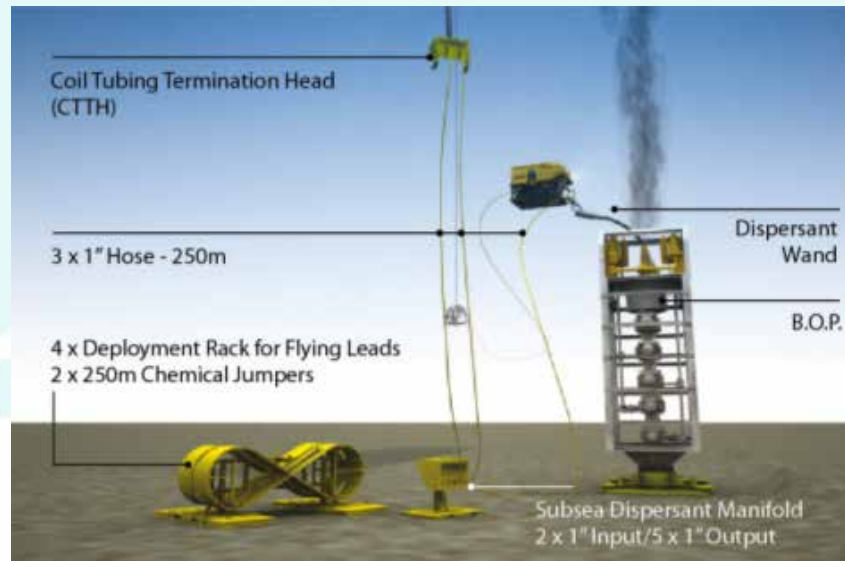
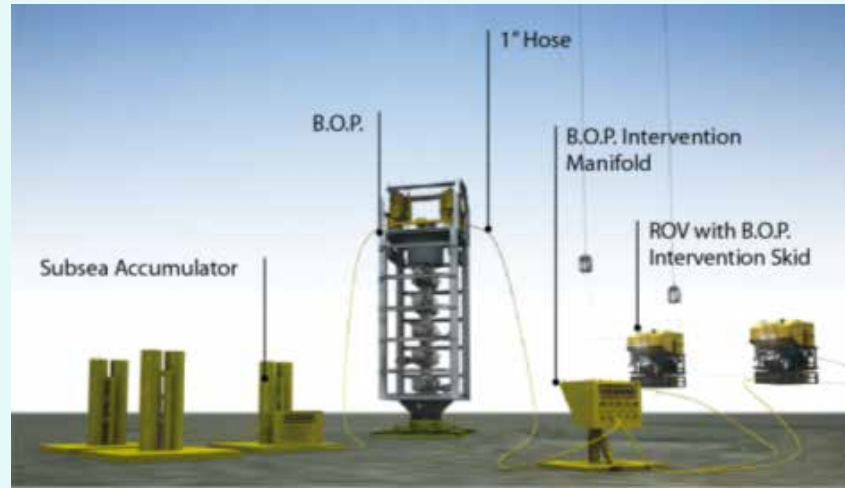
- ▶ Modular system includes capping stacks and intervention equipment
- ▶ Available to members (with a supplementary SWIS agreement)
- ▶ Equipment stored in strategic locations
 - Norway
 - Singapore/
 - Brazil
 - South Africa
- ▶ Dedicated SWIS delivery team



Subsea Well Intervention

Hardware toolkits include:

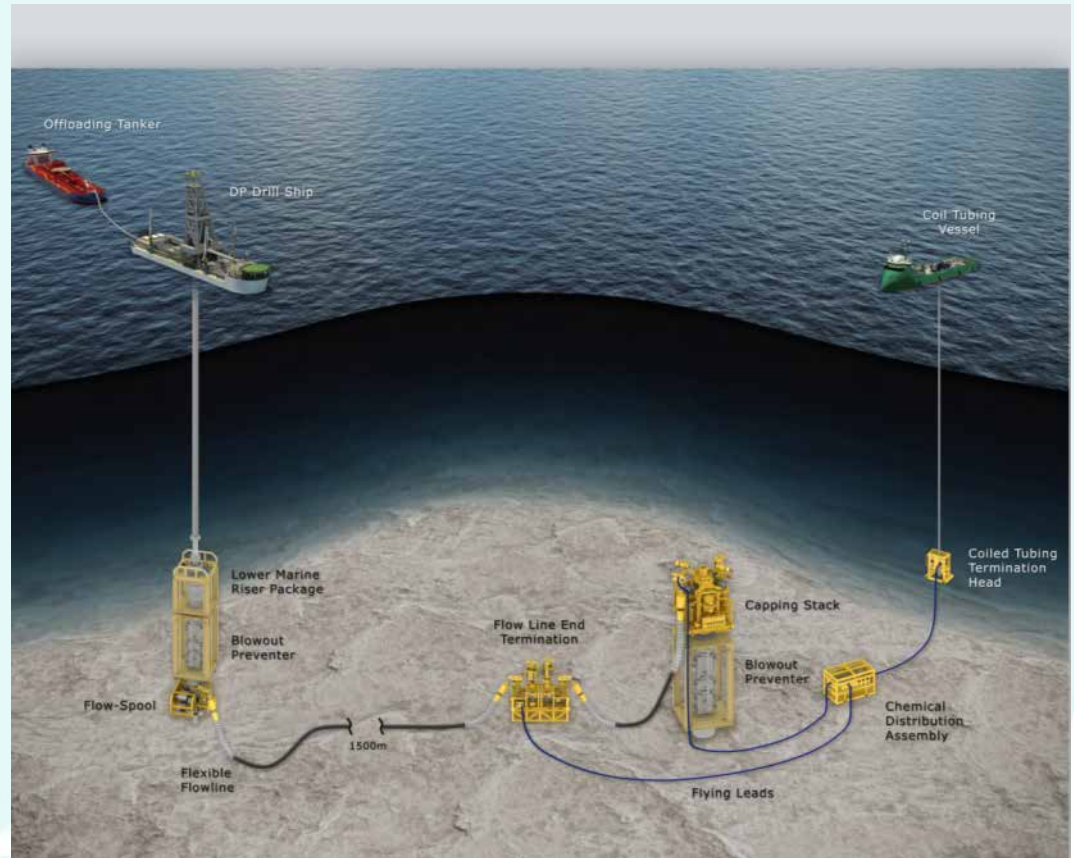
- Tools for site surveys
- Debris clearing equipment
- Flying leads, distribution manifold and dispersant wands
- High pressure, high volume accumulators



Containment

Generic Containment Toolkit

- ▶ Captures fluids from an incident well and flows them to the surface for processing and disposal.
- ▶ The first toolkit available and ready for use.
- ▶ The combined 3 'legs' of the containment toolkit can handle 100K barrels per day.



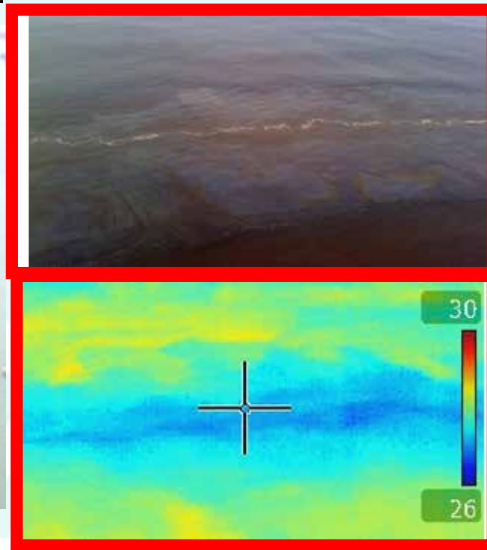
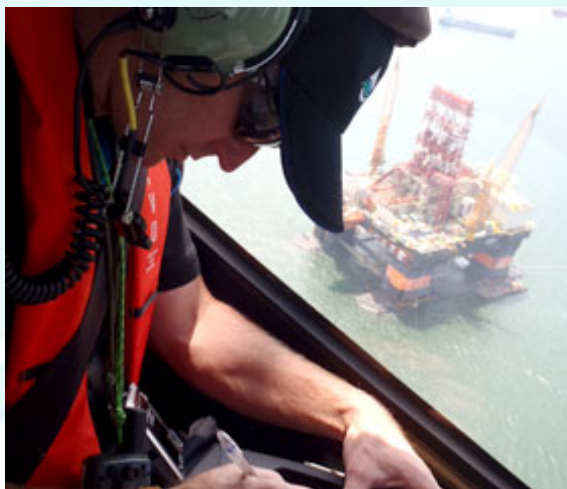
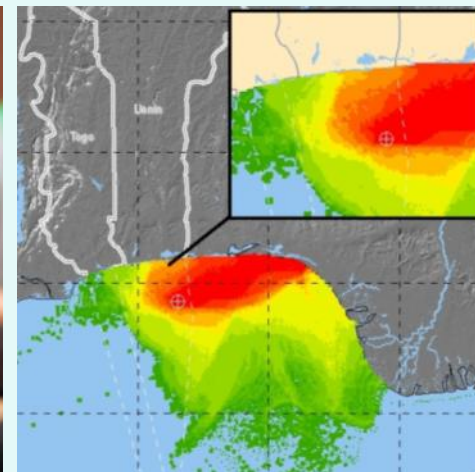
Surveillance and monitoring

Satellite, Aerial Services

- » Global satellite imagery
- » Aerial surveillance services

Modelling

Capability to run surface models and subsea (3D) models to track the movement of oil before wind driven currents act upon its trajectory.



Dispersant application

Vessel mounted and aerial platforms

- Dedicated aircraft (Hercules, 727, Islander)
- Experienced personnel for operation of aerial and vessel dispersant application

Analysis of dispersant application

Determine the effectiveness and environmental impact of dispersant operations

Technical expertise

- Sampling capability
- Use of SMART protocols



Containment and recovery

Surface containment and recovery

- ▶ Temporary storage equipment for recovered oil
- ▶ Large range of recovery devices to suit the oil viscosity.
- ▶ High-volume offshore recovery skimmers also available
- ▶ Equipment is designed for use on most vessels of opportunity



In situ burning

Surface containment using fire resistant boom

- ▶ Controlled burning can be an extremely valuable response technique when responding to an ongoing oil release in open water
- ▶ Need for concentrated oil and means of ignition
- ▶ Monitoring equipment is used when carrying out in-situ burning for the real-time detection of airborne dust, fumes and particulates.



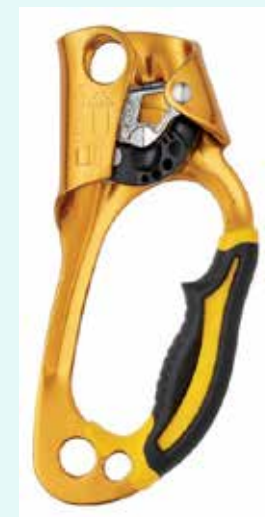
Inland oil spill response

River Response

- Booming
- Damming
- Use of pulleys

Storage and pipeline leaks

- Manual clean-up
- Mechanical recovery
- Sorbents
- In-Situ Burn



Cold Weather Response

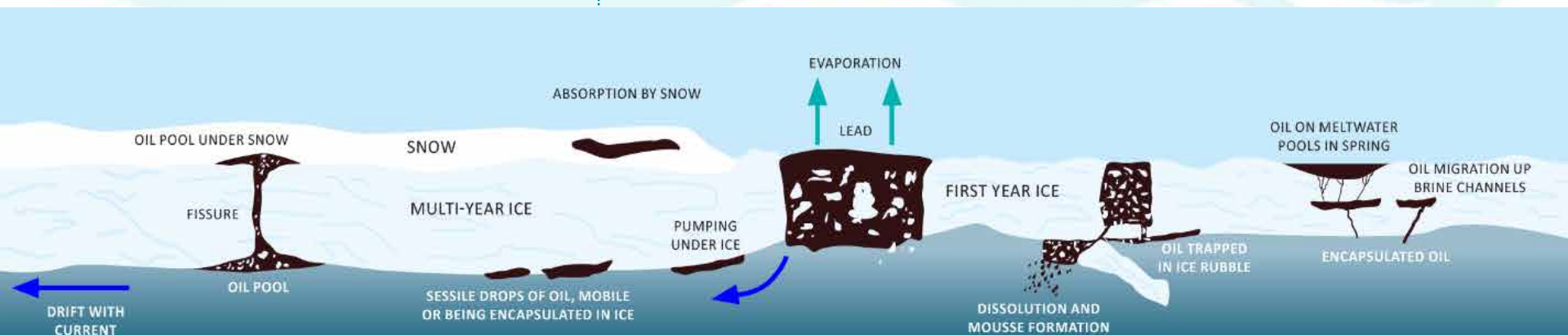
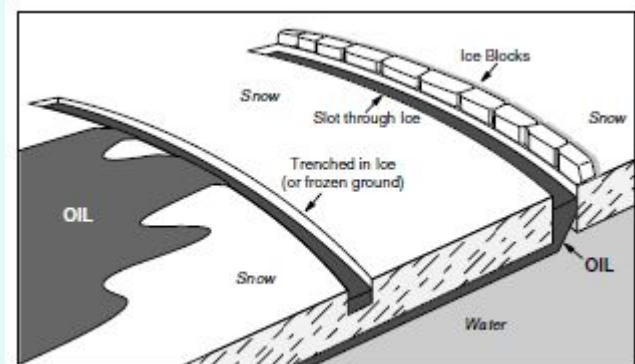
Recovery of oil under ice

- » Drilling
- » Trenching
- » Scraping and pumping

Recovery of oil on ice

- » Berms
- » Boom
- » Trenches
- » Vacuum & Shovels

Heders and In-Situ Burning



Shoreline survey and cleanup

Shoreline Clean-up Assessment Technique (SCAT)

- Identify sensitive resources
- Evaluate shoreline oiling conditions.
- Determine the need for shoreline clean-up and recommend clean-up methods and end points.
- Apply Net Environmental Benefit Analysis

Onsite Cleanup

- Protect sensitive shorelines
- Prepare site for cleaning (minimise secondary contamination)
- Clean up in progressive stages



Oiled wildlife response

Collaboration with the Sea Alarm Foundation

- ▶ SLA 24/7 access to Sea Alarm strategic advice and support
- ▶ Access to global oiled wildlife response groups (currently non SLA)
- ▶ Oiled wildlife response planning and training services
- ▶ ICS wildlife response management support and advice
- ▶ OSRL holds specialist equipment at 4 bases for use by external expertise; OSRL provide logistics only
- ▶ Advocacy role raising awareness globally to oil industry, governments and NGOs





Oil Spill Response

Service Level Agreement

Service Level Agreement

NOTIFICATION Guaranteed response

The Duty Manager will return the call within 10 minutes upon receiving call or notification of incident

TECHNICAL ADVICE Spill Technical Advice & Response Service

Free 24/7 spill management and advice

Up to five personnel can be provided for five days (5x5)

RESPONSE DELIVERABLES Sustained response

Committed level of resources

The SLA clearly states the equipment and personnel which can be deployed.

RESPONSE DELIVERABLES



18 response team members*



Free technical advice (5x5)



~700m³ dispersants
Two aircraft (in SG and UK)



Access to 50 percent of equipment by type



How to activate us

1 Emergency telephone numbers

Available 24 hours a day, 365 days a year

Europe, Middle East & Africa +44 (0)23 8033 1551

Asia Pacific +65 6266 1566

Americas +1 954 983 9880



Free technical advice and response service (Up to 5 personnel for five days)

2 Complete Mobilisation and Notification forms



3 Mobilisation of personnel, equipment and additional resources

4 Debrief and invoice close out

Shared responsibilities



OSRL can:

- Provide technical expertise
- Provide resources and supervisory assistance
- Support operational management at strategic and tactical level
- Adaptable to work within a range of incident management systems

**Efficient
Effective
Response**

Member's logo

The Customer will:

- Fulfil key roles in incident management system
- Assist with customs and immigration
- Identify and arrange local logistics, interpreters, local agency services etc.

Your Nominated Callout Authorities

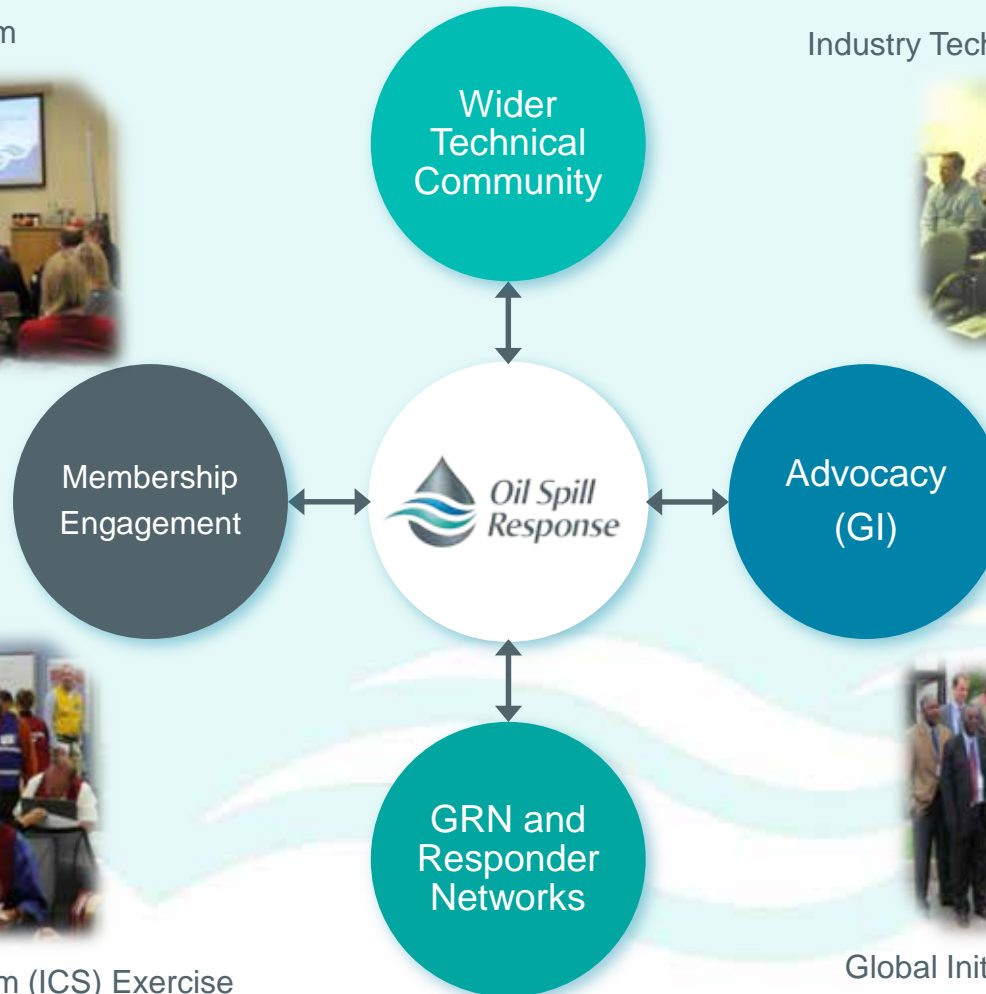
[\[callout and contacts database\]](#)

Stakeholder Engagement

Members' Technical Forum



Industry Technical Advisory Committee



Incident Command System (ICS) Exercise



Global Initiative Workshop, Namibia



Oil Spill Response



Preparedness

Preparedness services

HOW PREPARED
ARE YOU TO
HANDLE A
SPILL?



A tiered and integrated response strategy maximises response effectiveness.

Contingency plans



- » Oil Spill Modelling
- » Risk Assessment
- » Environmental Sensitivity
- » Wildlife

Capability reviews



- » Equipment Management

Training



- » Published courses
- » Client tailored

Secondments



- » Long term or short term specialist support

Equipment hire



- » Long and short term hire contracts
- » Integrated training and maintenance services

You can get technical advice over the phone, outside of a response



Oil Spill Response



Evolving response

Recent developments



Incident Management Systems (ICS)



Boeing 727 response ready



Developing cold weather capability

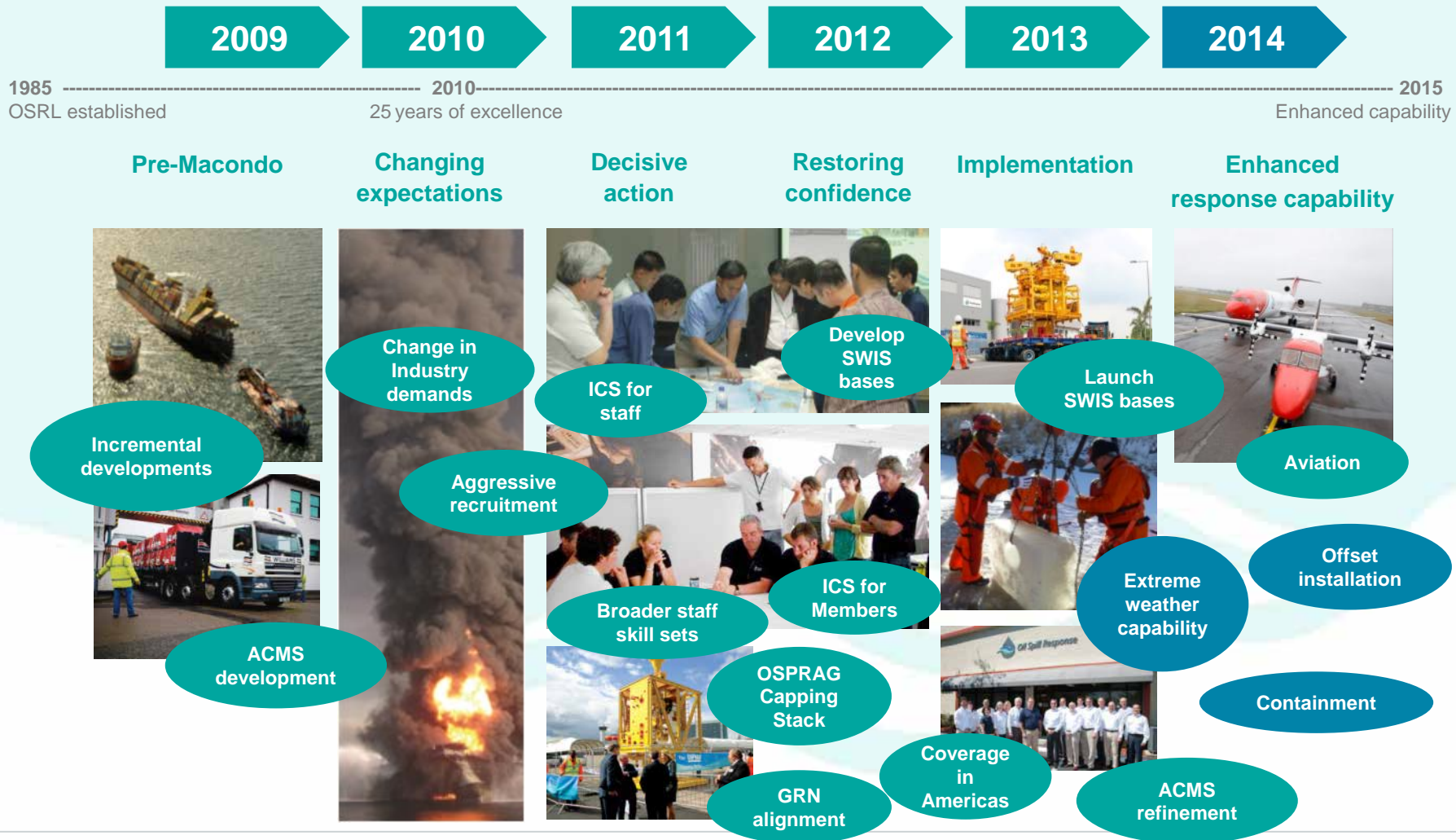


Subsea Well Intervention Services



Global Dispersant Stockpile

Evolving response



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

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