

## ISCO & THE ISCO NEWSLETTER

The International Spill Control Organization, a not-for profit organization dedicated to raising worldwide preparedness and co-operation in response to oil and chemical spills, promoting technical development and professional competency, and to providing a focus for making the knowledge and experience of spill control professionals available to Intergovernmental, Governmental, NGO's and interested groups and individuals

ISCO holds consultative status at the International Maritime Organisation and observer Status at International Oil Pollution Compensation Funds

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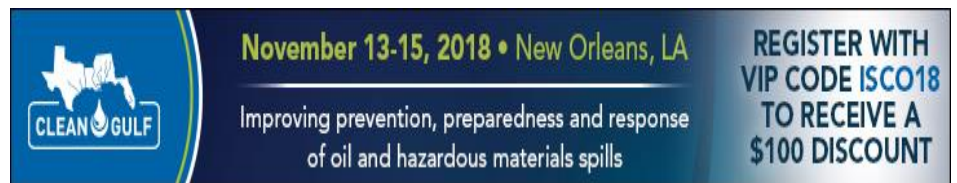
## INTERNATIONAL NEWS

CLICK ON THE BANNERS BELOW FOR MORE INFORMATION ON THE EVENTS FEATURED



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## INTERNATIONAL SPILL ACCREDITATION ASSOCIATION (ISAA) AND UK SPILL PLAN TO LINK THEIR RESPECTIVE OSRO ACCREDITATION SCHEMES.

ISAA has announced that it has entered into a co-operative agreement with UK Spill. Following on completion of lengthy discussions a new joint body called "The International Spill Accreditation Scheme" has been set up to create a unified approach and common standards for the international assessment and accreditation of OSROs.

The UK Government's Maritime & Coastguard Agency (MCA) has recently established a UK National Standard for the accreditation of Marine Oil Spill Response Organisations and has identified the newly formed International Spill Accreditation Scheme and the Nautical Institute as eligible accreditation bodies for assessing OSROs in regard to meeting the new UK standards for OSRO accreditation.

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## INTERNATIONAL NEWS (CONTINUED)

The full implementation of the new UK requirements for OSROs to comply with the MCA accreditation requirements will be delayed by one-year grace period from the 1st November 2018 until the 31st October 2019. During the grace period OSROs accredited under one of the previous schemes (delivered by UK Spill and the International Spill Accreditation Association) will still be recognised by the MCA and OPRED in their review of OPRC plans and OPEPs (respectively) for the purpose of fulfilling the requirement for Tier 2 service provision. See MCA Press Release on Page 5.

## ITOPF IS A FINALIST FOR LLOYD'S LIST GLOBAL AWARDS 2018

October 19 - ITOPF is delighted to have been shortlisted for the Lloyd's List Environment Award – Environmental Programme category. This award honours the institution, company or individual that has done the most to reduce pollution of the marine environment from maritime sources.

The winner will be revealed at a gala dinner on Tuesday 11th December at the Hilton Hotel, Park Lane, London.

## INCIDENT REPORTS (IN CHRONOLOGICAL ORDER)

### USA: TEXAS – CLEAN-UP STILL UNDERWAY AFTER SUNOCO PIPELINE LEAK IN SOUTHWEST ABILENE

October 15 - Crews are still working to clean up the aftermath of a leaking Sunoco pipeline in southwest Abilene.

The leak was discovered during routine hydrostatic testing Sunday. An alarming amount of smelly, vibrant green liquid was observed pooling into Button Willow Creek and Canyon Rock Lake Sunday, prompting numerous citizens to contact police. Police later issued a statement explaining the green liquid was a non-hazardous dye used during the testing.

The Texas Railroad Commission and the Texas Commission on Environmental Quality were notified of the leak and sent teams to investigate. Both agencies confirmed the leak came from a crude oil pipeline, but the TCEQ says monitoring the pipeline is out of their jurisdiction. Big Country / [Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

### KUWAIT KEEPS CLOSE EYE ON OIL SPILL OUTSIDE TERRITORIAL WATERS - EPA

October 16 – Kuwait Environment Public Authority (EPA) said it was following an oil spill monitored by satellite Tuesday west of Kharj Island south-east of Abu Thar oil field, outside of Kuwait's territorial waters.

After receiving a report from the Marine Emergency Mutual Aid Centre (MEMAC) about the oil slick EPA began co-ordination with Kuwait Petroleum Corporation (KPC), Kuwait Oil Company (KOC) and Chevron Corporation to monitor the situation, EPA said in a statement. KUNA / [Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

### USA: NEW JERSEY - FUEL SPILL AT GARDINER AIRPORT REACHES WALLKILL RIVER

October 18 - Approximately 1,000 gallons of aviation fuel from the Gardiner Airport on Sand Hill Road were spilled onto the ground during the weekend of October 6 and 7, with enough seepage into the Wallkill River to alarm residents downstream, according to town officials and the New York State Department of Environmental Conservation (DEC). A cleanup has since been underway.

"On Sunday morning, our Fire Department received a call from the Lazy River Campground about a strong smell of fuel oil or kerosene," said Gardiner Town Supervisor Marybeth Majestic. "The Fire Department went down to the river to investigate...They found the source from the river upstream, tracing it through a culvert to the airport, to a fuel tank that had aviation fuel in it...Apparently, sometime Saturday a plane fueled from this tank, and the nozzle was placed on the ground. The pump was turned off, but the nozzle was left on." HV1 / [Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

### NEW ZEALAND: DIESEL SPILL DISCOVERED IN NELSON RIVER

October 19 - The Wairoa River near Nelson Airport has been glistening for all the wrong reasons this week. Harry Pearson first reported a "diesel sheen" in the water at the start of the Great Taste Cycle Trail to Nelson's pollution hotline on Wednesday night. Stuff.co.nz / [Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

### URUGUAY RIVER – TANKER AGROUND

October 24 - Product tanker FLYOZ ran aground in the evening Oct 22 on 177 kilometer mark river Uruguay river, downstream from Concepcion city, while en route from La Plata Argentina to Concepcion. As of 1400 UTC Oct 24, tanker was still aground, reportedly awaiting contracted for salvage tug or tugs left Buenos Aires. No leak was reported. Fleetmon / [Read more](#)

### USA: SUNKEN OIL PLATFORM COULD BE LEAKING 30,000 GALLONS OF OIL DAILY INTO GULF

October 25 - A major oil spill in the Gulf of Mexico is raising new concerns, even though it has been an issue for the last 14 years.

It started in 2004, after Hurricane Ivan caused a 'Taylor Energy' oil platform to sink in the Gulf of Mexico. Since then, a court document filed Friday by the government estimates 10,000 to 30,000 gallons of oil has been leaking from the site daily.

Senator Bill Nelson addressed possible implications of the spill at a rally Wednesday in Pensacola. "Lord help us if the winds catch it and start bringing it to the east," said Nelson. "Because that means it'll be blackening our beaches." Wear TV / [Read more](#)  
Another report in [NBC 15](#)

### USA: RESPONDERS MONITORING OIL SPILL ON COLUMBIA RIVER

October 25 - State and federal officials are responding to an oil spill on the Columbia River between Oregon and Washington.

Coast Guard officials said the oily sheen was estimated at about 3 miles long Wednesday afternoon and appeared to be dissipating since it was first reported that morning. Officials said the source of the spill was no longer actively discharging into the river and pollution responders also determined that the oil was too thin to recover. The Seattle Times / [Read more](#) Another report in [gCaptain](#)

### PAKISTAN: OIL SPILL REPORTED NEAR KARACHI'S MUBARAK VILLAGE



October 25 - Oil has spilled into the Arabian Sea near Mubarak Village, causing environmental hazards in the area.

Moazzam Khan, a technical advisor to the WWF Pakistan, told Geo that the oil might be leaking from a nearby refinery.

WWF teams are inspecting the site of the oil spill. According to reports, a large sea area, including rocks, is affected by the oil. The News.com / [Read more](#) Another report in [Mangobaaz.com](#)

### AUSTRALIA: AUGUST INCIDENTS REPORTED BY AMSA

September 25 - A total of 34 domestic commercial vessel incidents were reported to AMSA in the month of August. Of these, 12 were serious. You can view the list of incidents at <https://www.amsa.gov.au/news-community/news-and-media-releases/august-incidents>

## NEWS REPORTS FROM AROUND THE WORLD (COUNTRIES LISTED IN ALPHABETICAL ORDER)

### BENIN: STRENGTHENING OIL SPILL RESPONSE

October 24 - The GI WACAF project – a collaboration between the International Maritime Organization (IMO) and IPIECA\* – helps build capacity for oil spill preparedness and response in West, Central and Southern Africa. This week (22-25 October), Benin is hosting a GI WACAF workshop in order to strengthen its national oil pollution contingency plan.

Despite its limited shoreline, the country is exposed to oil spill-related risks – mainly because of the high number of oil tankers operating off its coast in the Gulf of Guinea and transiting through the Port of Cotonou. This is why, in 2006, the country established a national oil pollution prevention, preparedness and response scheme to protect the marine environment. This scheme now needs to be updated and adapted in light of new challenges and recent administrative reorganisation.

Participants from relevant national authorities are being trained on the National Oil Spill Contingency Plan (NOSCP), which includes testing it using a table-top exercise. The lessons learned from the exercise, as well as the findings of previous workshops and exercises, will provide a basis to further update the NOSCP.



Held in the country's economic capital, Cotonou, the workshop follows a series of similar events organised by the Beninese authorities throughout 2018 with a view to enhancing the national contingency plan. It is hosted by the Ministry of Infrastructure and Transport of the Republic of Benin and the Merchant Navy.

Clément Chazot et Émilie Canova, respectively head and coordinator of the GI WACAF project, are representing IMO during the event. Two consultants from the Centre of Documentation, Research and Experimentation on Accidental Water Pollution (CEDRE) are also present.

\* The global oil and gas industry association for environmental and social issues <http://www.imo.org/en>

### **CANADA: EXTREME COLD WEATHER SPILL RESPONSE TRAINING COURSE**

October 27 - Extreme cold weather spill response is like no other response. This course looks at the fundamentals of spill response and applies it to the cold weather environment, taking a different approach to safety, environmental influences and unique response techniques.

Taught by our experts in cold weather response, alongside those in Eastern Canada Response Corporation (ECRC - SIMEC), and conducted in an extreme cold weather environment, this course will give you the tangible experience and skills to perform unique response techniques in a unique environment.

The course is delivered with the participation of ECRC, sharing their wealth of knowledge and 20 years experience working in cold climates. OSRL & ECRC are members of the Global Response Network (GRN) which exists to share information, improve spill response performance and provide centres of expertise in spill preparedness, response and recovery techniques.

This training course is scheduled to take place in Quebec, Canada on 14-18 January 2019 [More info](#)

### **JAPAN: PAJ OIL SPILL WORKSHOP "RECENT OIL SPILLS & FUTURE PREPAREDNESS".**

This event will take place in Tokyo on 28<sup>th</sup> November 2018. The tentative speakers list includes • International Tanker Owners Pollution Federation (ITOPF) • Oil Spill Combat Team (OSCT) • International Oil Pollution Compensation Fund (IOPCF) • Oil Spill Response Limited (OSRL) • Petroleum Industry of Malaysia Mutual Aid Group (PIMMAG)

Organizer : Petroleum Association of Japan (PAJ) Language : English & Japanese (with simultaneous interpretation) [More info](#)

### **KENYA: WHAT NEEDS TO DO TO BETTER PROTECT THOSE WORKING IN THE OIL SECTOR**

October 24 – An article published in MENA FN comments on Kenya's developing oil industry. The writers are quite critical of the country's preparedness for responding to oil spills and pollution. Here is an extract –

"A key concern for communities in the Turkana area is how waste and pollution will be managed. This includes; the disposal of drill cuttings, reduced air quality due to flaring of gas and negative impacts on human and animal health.

There's also concern over the technology used to handle hazardous waste as it doesn't meet the standards of those in other countries. For instance, most waste oil treatment facilities don't meet international standards and are run by the informal sector.

Trying to deal with these risks is challenging and there are significant gaps in policies and laws.

For example, there's a general requirement that contractors be prepared in case of an emergency – like a fire. But there's no direction of who is responsible for what and the procedures that must be followed. Kenya's National oil Spill Contingency Plan is meant to make this clearer, but it has been in draft form for over four years.

There also needs to be clarity on who is responsible for damage incurred as a result of oil spills or other pollution. Currently the Kenya Maritime Authority is responsible for coordinating this, but they are a maritime agency – authority should rest with the National Environment Management Authority". [Read the complete article](#)

### **TURKEY: SUPPORTING TURKEY ON IMO LIABILITY TREATIES**

October 25 - An IMO workshop for Turkish government and industry officials is set to boost the country's ability to ratify and enforce IMO's liability and compensation regime\*. The event is taking place at the University of Ankara (22-26 October) as part of the master programme at the Ankara University Research Center of the Sea and Maritime Law. It is focused on the specific requirements for each



convention in order for them to be enacted fully into national law.

The regime covers issues such as pollution incidents, wreck removal, carriage of passengers and luggage – providing vital protection in the event of a maritime incident. Countries need to ratify and implement rules and regulations in order for them to be effective.

Participants include representatives from the Ministry of Transport, Turkish Naval Forces and national shipowners' associations. The workshop consists of guest-lectures by IMO, in cooperation with the International Group of P&I Clubs. <http://www.imo.org/en>

\* including treaties covering wreck removal, salvage, carriage of hazardous and noxious substances, passengers, CLC, Fund, Bunkers Convention and limitation of liability.

## UK: NATIONAL STANDARD FOR MARINE OIL SPILL RESPONSE ORGANISATIONS

October 22 - A document outlining standards to be met by organisations delivering Tier 2 response services in the UK. First published on 8<sup>th</sup> June 2018 and last updated on 22<sup>nd</sup> October 2018.

**Details** - The Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention(OPRC)) Regulations 1998 (SI 1988 No.1056) (as amended) state that certain UK ports, harbours and oil-handling facilities and all offshore installations on the UK Continental Shelf must submit OPRC Plans to the Maritime and Coastguard Agency (MCA) (in the case of ports, harbours and oil handling facilities) or the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) (in the case of offshore installations, as defined in the Regulation) for approval.

As part of the approvals process for ports, harbours and oil handling facilities to which the Regulations apply, the MCA require contingency plans to detail the contract they hold with an accredited third-party Tier 2 Oil Spill Response Organisation (OSRO). OPRED similarly require responsible persons of offshore installations to detail in Oil Pollution Emergency Plans (OPEPs) any arrangements in place with an OSRO.

Following a consultation with industry on the creation of a UK National Standard for OSROs, carried out between January and March 2018, a final version has been published. The Standard will remain a living document, evolving with the requirements of industry and new best practice guidance, but any new amendments will be based on further dialogue and consultation between the appropriate government departments and agencies, approved Accrediting Bodies and the OSRO industry.

**Grace Period** - The amendment to the OPRC Guidelines for Ports and the Guidance Notes for Preparing Oil Pollution Emergency Plans which will enforce the requirement for ports, harbours, terminals and offshore installations with a statutory obligation to be OPRC compliant, to fulfil their Tier 2 response service requirements only by contracting OSROs which are accredited in line with the UK National Standard, has been postponed to the 1st of November 2018. This additional delay was to allow time for the approved accrediting bodies to finalise their schemes of accreditation and for Memorandums of Agreement with the MCA and OPRED for the delivery of this service to be agreed and signed; it was decided that it would be unreasonable to begin the one-year grace period prior to there being an approved scheme in operation. The one-year grace period will now be in effect from the 1st November 2018 until the 31st October 2019. Due to two schemes of accreditation having now received approval, the International Spill Accreditation Scheme (ISAS) and the Nautical Institute (NI), the start of the one-year grace period will not be delayed any further.

During the grace period OSROs accredited under one of the previous schemes (delivered by UK Spill and the International Spill Accreditation Association) will still be recognised by the MCA and OPRED in their review of OPRC plans and OPEPs (respectively) for the purpose of fulfilling the requirement for Tier 2 service provision. Before the end of the grace period OSROs are expected to seek re-accreditation in accordance with the UK National Standard from an accrediting body whose scheme of accreditation has been approved by the MCA and OPRED (currently ISAS and the NI). From the 1st November 2019, OSROs which have not been re-accredited in accordance with the UK National Standard will no longer be recognised by the MCA and OPRED as fulfilling the requirement for Tier 2 service provision for ports, harbours, terminals and offshore installations.

Ports, harbours, terminals and offshore installations whose contingency plans have been reviewed during the grace period and where, during these reviews, the Tier 2 service provision outlined is found not to be accredited in line with the UK National Standard, will have their contingency plans re-assessed upon the conclusion of the grace period. The re-assessment will establish if the port, harbour, terminal or offshore installation's contractor has gained accreditation in line with the UK National Standard or if the port, harbour, terminal or offshore installation has taken on an alternative Tier 2 contractor which has gained the necessary accreditation. If neither of these have taken place, then the port, harbour, terminal or offshore installation will be issued with a Non-Conformity Notice.

The MCA and OPRED will now be accepting applications from Accrediting Bodies wishing to be approved to deliver the UK Standard. Details on the requirements for provision can be found in the final UK Standard document. Proposed schemes of accreditation,

## NEWS REPORTS FROM AROUND THE WORLD (CONTINUED)

detailing how the requirements have been fulfilled should be submitted by email to [ukresponderstandard@mcga.gov.uk](mailto:ukresponderstandard@mcga.gov.uk) or by post to: Counter Pollution and Salvage Branch, Spring Place, 105 Commercial Road, Southampton SO15 1EG

Follow up meetings will be held after review of the proposed scheme by the MCA, at which point a Memorandum of Agreement for the delivery of this accreditation service on behalf of the MCA and OPRED will be signed. The version of the UK Standard published here is Version 1.

Any questions can be submitted to: [ukresponderstandard@mcga.gov.uk](mailto:ukresponderstandard@mcga.gov.uk)

For details on which ports and harbours the OPRC Regulations apply to, see: [The Merchant Shipping \(Oil Pollution Preparedness, Response and Co-operation Convention\) Regulations 1998, Regulation 3: Application](#)

[Download the UK National Standard for Marine Oil Spill Response Organisations](#)

## USA: 14-YR-LONG GULF OF MEXICO OIL SPILL MAY BECOME US' WORST OFFSHORE DISASTER

October 22 - An oil spill that has been leaking millions of barrels since the last 14 years into the Gulf of Mexico has gone unplugged for so long that it was now poised to becoming one of the worst offshore disasters in US history.

Between 300 and 700 barrels of oil per day have been spewing from a site 12 miles off the Louisiana coast since 2004, when an oil-production platform owned by Taylor Energy sank in a mudslide triggered by Hurricane Ivan, The Washington Post reported on Sunday.

Many of the wells have not been capped, and federal officials estimate that the spill could continue through this century.

With no fix in sight, the Taylor offshore spill is threatening to overtake BP's Deepwater Horizon disaster as the largest ever.

Business Standard / [Read more](#)



## USA: OIL SPILL RESPONSE AND MARINE MAMMALS



October 24 - The Marine Mammal Center is a member of the Oiled Wildlife Care Network, which coordinates all oil spill response in the state of California. Our hospital is a primary facility for oiled seals and sea lions, and our staff and volunteers are specially trained to assist if called upon during an oil spill event.

Oil in or on the water is extremely dangerous to wildlife. For instance, when an animal lands in an area affected by oil, it will try to preen or clean itself and ingest the toxic petroleum product, causing severe damage to internal organs. Ingesting oil will greatly disrupt the reproductive process, and animals that have survived oil spills may suffer the long term effects of breeding problems and may produce deformed offspring.

There are different effects on different classes of marine mammals. Heavily furred animals, such as sea otters and fur seals, are more severely affected by oiling because these species rely on their thick haircoat to maintain warmth and buoyancy. The fur traps a thin layer of air adjacent to the animal's skin (in a similar fashion to birds), and this air layer prevents the skin of the animal from coming into contact with the cold ocean water. When exposed to oil, the alignment of the hair is altered; the air layer is destroyed; and mammals rapidly become hypothermic. Marine Mammal Center / [Read more](#)

## USA: INLAND OIL SPILL TRAINING IN BISHOP, CALIFORNIA



*Photo: Field demonstration of (yellow) containment boom deployment along McGee Creek near Bishop, along with discussion of skimming operations and challenges of oil recovery in river systems. Image credit: OSPR.*

October 26 - Over the past 13 years, OR&R's Emergency Response Division has teamed up with California's Office of Spill Prevention and Response (OSPR) to provide oil spill science training known as Environmental Response to Oil Spills (EROS).

And because spill science topics are relevant to both marine and inland spill, OR&R periodically supports inland EROS classes including one on October 23-25 in Bishop, California.

## NEWS REPORTS FROM AROUND THE WORLD (CONTINUED)

The training included students from California Department of Fish and Wildlife game wardens and biologists as well as a staff from local cleanup companies and a public utility power company. The class covered a wide variety of both marine and inland subjects such as oil chemistry, fingerprinting, fate and transport, ecotoxicology, resources at risk evaluations, shoreline assessments ([Shoreline Cleanup Assessment Technique or SCAT](#)), environmental trade-offs, cleanup methods and endpoints, Natural Resource Damage Assessment (NRDA), oiled wildlife capture and care, and waste management. In addition, field exercises included boom deployment demonstrations, SCAT activities and riparian biology and geomorphology. NOAA OR&R / [Read more](#)

## VIETNAM: U.S. PREPARES FOR BIGGEST-EVER AGENT ORANGE CLEAN-UP IN VIETNAM



*Photo: U.S. Secretary of Defense Jim Mattis (R) meets Vietnam's Defence Minister General Ngo Xuan Lich in Ho Chi Minh city, Vietnam October 17, 2018. REUTERS/Kham/Pool*

October 17 - U.S. Defense Secretary Jim Mattis on Wednesday visited a former American air base in southern Vietnam that will soon become the biggest-ever U.S. cleanup site for contamination left by the defoliant Agent Orange during the Vietnam War.

Standing near a skull-and-crossbones warning sign meant to keep people away from toxic soil, Mattis was briefed by Vietnamese officials about the massive contamination area.

In a possible sign of the sensitivity surrounding Agent Orange in Vietnam, where millions of people are still suffering its effects, reporters were not allowed to attend the outdoor briefing for Mattis at Bien Hoa Air Base.

"I came to show the support of the Defense Department for this project and demonstrate that the United States makes good on its promises," Mattis told his Vietnamese counterpart at a closed-door meeting later in nearby Ho Chi Minh City.

Cleanup is expected to start getting under way early next year.

Reuters / [Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

## PEOPLE IN THE NEWS

### ISAA – RETIREMENT OF CHAIRMAN AND APPOINTMENT OF NEW DIRECTORS



Dr Douglas Cormack

Dr Douglas Cormack, an Honorary Member of ISCO and a Founder Member of the International Spill Accreditation Association (ISAA) has decided to step down from his position as Chairman of ISAA. He will however continue as a Member of the ISAA Advisory Panel.

Dr Cormack was former Chief Scientist at the British Government's Marine Pollution Control Unit and head of the UK's first government agency, the Warren Spring Laboratory, Douglas is a well-known and highly respected figure in the spill response community who has over many years made a very substantial contribution to the furtherance of ISAA's mission to raise standards of oil spill response.



Mark Orr

ISAA has also announced the appointment of two new directors to its Board of Directors

The new directors joining ISAA Managing Director John A. Dawes are Mark Orr (Joint Chairman of UK Spill) and Capt. Bill Boyle (Senior ISAA Assessor).

The new appointments follow on the recent announcement concerning the establishment of the International Spill Accreditation Scheme (ISAS) which will unify the ISAA and UK Spill accreditation schemes.



Captain Bill Boyle

## DOCUMENTING DECADES IN OIL SPILL CONTROL: MINIBYTES # 2



THIS IS THE THIRD IN A SERIES OF SHORT ARTICLES BY ALAN A. ALLEN

Allan A. Allen has over five decades of experience as a technical advisor and field supervisor involving hundreds of oil spills around the world. AI is recognised as a leading consultant and trainer involving oil spill surveillance and spotting techniques, the application of chemical dispersants, and the containment, recovery and/or combustion of spilled oil under arctic and sub-arctic conditions.

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### “Efficiency of Response” – Lessons learned from the 1969 Santa Barbara Oil Spill

In 1969, just a few days after the blowout on Platform A in the Santa Barbara Channel, California, I stood on Sterns Wharf, watching crude oil slide into the Santa Barbara Marina. It had been a week since the spill started, and yet the best efforts that seemed possible at that time included a floating string of telephone poles to serve as containment boom and vacuum trucks positioned along the shoreline to suck up oil from the water surface through 4-inch open-ended hoses (photo #1). Shortly after that day, highly “sophisticated” vessel-mounted recovery techniques were deployed (photo #2). Little did I know that the inefficiencies of those response efforts would capture my imagination and set me on a 50-year-long mission to find better ways to contain and remove spilled oil.



Photo #1: Santa Barbara, 1969 – Yahoo.com, Public Domain



Photo #2: Santa Barbara, 1969 – Yahoo.com, Public Domain



Prior to that blowout off Santa Barbara, I had been diving on and measuring flow rates of natural oil seeps in the same region. And so, just for kicks, a very good friend (along with his own small aircraft) and I monitored and photographed the blowout over several weeks. Using the same techniques we had developed to measure natural oil seep flow rates, I had soon come up with estimates of the blowout flowrate. When the oil industry and government agencies learned of these flights, and that my calculations revealed possible blowout release rates ten times greater than their own, I was soon sucked into a media blitz, threats, testimony before a U.S. Senate Subcommittee in Washington, D.C., and years of litigation. When the case was finally over, my estimates proven correct, and the financial settlements reached, I encountered an unexpected strong encouragement to be available as an Oil Spill Specialist for future oil spills. While reluctant at first, I gradually accepted the challenge. I knew, however, that I'd better be much more than just a spill volume estimator; I'd better get serious and focus on ways to improve the "Efficiency of Response"! A whole new career soon evolved. I am hoping that the sharing of that "journey" through these minibytes will be of interest and hopefully of value for you.

In my previous blogs the importance of oil encounter rate was discussed along with an equation for calculating a skimming system's oil **volume** encounter rate. Limitations affecting that rate included the physical characteristics of the skimming system (swath and speed) and the nature and thickness of the oil being accessed. Now it's one thing to be able to access oil quickly, but it's another (as described above) to do it efficiently! Last month I discussed how **throughput** efficiency is the % of oil encountered that is actually skimmed and taken onboard. Depending on the type of skimmer involved, the skills of those operating the skimmer, wind and sea conditions, etc., as much as 50% of the oil encountered could easily slip around, through or under the skimming system. In recent years manufacturers of advancing skimmers have come up with a number of clever systems, including rotating drums and discs with highly oleophilic (or oil-liking) surfaces. Such skimmers have been positioned alongside or within vessels with deflection booms so that throughput efficiencies of 75% to 85% can be achieved. These advancements have also led to **recovery** efficiencies (the % of oil in the oil/water mix taken onboard) that can reach values of 85% to 90% under favorable operating conditions.

In the near future, I will talk about the advancements that have also been realized involving the controlled **burning** of oil on water, and the treatment of oil with **chemical dispersants**. During burning operations, fire-resistant booms are towed behind two boats in a U-configuration to collect 100's to even 1,000's of barrels of oil, after which hand-held or aerially deployed igniters can be dropped into the oil to eliminate most of the oil within an hour or less. Dispersants can be deployed by boat or from aircraft at much higher speeds than vessels involved with skimming or burning. The dispersants modify the oil's physical and chemical properties, allow the oil to break into extremely small droplets, remove the oil from the surface, and accelerate the dispersion and natural degradation of the oil within the water column. The amount of dispersant used is often a very small fraction of the amount of oil that can be dispersed (as little as 5%, or even 1% or less with the latest chemicals).

The efficiencies with which oil can be burned quickly at the water surface, or eliminated with dispersants (typically as high 75% to 95%), often compete with and even surpass the efficiencies discussed above involving the mechanical containment and recovery of oil with skimmers. While such efficiencies are achievable under favorable conditions, there are many operational, environmental and sociopolitical factors that can seriously impact the feasibility and the desirability of implementing the use of burning and dispersants.

Vast amounts of research, seminars, workshops, training exercises, laboratory studies and field trials have been conducted over several decades dealing with the feasibility, efficiency, costs, safety issues, environmental impacts, and overall tradeoffs of these response options. Clearly, those issues are far too complex and controversial to address adequately in monthly mini-blogs. However, I do hope that I can bring about a modest appreciation and basic level of understanding for the science (and even the art) of oil spill prevention and response, and why it is so important to keep our oceans, lakes, rivers, streams and land as clean as possible. I will try to balance these issues with personal stories, fond memories, stupid mistakes, near-death experiences, and lessons learned along my own oily path.

TO BE CONTINUED

## SCIENCE & TECHNOLOGY

### USA: GRAD STUDENT AIYER SHOWS HOW OIL DROPLETS EVOLVE UNDER DEEP-WATER CONDITIONS

*Photo: Aditya Aiyer explains the basic ideas of his research to a fellow student. (Provided by Aditya Aiyer)*

October 11 - Oil, gases, and bubbles jet out together during a deep-ocean petroleum blowout, and the oil quickly breaks up into different-sized droplets. Predicting the sizes of these droplets is critical to determine how long it will take the oil to reach the ocean's surface and the resulting oil slick's size. Aditya Aiyer is developing a new approach for state-of-the-



art models that simulate oil's behavior as it moves through turbulent flows and track the subsequent different-sized oil droplets' breakup and coalescence. The improved simulations of the fate and evolution of oil droplets in deepwater plumes can inform decisions about dispersant application.

Aditya is a Ph.D. student with the Johns Hopkins University's Department of Mechanical Engineering. He is a GoMRI Scholar working on the project Transport and Fate of Oil in the Upper Ocean: Studying and Modeling Multi-Scale Physical Dispersion Mechanisms and Remediation Strategies Using Large Eddy Simulation. Gulf Research Initiative / [Read more](#)

### UK: REMOTE VISUAL INSPECTION: OPPORTUNITIES AND LIMITATIONS

October 17 - Invitation to a Shared Research Project Scoping Workshop - 1st November 2018 at HSE Harpur Hill Buxton SK17 9JN 10:00am – 3:00pm

Visual inspection of tanks, vessels and pipework is a cornerstone of the examination process and is often the primary means of defect detection, sizing and diagnosis. Recent advances in imaging and access technology have meant that replacing the direct human element of visual inspection is now possible, and remote imaging could be used to undertake these parts of the examination process. The use of remote visual inspection is of particular interest in the high hazard industries, where intrusive human intervention, for example vessel entry, could be reduced.

The limitations of the technology have yet to be fully explored, and no meaningful comparison has yet been made with the established standards for visual inspection. Variables such as lighting, sensor and display capability and the impact they may have on defect and corrosion diagnosis, and hence integrity, have yet to be considered.

With this in mind, on 1st November 2018 HSE will be hosting a workshop to discuss the options for shared research regarding the use of remote visual inspection. The workshop, which will be held at HSE's scientific laboratory in Buxton, will provide a forum for discussing concerns and identify opportunities for shared research to address them. The basis on which this research can be undertaken will be a key outcome of the meeting. [Read more and register your interest](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

### USA: AUV DEVELOPED TO TRACK AND MAP OIL SPILLS



*Photo: MBARI researchers released biodegradable dye from the research vessel Paragon (left) while collaborators from the U.S. Coast Guard and other organizations watched from a second boat nearby. Image: Todd Walsh © 2018 MBARI*

October 23 - The Monterey Bay Aquarium Research Institute (MBARI) has demonstrated a new use for its long-range autonomous underwater vehicles (AUVs) - detecting and tracking oil spills.

Working with the U.S. Coast Guard and Woods Hole Oceanographic Institution (WHOI), MBARI engineers outfitted an AUV with fluorometers that can detect oil in water. They then tested the system by simulating an oil spill using non-toxic, biodegradable dye. After instruments on the

AUV detected the plume, the AUV continued on its path, measuring the concentrations of dye within the plume and recording the areas of highest intensity. When the AUV crossed the outer edge of the plume, it automatically turned around and headed back toward the plume. By doing this repeatedly, it was able to track the plume as it drifted through the water for several hours.

The Maritime Executive / [Read more](#)

### INNOVATIVE NEW WOOD SPONGE COULD MOP UP DEVASTATING OIL SPILLS

October 26 - International scientists have created a ground-breaking new sponge made from wood that could one day be used to clean up environmentally damaging spills of oil and -other greasy contaminants. The novel sponge can be squeezed out and reused, is biodegradable and made from renewable resources.

The developers believe the creation could offer a cheap, efficient and non-harmful solution for mopping up oil leaks and greasy discharges in rivers and oceans. Numerous innovative techniques have already been invented to clean oily water, from gravity separation to burning and bioremediation using bacteria. But many of these methods are highly expensive, have -limited efficiency or cause secondary pollution. Xiaoqing Wang and colleagues at the American Chemical Society created the sponge by treating natural balsa wood with chemicals to reduce it to a cellulose skeleton, then adding a hydrophobic coating that attracts oil but not water.

Tested in a mixture of water and silicone oil, it removed all the oil. It has the ability to absorb up to 41 times its own weight, and can endure at least ten cycles of absorption and squeezing. The Scotsman / [Read more](#)

## BUSINESS OPPORTUNITIES

### UK: POLLUTION CONTROL INDUSTRY OPPORTUNITY

Captain Nigel Collingwood writes “After at least 25 years in the Pollution Control industry I feel I should now hang up my clogs and retire. My Company is Edge Enviro Services in the UK, located in the south east of England”. Website: [www.edge-enviro.com](http://www.edge-enviro.com)

In brief: Edge has been trading for over 25 years in the following areas:

#### Marine

- Spill clean-up for oil and chemicals – Marine & Industrial
- MCA and Marine Training for OPRC
- Contingency Planning & Consultancy
- Marine Surveys

#### Industrial

- Complete services to Developers I.e. Contaminated Land Surveys, Flood Risks, Ecological, Bat, Pond and many other services
- Remediation of contaminated land
- Decommissioning of Petrol stations, Chemical plants

#### Manufacturing

- Production of Oil Spill containment booms, Defences, Inflatable all sizes up to 2 metres. HF welded construction. We have supplied customers worldwide with booms, tanks and bunding’s of various sizes.

#### Chemicals

- We have a considerable range of chemicals we can produce, including biological Products and oil dispersants. We still produce several tons of chemicals per month.

Nigel is open to offers or ideas and you can contact him at ‘phone 07966932890 or email [nigel@edge-enviro.com](mailto:nigel@edge-enviro.com)

## RESPONSE EVENTS DURING OCTOBER AND NOVEMBER 2018 (UPDATED)

### UK: MEETING OF IOPC FUNDS GOVERNING BODIES

London, October 29 – November 1. [More info](#)

### SWEDEN: FOURTH INTER-REGIONAL WORKSHOP ON RISK ASSESSMENT TOOLS FOR POLLUTION PREPAREDNESS AND RESPONSE

Malmö, October 30. [More info](#)

### UK & IRELAND: MEETING OF INTERNATIONAL SPILL ACCREDITATION ASSOCIATION

Hillsborough, Northern Ireland, October 31. Further details from John Dawes – email: [johnadawes@btinternet.co.uk](mailto:johnadawes@btinternet.co.uk)

### TURKEY: REGIONAL WORKSHOP & OIL SPILL EXERCISE

Istanbul, November 6-8. Regional Workshop on “Building an Effective National and Regional Preparedness and Response Capacity” in conjunction with an Oil Spill Response Exercise Code Named “Golden Horn-Istanbul” will be organized under the patronage of the Ministry of Transport Maritime Affairs and Communication and Ministry of Environment and Urbanization of Republic of Turkey and in co-operation with Turkish Petroleum (TP) and MEKE Marine; MOIG members; from 06 to 08 November 2018 in Elite World Hotel Istanbul-Taksim in Istanbul-Turkey. During this event MOIG will be holding its General Assembly Meeting on 7<sup>th</sup> November.

[More info](#)

### UK: UK SPILL SEMINAR

Moreton-on-Marsh, November 7. The next Spill Seminar will be held at the Fire Service College, Moreton in Marsh. The programme includes guest speakers from the Environment Agency, ITOPE, and Spillaway on Drones, Magic Potions and Spill Response in today’s world. This is combined with briefings from UKSpill and updates on Accreditation for Spill Responders and a Trade Show. To book your free Delegate place - Contact [info@ukspill.org](mailto:info@ukspill.org)

### GUINEA: NATIONAL WORKSHOP ON SHORELINE RESPONSE TO OIL SPILLS

Conakry, November 12-15. [More info](#)

## RESPONSE EVENTS DURING OCTOBER AND NOVEMBER 2018 (CONTINUED)

### FRANCE: POLLUTIONS ACCIDENTELLES DES EAUX DE SURFACE

Paris, November 13. L'OIEau vous propose, au cours de cette journée, d'échanger sur cette problématique en apportant des éléments de réponse réglementaires, techniques et organisationnels grâce aux nombreux retours d'expériences proposés.

[More info](#)

### OMAN: REGIONAL WORKSHOP- POLLUTION LIABILITY & COMPENSATION

Muscat, November 13-14. The IOPC Funds have been invited to deliver a two-day regional workshop on the international liability and compensation regime for pollution damage in Muscat, Sultanate of Oman. The workshop, organised by the Ministry of Environment and Climate Affairs of the Sultanate of Oman, will take place from 13 to 14 November 2018 and will focus on the legal frameworks for ship-source pollution and the claims-handling process. <http://www.iopcfunds.org/news-events/events/>

### USA: CLEAN GULF CONFERENCE AND EXHIBITION

New Orleans LA, November 13-15. CLEAN GULF brings together all parties responsible for response operations from North America and beyond to hear best practices and build relationships vital to a successful response on land or water. [More info](#)

### UK: WWEM WATER CONFERENCE AND WATER EXHIBITION

Telford, November 21-22. The 8th in the Series of International Water and Wastewater Monitoring events is focused for companies and individuals who are involved with water, wastewater and environmental monitoring. [More info](#)

### JAMAICA: NATIONAL WORKSHOP ON THE INTERNATIONAL LIABILITY AND COMPENSATION REGIME

Kingston, November 27. The IOPC Funds have been invited by the Jamaican Maritime Authority to run a three-day workshop in collaboration with ITOFF. Practical exercises and case studies will be included in the training course. [More info](#)

### FRANCE: POLLUTEC 2018: ECO TRADE SHOW & CONFERENCE

Lyon, November 27-30. The 28<sup>th</sup> International Trade Show for environmental equipment, technologies and services. [More info](#)

### PHILIPPINES: EAST ASIA SEAS CONFERENCE 2018

Iloilo, November 27-30. Carrying the theme, "25 Years of Partnerships for Healthy Oceans, People and Economies: Moving as One with the Global Ocean Agenda", the EAS Congress 2018 is open to a broad range of stakeholders including National and Local Governments, the United Nations system, intergovernmental organizations, bilateral and multi-lateral projects, international financial institutions, non-governmental organizations, civil society organizations, academic institutions, the scientific community, the private sector, and other stakeholders. [More info](#)

### JAPAN: PAJ OIL SPILL WORKSHOP

Tokyo, November 28. Theme: "Recent Oil Spills & Future Preparedness". English & Japanese (with simultaneous interpretation)

[More info](#)

## UPCOMING EVENTS – DECEMBER 2018 ONWARDS (UPDATED)

COUNTRY	2018	TITLE OF EVENT	LOCATION
<b>For more information click on Title of Event</b>			
UAE	Postponed*	<a href="#">RECSO EnviroSpill Conference &amp; Exhibition</a>	Abu Dhabi
UK	Dec. 5-6	<a href="#">Salvage &amp; Wreck Removals Conference</a>	London
UK	Dec 5	<a href="#">Maritime Accidents &amp; Emergencies Summit</a>	London
GERMANY	Dec. 5-6	<a href="#">13<sup>th</sup> Arctic Shipping Summit</a>	Hamburg
TOGO	Dec. 5-7	<a href="#">Workshop on liability and oil spill compensation</a>	Lomé
CHINA	Dec. 6-7	<a href="#">Oil Spill Response Workshop (OSRW 2018)</a>	Beijing
COUNTRY	2019	TITLE OF EVENT	LOCATION
USA	February 4-7	<a href="#">Gulf of Mexico Oil Spill &amp; Ecosystem Conference</a>	New Orleans, LA
SAUDI ARABIA	February 19-21	<a href="#">PetroEnvironment 2019</a>	Al Khobar
FRANCE	March 5	<a href="#">CEDRE Information Day</a>	Paris La Défense

## UPCOMING EVENTS – DECEMBER 2018 ONWARDS (CONTINUED)

USA	March 26-27	<a href="#">SCAA Annual Meeting &amp; Conference</a>	Arlington, VA
USA	April 16-18	<a href="#">Clean Waterways Conference</a>	Cincinnati, OH
AUSTRALIA	May 20-24	<a href="#">SPILLCON 2019 Conference and Exhibition</a>	Perth
CANADA	June 4-6	42 <sup>nd</sup> AMOP Technical Seminar on Environmental Contamination & Response	Halifax, Nova Scotia
CANADA	June 18-20	Clean Pacific Conference and Exhibition	Vancouver BC
USA	October 28-31	Clean Gulf Conference and Exhibition	New Orleans LA
<b>COUNTRY</b>	<b>2020</b>	<b>TITLE OF EVENT</b>	<b>LOCATION</b>
USA	May 11-14	International Oil Spill Conference & Exhibition	New Orleans LA
To request posting of an event of interest to the Spill Response Community please send details to the Editor			

\* Event postponed. New dates will be advised ASAP.

## LINKS FOR DOWNLOADING & READING OTHER PUBLICATIONS

<a href="#">Alga Chronicle</a>	News from Australia on Contaminated Land Remediation	August 2018
<a href="#">AMSA Aboard</a>	News from the Australian Maritime Safety Authority	December 2017
<a href="#">ATRAC Newsletter</a>	News from the Adriatic Training and Research Centre	Sept. 2018 issue
<a href="#">BIMCO Bulletin</a>	Marine and shipping-related news from BIMCO	Sept. 2018 issue
<a href="#">Newsletter from George Holliday</a>	News and commentary on HSE issues from George Holliday	On request email
<a href="#">Bow Wave</a>	Sam Ignarski's Ezine on Marine & Transport Matters	Current issue
<a href="#">Cedre Newsletter</a>	News from Cedre in Brittany, France	July-August 2018
<a href="#">EMSA Newsletter</a>	News from the European Maritime Safety Agency	October 2018
<a href="#">IMO News Magazine</a>	News from the International Maritime Organization	Autumn 2018 issue
<a href="#">IMO Publishing News</a>	New and forthcoming IMO publications	Aug.-Sept. 2018
<a href="#">Intertanko Weekly News</a>	International news for the oil tanker community	October 26, 2018
<a href="#">JOIFF "The Catalyst"</a>	Int'l Organisation for Industrial Hazard Management	October 2018 issue
<a href="#">Maritime Executive Magazine</a>	Often contains articles of interest to the spill response community	March-April, 2018
<a href="#">MOIG Newsletter</a>	News from the Mediterranean Oil Industry Group	October 2018 issue
<a href="#">Nautical Institute News</a>	News from the Nautical Institute	June-July, 2018
<a href="#">Navigate Response</a>	Global crisis communications network for shipping & marine	September 2018
<a href="#">NOAA OR&amp;R</a>	Weekly round-up of news from NOAA's Office of Response & Restoration	Latest issue
<a href="#">OCIMF Newsletter</a>	News from the Oil Companies International Marine Forum	September 2018
<a href="#">OHMSETT Gazette</a>	Oil Spill Response Research & Renewable Energy Test Facility Quarterly	Spring 2018
<a href="#">PEMSEA E News</a>	Healthy oceans, people and economies in the East Asian Seas	August, 2018
<a href="#">Pollution Online Newsletter</a>	News for pollution prevention & control professionals	October 24, 2018
<a href="#">Safe Seas, Clean Seas</a>	Quarterly Newsletter from Maritime New Zealand	July 2018 issue
<a href="#">Salvage World</a>	Quarterly Newsletter of the International Salvage Union	Current issue
<a href="#">Sea Alarm Foundation Newsletter</a>	Oiled wildlife Preparedness and Response news from Sea Alarm	Spring 2018 issue
<a href="#">Spill Alert</a>	Newsletter from the UK Spill Association	December 2017
<a href="#">Technology Innovation News Survey</a>	News from US EPA – Contaminated Site Decontamination	Sept. 1-15, 2018
<a href="#">USA EPA Tech Direct</a>	Remediation of contaminated soil and groundwater	October 1, 2018

Your editor depends on regular receipt of updated links for listed publications. If these are not received, relevant entries will be discontinued.

## INFORMATION FOR ISCO MEMBERS

### PROMOTING ISCO AND YOUR COMPANY ON YOUR EXHIBITION BOOTH

While collecting ISCO Membership Placards at the end of the IOSC exhibition (for later re-issue at other events) a member exclaimed "Oh no, we would like to keep it and put it on our booth at other shows". Displaying the ISCO Membership Placard on your booth indicates your support of an organization dedicated to improving worldwide co-operation and preparedness. Members who would like to have an ISCO Membership Placard should request one by emailing [info@spillcontrol.org](mailto:info@spillcontrol.org)

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