



ISCO NEWSLETTER

The Newsletter of the International Spill Response Community

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ISCO & THE ISCO NEWSLETTER

The ISCO Newsletter is published weekly by the International Spill Control Organisation, a not-for-profit organisation supported by members in 45 countries. ISCO has Consultative Status at IMO, Observer Status at IOPC Funds and is 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 IMO, UNEP, EC and other organisation.

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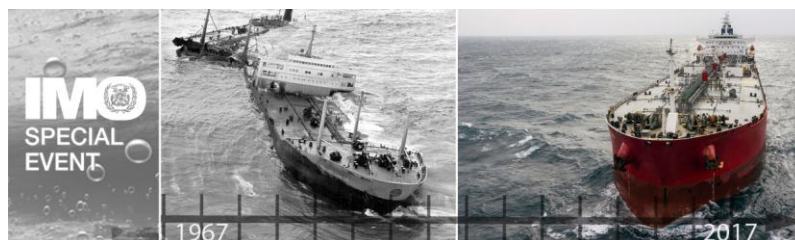
International news

For more information on the events featured below, click on the banners



IMO: 50 YEARS WORKING TOGETHER AGAINST OIL POLLUTION FROM SHIPS

You can now view this special exhibition online



IMO is hosting an exhibition to mark 50 years of successful cooperation between government and industry to achieve a dramatic and sustained reduction in major oil spills from ships; to establish effective systems for preparedness and response if there is an incident and to create a comprehensive mechanism for providing compensation to those affected. It is a story to be proud of.

Click [HERE](#) to view the exhibition online

In 1967, the grounding of Torrey Canyon focused the world's attention on the risks and environmental impact of major marine oil spills. Although this was by no means the first oil spill from a ship, with the size of oil tankers increasing throughout the 1950s and 60s, it was the largest spill at the time. The importance of this incident is not so much its immediate consequences, but its significance as a catalyst for positive change. Fifty years on, the result is a comprehensive regulatory framework, a demonstrably improved shipping industry, good systems of preparedness and response and adequate compensation for those affected by spills.

To mark the important achievements since this incident, the nine partner organisations representing governments and the breadth of the oil, shipping and response industries, have come together to tell the story of the progress made in the last fifty years. *IMO* [Read more](#)

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International news (continued)

EMSA ENTERS NEW PHASE OF EUROPEAN NEIGHBOURHOOD COOPERATION

During the coming years the Agency will continue providing countries covered by the European Neighbourhood Policy (ENP) with technical assistance in the field of maritime safety, maritime security and protection of the marine environment with the aim of enhancing the beneficiaries' capacity to effectively implement the international maritime legislation through both regional and bilateral actions consisting in training activities, sharing best practices, providing tools and services, as well as supporting the development of guidelines and national procedures.

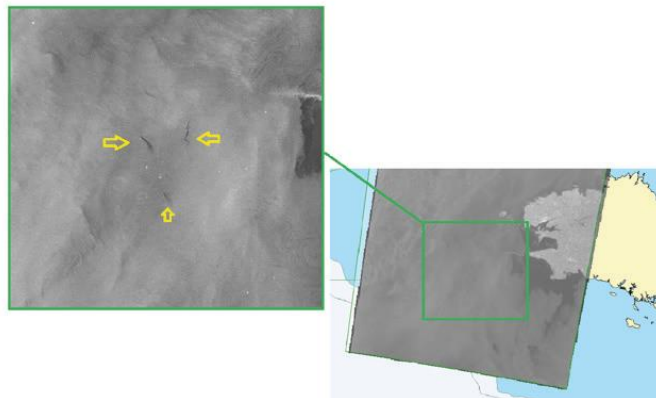
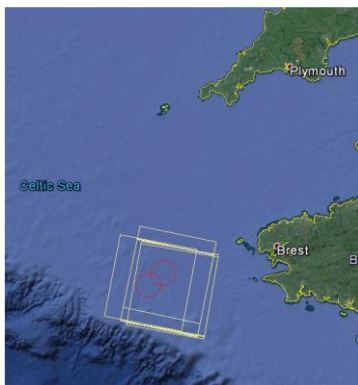
The ENP countries will be assisted through two EU funded projects covering respectively the southern Mediterranean region (Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine and Tunisia) and the Black and Caspian Sea region (Azerbaijan, Georgia, Islamic Republic of Iran, Kazakhstan, Republic of Moldova, Ukraine, Turkey and Turkmenistan).

The two projects will last four years and are supposed to end in spring 2021.

The two projects also aim to support the professional development scheme for Port State Control Officers of the Mediterranean (MEDMOU) and the Black Sea (BSMOU) Memoranda and to provide support to the Mediterranean Coast Guard Functions Forum (MCGFF).

EMSA Newsletter for March 2017 [Read more](#)

CLEANSEANET HELPS TO MONITOR TWO SHIP WRECKS OFF THE COAST OF FRANCE



On 22 December 2016, two supply ships owned by Maersk Group sank off Ushant, France, during a towing operation to Turkey where they were to be dismantled.

The hulls had already been cleaned in preparation for the dismantling. Nevertheless, in the following days oil slicks, which could be the result of un-pumpable residues, were observed in the area by French authorities.

In order to monitor if the hulls were causing further pollution, the French authorities requested additional CleanSeaNet images over a period of two months, within a radius of 15 km around the wrecks' positions.

EMSA ordered a total of seven extra images to complement the coverage already provided by the routine CleanSeaNet service over the area.

One benefit of the CleanSeaNet service is the possibility to provide additional monitoring capabilities over an area of interest at the request of a user with little additional effort; this at a minimum saves the user time and costs involved in deploying national assets, and in some cases provides possibilities for monitoring where they might not otherwise exist.

EMSA Newsletter for March 2017 [Read more](#)

Incident reports

USA: MICHIGAN - DIESEL FUEL FROM KENTWOOD TRUCKING BUSINESS SPILLS INTO PLASTER CREEK

February 28 - An unknown amount of diesel fuel from a trucking business in Kentwood has been leaking into Plaster Creek near Breton Road and 32nd Street. Kentwood firefighters and engineers tracked the source of the smelly diesel in the creek for about half a mile upstream for several hours through storm sewers to Sweet Express, a trucking company at 3050 Breton Road SE, officials said.

The fire department put booms in the creek to collect as much of the diesel as possible - and Young's Environmental has been contracted for the clean-up. The clean-up will involve cleaning out the storm sewers. *Mlive.com*
[Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

USA: WASHINGTON - DIESEL FUEL SPILLS IN DUWAMISH AFTER TUG, BARGE COLLIDE

March 1 - The Coast Guard and the Washington Ecology Department responded Tuesday morning after a collision between a tug and barge spilled diesel fuel on the West Duwamish Waterway.

Larry Altose of the Ecology Department said there may have been 1,200 gallons in the tank of the tug. "We'll treat response as if all spilled, until we learn differently." The spill has been contained with booms and absorbent pads. Global Diving and Salvage has been contracted to investigate any damage to the tug, Read said. *KomoNews.com*
[Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

USA: ILLINOIS - STORMS WASHED FUEL FROM EDWARD HOSPITAL LOT INTO DUPAGE RIVER: OFFICIAL

March 2 - The oil and diesel fuel that flowed into the DuPage River from an Edward Hospital retention pond was the result of Tuesday night's torrential rainstorms, not a fuel leak, a hospital official said Thursday.

Joseph J. Zaehler, the hospital's administrative director of building services, said he met with an investigator from the Illinois Environmental Protection Agency to discuss the source of the hazardous waste that filled the pond. *Chicago Tribune* [Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

USA: FLORIDA - CREWS WORK TO CLEAN UP 9,000 GALLONS OF FUEL AT PORT EVERGLADES

March 3 - Hazmat crews are working to clean up over 9,000 gallons of spilled fuel at Port Everglades, Thursday night.

According to the Broward Sheriff's Office, at around 11:40 p.m., Thursday, a tanker truck rolled over, causing 6,000 gallons of gasoline and 3,000 gallons of diesel to spill out of the truck, some even seeping into the Intracoastal. *7News* [Read more](#)

UK: SWANS RESCUED AFTER OIL SPILL AFFECTS 3 MILES OF BERKSHIRE RIVER



March 6 - Swans have been rescued after an oil spill in the River Kennet in Reading. More than 3 miles of the river has been affected. Oil absorbent booms are in place to help contain the spill.

An investigation has begun into how gallons of oil leaked into a river in the centre of Reading, harming dozens of swans. Experts say it could take weeks to clean up. The Environment Agency is working with police and says the substance is believed to have leaked from a nearby industrial site.

ITV News [Read more and watch video](#)

USA: IOWA - ETHANOL FIRE STILL BURNING HOURS AFTER DERAILMENT

March 10 - A fire sparked by the derailment of a freight train hauling ethanol through rural northwest Iowa continued to burn strong nearly 15 hours later, but appears not to be leaking any significant amounts of ethanol into a creek at the site, an Iowa environmental official said Friday. The train derailed and burst into flames around 1 a.m. Friday as it crossed a trestle bridge over Jack Creek that empties into the Des Moines River. Palo Alto County emergency management director Mark Hunefeld said at least 27 of 101 cars derailed. *Kcrg.com* [Read more and watch video](#)

News reports from around the world (countries listed in alphabetical order)

CANADA: MARINE RESPONSE CORPORATION TO BRING OIL SPILL RESPONSE BASE TO ALBERNI



The West Canada Marine Response Corporation is proposing five new oil spill response bases on the island following Kinder Morgan's approval. — image credit: SUBMITTED PHOTO

March 2 - Port Alberni is waiting for a final investment decision from Kinder Morgan before it receives an oil spill response base.

The provincial government reached a financial deal last Wednesday with Kinder Morgan and approved the expansion of the Trans Mountain pipeline

system. Now the province is waiting on Kinder Morgan to determine if the operation will be financially viable.

“That’s the next milestone,” said Michael Lowry, a spokesperson for Western Canada Marine Response Corporation (WCMRC). “We’re expecting that sometime in the next couple months.” WCMRC is a Transport Canada certified organization that has been protecting British Columbia’s coastal waters from oil spills for almost 40 years. In the wake of a spill, WCMRC controls and contains the source of the spill with the use of containment booms, then recovers the oil and transfers it to secure storage. *Alberni Valley News* [Read more](#)

INDIA: EXPOSED: TN GOVERNMENT HIDES TRUTH ABOUT CHENNAI OIL SPILL DISASTER



March 2 - Exactly a month after the Chennai Oil spill disaster, several questions still remain unanswered. Times Now has accessed 4 crucial reports of various agencies involved in the Chennai oil spill clean-up which clearly indicate that the worst is far from over even after the clean-up. It appears that the authorities are involved in a massive cover-up.

The Indian Coast Guard Report accessed by Times Now clearly reveals a shocking picture. While the Ennore Port Management and the ship owners maintained that it was 2 tonnes of oil that was leaked into the sea. The Indian Coast Guard report observes that the oil slick could have been more than 150 tonnes.

Times Now has accessed the affidavit filed by the Tamil Nadu Government Environment & Forest department Secretary Atulya Misra which clearly reveals that it was the Ennore Kamarajar port's negligence that resulted in this massive accident oil spill tragedy off the Ennore coast.

The report confirms that it was the 'Heavy fuel oil tank' of MT Dawn Kanchipuram that was damaged causing a massive oil slick in the Bay of Bengal. *Times Now* [Read more and watch video](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

News reports from around the world (continued)

LIBYA: NOC REVIEWS CRUDE LOADING PLANS AFTER CLASHES NEAR OIL PORTS

March 5 - Libya's National Oil Corporation (NOC) held an urgent meeting to review crude loading schedules and emergency measures to protect oil facilities after clashes around the major terminals of Es Sider and Ras Lanuf, it said in a statement on Saturday.

The meeting on Friday studied "how to maintain the safety of employees and of oil assets and tanks and facilities within the ports, and to study and review the crude loading plans in accordance with the scheduled tables for export operations", the statement said. *Pipeline Oil and Gas Magazine* [Read more](#)

NIGERIA: FG WANTS SHELL TO OPEN MAJOR PIPELINE BUT ATTACK FEARED

March 6 - Nigeria wants Royal Dutch Shell to reopen one of its main pipelines but the oil multinational is resisting, analysts say, for fear it could once again be bombed by militants.

The Trans Forcados Pipeline, the main feed to the 400,000-barrel-a-day Forcados export terminal, has been shut for all but three weeks of the past year, Lagos-based SBM Intelligence said in its weekly risk analysis published Friday.

In their most sophisticated attack, militants used divers to blow up an underwater section of the pipeline in the Atlantic a year ago. Defying militant death threats, Shell flew in underwater engineers who took seven months to get the pipeline operational. Two days later, the militants bombed it again. Shell Nigeria lost \$3 billion during the seven months of repairs, Africa Confidential newsletter estimated at the time. *News Scroll* [Read more](#)

USA: THE LARGEST INLAND OIL SPILL IN U.S. HISTORY HAPPENED IN MINNESOTA

March 3 - On this day, March 3, in 1991, the Line 3 pipeline ruptured near Grand Rapids, Minn., spilling over 1.7 million gallons of oil, much of which flowed into the Prairie River, after a negligently delayed response by the company. The Prairie is a tributary of the Mississippi, so were it not for the 18 inches of ice on top of the river, the spill could have poisoned the drinking water of millions downstream, and would likely be remembered very differently. Thankfully, this was back in the days when our territories were still frozen and snow-covered in March, before climate change had fully sunk its teeth.

Due to sheer luck, the cleanup was relatively quick and effective, so the spill received nowhere near as much media attention as the catastrophic Kalamazoo River spill of 2010. Enbridge has spent more than \$1.2 billion dollars (and still counting) and the better part of a decade cleaning up that mess, and they haven't finished yet. It turns out that 1.1 million gallons of Alberta tar sands crude oil is not easily removed from riverbanks and sensitive wetlands. Minnesota, take heed. *Herald Review* [Read more](#)

USA: TRUMP'S PROPOSED BUDGET COULD CRIPPLE ENVIRONMENTAL DISASTER RESPONSE

March 9 - On June 3, 2016, a Union Pacific train carrying thousands of gallons of Bakken crude oil derailed in the town of Mosier, Oregon. The derailment sparked a fire, which burned about a quarter acre of land, and sent some 42,000 of crude oil spilling into the soil, wastewater system, and—in small amounts—Columbia River. The derailment in Mosier was, in many ways, a best case scenario for an oil train derailment in the Columbia River Gorge. On a typically windy day, the blaze might have engulfed the entire line of derailed cars. But any oil train derailment—and subsequent spill—is a problem, and emergency responders had to work quickly to prevent as much oil as possible from seeping into the town's groundwater or into the nearby Columbia River.

And that's where Richard Franklin—on-scene coordinator for the EPA's Region 10 office, which includes Alaska, Washington, Oregon, and Idaho—came in. Franklin arrived in Mosier shortly after the first responders and helped coordinate on-scene response to the spill, using his years of experience and expertise working in on-scene disaster management to put into motion a local response plan that had been crafted by the regional office some years prior. "It would have been much more confusing to not have that guidance, and the frankly, the experience of that person in knowing how to move the response quickly and responsibly," Jim Appleton, Mosier fire chief, told ThinkProgress. "I cannot imagine going through that type of an incident, anywhere, without having a competent on-scene coordinator from EPA."

But the regional expertise that helped Mosier respond to the derailment and spill could be in trouble, facing shrinking budgets and an administration that appears hostile to their continued existence. Earlier this week, InsideEPA detailed how the Office of Management and Budget (OMB) had asked the EPA to devise a plan for eliminating two of the agency's 10 regional offices. According to the report, OMB is asking the EPA to submit a comprehensive plan by June 16—about three months after Trump's budget is expected to be made public—for eliminating two regional offices. *Disaster Times* [Read more](#)

News reports from around the world (continued)

VIETNAM SHARES EXPERIENCE IN OIL SPILL PREPAREDNESS AND RESPONSE

March 8 - Vietnam has shared its experience in oil spill preparedness and response, highlighting the importance of developing oil spill contingency plans at provincial and local levels along the need to develop local government capacities in this field.

At a seminar held within the framework of the 5th East Asian Seas Congress in the central city of Da Nang from November 16-21, representatives of Vietnam, other member countries of the Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) and international organisations also discussed recent developments in oil spill preparedness and response. *Vietmaz.com* [Read more](#)

People in the news

USA: MSRC NAMES NEW CEO - CARMINE DULISSE



March 9 - Marine Spill Response Corporation (MSRC), the nation's leading oil spill response organization, has named Carmine Dulisse as its new President & CEO effective March 1, 2017.

Tim Plummer, Chair of the MSRC Board of Directors, said: "The Board is confident that Carmine's background and experience are ideal for him to take the helm at MSRC and lead the organization into the future."

Carmine joins MSRC after over 30 years with ExxonMobil in various roles, including the maritime and crisis management arenas, and brings to MSRC a strong understanding of the response industry. He was one of the founding officers of the Marine Well Containment Company (MWCC) in the capacity of Health, Safety, and Environmental Officer from 2011 to 2015, prior to returning to ExxonMobil as the corporation's Global Emergency Preparedness & Response Manager. He served in this capacity until retiring from ExxonMobil and joining MSRC on March 1. *The Maritime Executive* [Read more](#)

ISCO news

WANT TO READ AN INTERESTING ARTICLE?

From time to time ISCO posts interesting articles on its website. Articles currently available for downloading by ISCO members include –

1. Oil Spill Remote Sensing by Dr Mervyn Fingas, Hon. MISCO
2. Anatomy of an Oil Spill - Case History of an Onshore Heavy Oil Spill in the Scottish Highlands
3. Response to Inland Oil Spills by Mark Francis, FISCO
4. In-Situ Burning by Dr Merv Fingas, Hon.FISCO
5. Integrated booming plans, emergency booming strategies or just the thin red line? An article by Mark Francis, FISCO
6. Case History: "Porechye - Empty Tanks" - An application of hot tap technique
7. Lessons learned from Latin America: Forty years ago - The Metula Incident - An article contributed by Carlos Sagrera MISCO
8. Bitumens and diluted bitumens from Western Canadian Oil Sands - An article contributed by Dr Merv Fingas, HonFISCO
9. The future of Lloyds Open Form - An article contributed by Mark Hoddinott, General Manager of the International Salvage Union
10. Ten years after being hit by Hurricane Katrina, seeing an oiled marsh at the centre of an environmental clean-up - A Case History contributed by NOAA
11. A successful Sunken Oil assessment - The T/B Apex spill in the Mississippi River - An article contributed by Dr Jacqueline Michel, President of Research Planning, Inc.
12. New mapping solution helps reduce environmental impact from oil spills - An article contributed by the Organisation of the Norwegian Coastal Administration.
13. Case History - RFA Darkdale Oil Removal Project - An article contributed by Simon Valentine, FISCO, Emergency Response Manager, Swire Emergency Response Services, Dubai.
14. Shoreline Clean-up - An article giving helpful guidance and lots of useful information contributed by Mark Francis, FISCO.
15. Tools to help deal with the sinking problem of wrecked and abandoned ships - An article contributed by NOAA

After logging in, you can find Technical Articles in the Technical & Reference section.

RISING TO THE CHALLENGE: THE OUTCOMES OF THE IPIECA-IOGP OIL SPILL RESPONSE JOINT INDUSTRY PROJECT 2011 – 2016



About the author - Rob Cox is Technical Director of IPIECA in London. Rob has over twenty five years of international petroleum industry experience including fifteen years with Caltex/Chevron in Africa, the Middle East and the United States. Rob's background combines field experience in Environment, Health & Safety aspects of shipping, refining, distribution and retail marketing, as well as Environmental Management System implementation and auditing.

Until recently Rob was seconded to the position of program manager of the IOGP-IPIECA Joint Industry Project on Oil Spill Response (the OSR – JIP) which was established to understand and implement the oil spill response lessons learned from recent upstream incidents.

Rob holds a Bachelor's degree in Chemistry and Biochemistry from the University of Dundee in Scotland and a Postgraduate Diploma in Environmental Practice from Farnborough College of Technology in England.

Part 6 – Marine and shoreline ecology, impacts, assessment and clean up

This article continues the story of the IPIECA-IOGP Oil Spill Response JIP, which this week looks at several interrelated Good Practice Guides (GPGs) on marine and shoreline ecology, impacts, assessment and clean-up produced as part of the Oil Spill Response JIP.

The marine environment is a dynamic and diverse network of habitats and species, interwoven by complex physical and ecological processes that interact with humans and their activities at many levels. To devise fit-for-purpose response strategies which are prioritised to ameliorate damage, it is essential to first understand the impacts that oil spills can potentially have on the resources and functions of the marine environment and how quickly they can recover. *Impacts of oil spills on marine ecology*, which was written for the JIP by Jon Moore, is aimed at operators, governments, businesses and the public, first describes the physical processes that spilled oils go through that are relevant to marine ecological impacts, followed by a section describing the mechanisms and factors that typically affect the impacts of oil spills on marine resources and their rates of recovery. The third section describes some of the more common impacts of oil spills on life forms associated with different ecosystems, and includes references to relevant case studies. The final two sections consider current good practice in spill response and how it is designed to minimize further environmental damage, then summarizes some of the fundamental approaches and requirements of a damage assessment, and the follow-up monitoring necessary to describe recovery. The document is available at:

http://www.oilspillresponseproject.org/wp-content/uploads/2017/01/Impacts_on_marine_ecology_2016.pdf

Similarly, the companion GPG, also written by Jon Moore, *Impacts of oil spills on shorelines* provides an overview of how oil spills can impact shoreline resources covering the habitats and species characteristic of the intertidal zone of marine and estuarine shores. The first section, entitled *oil on shorelines: fate, persistence and natural removal*, describes the fate of oil on different shorelines and the characteristics that are relevant to impacts and recovery. Emphasis is placed on those characteristics and processes that affect oil persistence, as they are most likely to influence long-term effects. The section on Ecological impacts of oil on shorelines provides a general description of the susceptibility of different shoreline organisms to oil, and habitat-specific descriptions of typical impacts, resilience, expected recovery rates and the main factors that determine them. *Shoreline treatment and restoration* considers current good practice for shoreline clean-up; the potential advantages and disadvantages of the main treatment options are discussed, together with examples of past restoration projects. *Assessment and monitoring of oiled shorelines* summarizes some of the fundamental approaches and requirements of impact assessment. The document is available at:

http://www.oilspillresponseproject.org/wp-content/uploads/2017/01/Impacts_on_shorelines_2016.pdf

Oiled shoreline assessment surveys—also known as Shoreline Clean-up Assessment Technique (SCAT) surveys—are a critical component of a response operation. The information gathered by the survey teams is used by the response managers to set objectives, priorities, constraints and end points, all of which are essential in supporting the planning, decision making and implementation of an effective shoreline response programme. *A guide to oiled shoreline assessment (SCAT) surveys*, written by Ed Owens and Helen Dubach explains why an oiled shoreline assessment programme is an important element of a response, and outlines the benefits of systematic surveys. In addition, the guide explains why and how an effective shoreline assessment programme supports the planning,

Special feature (continued)

decision making and implementation process for a shoreline response, and how the key components of shoreline surveys are integrated into the data generation, decision making, and implementation and closure stages of a shoreline response programme. The key elements of the survey process are also outlined with respect to the types of information that are collected and the purpose for which they are used by decision makers. The way data is collected is described, and a checklist is provided as a guide to the specific field and management activities within an oiled shoreline assessment programme. The guide explains the important concept of shoreline segments and segmentation as a method for conducting systematic surveys and managing the data and information that is generated. Examples of the types of recommendations, maps and tables that are produced as part of the data management process illustrate how the field data are used in a shoreline response programme. The document is available at:

http://www.oilspillresponseproject.org/wp-content/uploads/2017/01/SCAT_2016.pdf

Shoreline clean-up is the most visible element of spill response, and is inevitably a focus for media attention. The shoreline is usually accessible by the media and special interest groups, and with the availability of a wide range of communication channels, disquiet in the local community can quickly spread to a much wider audience with unpredictable repercussions. Decisions such as which clean-up techniques are best suited to which shoreline type, what equipment can be used, the numbers of personnel that should be deployed and the criteria for terminating operations are all finely balanced and need judgement and experience to execute successfully. *A guide to oiled shoreline clean-up techniques*, written by Hugh Parker, is divided into four sections. The first section sets out ten important factors to be considered when contemplating the clean-up of an oiled shoreline, followed by a discussion of the steps to be taken in managing shoreline clean-up operations. The third section describes some of the most frequently used clean-up techniques, and sets out the advantages and limitations of each one, as well as the stages in the overall operation when a particular technique is likely to be most useful. The final section examines the interaction between stranded oil and different shoreline types, and suggests some possible approaches to addressing the challenges that this interaction can present. Two appendices provide examples of a volunteer registration form and daily worksite sheet, respectively. The document is available at:

http://www.oilspillresponseproject.org/wp-content/uploads/2017/01/Shoreline_clean-up_2016.pdf

There are two related documents – a GPG and a document in the JIP “technical series” which may also be of interest to the reader. *Oil spill waste minimization and management* written by David Ord aims to introduce the reader to the principles involved in considering each of the aspects of oil spill waste management highlighted above. These principles are relevant to both offshore and inland spills worldwide, and affect upstream and downstream operations from oil exploration and production, through processing, refining, transport and storage activities. This GPG is available at:

http://www.oilspillresponseproject.org/wp-content/uploads/2017/01/Waste_Minimization_and_Management_2016.pdf

Finally, the JIP technical document *Volunteer management* focuses specifically on good practices that relate to volunteer engagement, coordination and management, presenting case studies from the *Rena* oil spill off the coast of Tauranga in New Zealand, written and edited by Bruce Fraser and Pim de Monchy respectively and the *Cosco Busan* oil spill in San Francisco Bay written by Mike Ziccardi. The *Volunteer Management* case study document is available at:

<http://www.oilspillresponseproject.org/wp-content/uploads/2016/02/JIP-15-Volunteer-Management.pdf>

Next week: Surveillance, Modelling and Visualization (SMV)

Correspondence

USA: REQUEST FROM BSEE - PROPOSED RESEARCH ON OIL SPILL RESPONSE OPERATIONS ON THE U.S. OUTER CONTINENTAL SHELF

BSEE has released a Broad Agency Announcement soliciting 5 page white papers on two topics. The topics include "Development of an Active Ice Management System for Skimmers" and "Determine the Relative Efficiency of Various Surface Dispersant Delivery Techniques/Systems". The announcement can be found:

<https://www.fbo.gov/index?s=opportunity&mode=form&id=f61181d0a8d676832b7a87c8c38fe460&tab=core&view=0>

White papers are due March 27th. Please forward to ISCO members as soon as possible.

COMING SOON: OIL SPILL-MAPPING SWARMS OF FLYING DRONES

February 27 - Thousands of ants converge to follow the most direct path from their colony to their food and back. A swarm of inexpensive, unmanned drones quickly map an offshore oil spill.

What could these events have in common?

Each extremely complex task is accomplished by individuals following very simple rules. But to make the drones do it, a bit of nature's magic must be captured in a mathematical formula.

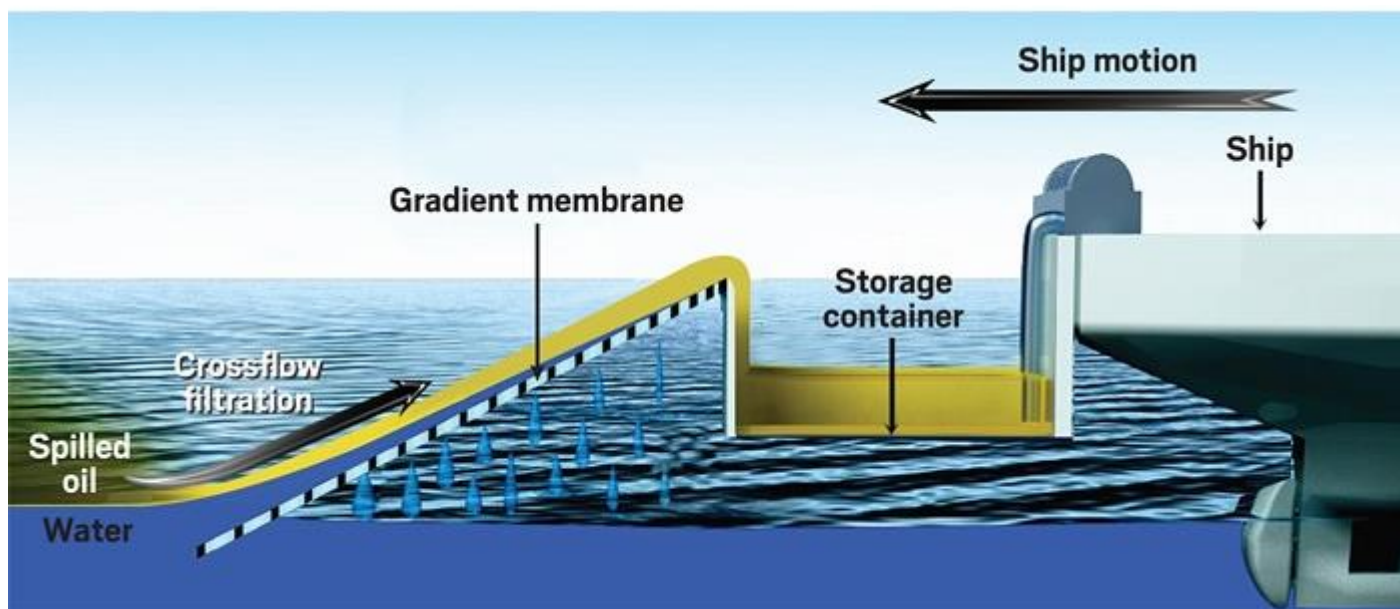
"Nature may not proactively use mathematics, nor does it have foresight. It behaves in ways driven by feedback, implicit drive for adaptation, and a certain degree of apparent randomness," said Souma Chowdhury, PhD, assistant professor of mechanical and aerospace engineering in the University at Buffalo's School of Engineering and Applied Sciences. "But we can look at what kind of mathematical principles define that behavior. Once we have that, we can use it to solve very complex problems."

Chowdhury is pioneering a way to program a team of drones to quickly map an oil spill. His computational efforts, in a paper which he co-authored with UB students Zachary Ball and Philip Odonkor, were presented in January at the American Institute of Aeronautics and Astronautics' Science and Technology Forum.

The study, called "A Swarm-Intelligence Approach to Oil Spill Mapping using Unmanned Aerial Vehicles," optimized and simulated a five-drone swarm that can map a nearly one-kilometer wide spill in nine minutes. *Phys.Org*

[Read more](#)

SIMPLER, FASTER OIL-SPILL CLEANUP USING FISH-INSPIRED MEMBRANES



A proposed system for cleaning up oil spills (bottom) modeled after the way filter-feeding fish eat consists of a mesh membrane with pore sizes that get smaller from the bottom to the top. When the membrane is pushed at an angle through an oil slick, a layer of water forms along the membrane, and oil flows over the top into a storage container. The membrane would be attached to a ship for large-scale cleanups. Credit: ACS Nano

March 3 - By mimicking the way some fishes eat, a new membrane easily separates and collects spilled oil on water without getting clogged (ACS Nano 2017, DOI: 10.1021/acsnano.6b07918). It could be an efficient and cost-effective way to clean up large oil spills, its developers say.

Disaster responders typically clean up large oil spills by containing the slick with floating booms and using skimmers to remove it. Many researchers are developing separation membranes that could potentially be faster and cheaper. These are designed to repel water or attract oil, which helps them separate the two liquids. But the membranes' pores tend to get clogged with oil, which makes them ineffective after a while.

Dongliang Tian of Beihang University, Ziqi Sun of the University of Wollongong, and their colleagues designed a new filter inspired by the throat structures of filter-feeding fish. To filter out tiny prey suspended in water, these fish have bony arches in their throats that get narrower and more closely spaced deeper into the throat. Water flows into the throat, gradually seeping out from the spaces between the arches and out through the gills, while food particles collect at the back. *Chemical & Engineering News* [Read more](#)

Science and technology (continued)

A ROBOT THAT EATS POLLUTION

February 28 - Meet the "Row-bot," a robot that cleans up pollution and generates the electricity needed to power itself by swallowing dirty water. Robotist Jonathan Rossiter explains how this special swimming machine, which uses a microbial fuel cell to neutralize algal blooms and oil slicks, could be a precursor to biodegradable, autonomous pollution-fighting robots. [View this presentation](#) [Thanks to Marc Shaye Hon.FISCO, Member of ISCO Committee]

CHICAGO'S SCIENCE HUB WORKS TOGETHER FOR OIL SPILL BREAKTHROUGH



March 6 - Laboratory near Chicago may have made a breakthrough in oil spill clean ups, with the development of a reusable sponge that can soak up oil from on and below the water's surface.

The Oleo Sponge is a new type of foam that can not only soak up oil that has dispersed throughout a water column, but can be wrung out to allow reuse of both the material and the recovered oil.

Born out of the University of Chicago's work on the Manhattan Project in the 1940s, Argonne is a multidisciplinary science and engineering research centre, with a goal of seeking solutions to pressing national problems in science and technology. It ties into Chicago's growing reputation as a leader of innovative environmental initiatives, leveraging its Chicago-area location

amongst a high concentration of top-tier scientific research organisations, from high-energy physics and materials science to biology and advanced computer science. It is managed by UChicago Argonne, LLC, for the U.S. Department of Energy's Office of Science. The research was funded by the U.S. Coast Guard and the Bureau of Safety and Environmental Enforcement following difficulties encountered during the Deepwater Horizon oil spill clean-up.

The team modified common polyurethane foam, used in everything from furniture cushions to home insulation, using a process called sequential infiltration synthesis (SIS) to help it discriminate between oil and water. Oleophilic (oil-loving) molecules were stuck onto a thin 'primer' layer of metal oxide inside the foam. In seawater tank tests, the Oleo Sponge managed to adsorb diesel and crude oil from the water, both on and below the surface. Better yet, it can be wrung out afterwards, allowing the material to be reused, and the oil to be recovered. *IntellectualCapitals.com*

[Read more](#)

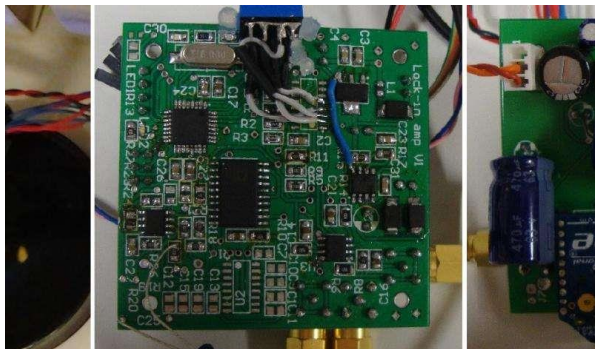
Related reports – [Thanks to all readers who sent in links]

March 7 - Soaking Up an Oil Spill [Download](#)

March 7 - US laboratory invents reusable sponge that could revolutionise oil spill cleanup [Download](#)

March 9 – New Scientist: Sponge can soak up and release spilled oil hundreds of times [Download](#)

LOW-COST MONITORING DEVICE USES LIGHT TO QUICKLY DETECT OIL SPILLS



Researchers developed a device that uses fluorescence from oil (left) to detect its presence and identify the type of oil. The small and simple device incorporates inexpensive electronic components (right). Credit: Oscar Sampedro, Universidade de Vigo.

March 6- Researchers have developed a simple device that can detect an oil spill in water and then pinpoint the type of oil present on the surface. The device is designed to float on the water, where it could remotely monitor a small area susceptible to pollution or track the evolution of contamination at a particular location.

"Fast detection of a spill is crucial for a quick antipollution response to avoid, as much as possible, the progressive mixture of the oil into the water, which would make cleaning more difficult and inefficient," said the leader of the research team, Jose R. Salgueiro of Universidade de Vigo, Spain. "Also, knowing the oil type makes possible a more specific response to counteract the pollution."

When crude or refined oil absorbs ultraviolet (UV) light, it emits a unique fluorescence spectrum. The new device uses this fluorescence spectrum as a sort of a fingerprint to identify the oil type by comparing the measured fluorescence with information in a database. *PhysOrg/News* [Read more](#)

Publications

STANDARD HANDBOOK OIL SPILL ENVIRONMENTAL FORENSICS. EDITION NO. 2

Standard Handbook Oil Spill Environmental Forensics: Fingerprinting and Source Identification, Second Edition, provides users with the latest information on the tools and methods that have become popular over the past ten years.

The book presents practitioners with the latest environmental forensics techniques and best practices for quickly identifying the sources of spills, how to form an effective response, and how to determine liability. This second edition represents a complete overhaul of the existing chapters, and includes 13 new chapters on methods and applications, such as emerging application of PAHi isomers in oil spill forensics, development and application of computerized oil spill identification (COSI), and fingerprinting of oil in biological and passive sampling devices. [More info](#)

Links for recent issues of other publications (in alphabetical order)

AMSA Aboard	News from the Australian Maritime Safety Authority	December 2016
ASME EED EHS Newsletter	News and commentary on HSE issues from George Holliday	Most recent issue
Bow Wave	Sam Ignarski's Ezine on Marine & Transport Matters	Current issue
Cedre Newsletter	News from Cedre in Brittany, France	January 2017
CROIERG Enews	Canberra & Regions Oil Industry Emergency Response Group	Current issue
EMSA Newsletter	News from the European Maritime Safety Agency	March 2017 issue
Environmental Technology Online	Environmental Monitoring, Testing & Analysis	December 2016 issue
IMO News Magazine	News from the International Maritime Organization	No 4, 2016
IMO Publishing News	New and forthcoming IMO publications	February 2017
Intertanko Weekly News	International news for the oil tanker community	March 10, 2017
JOIFF "The Catalyst"	Int'l Organisation for Industrial Hazard Management	January 2017 issue
MOIG Newsletter	News from the Mediterranean Oil Industry Group	January 2017 issue
NOWPAP Quarterly	News from the North West Pacific Action Plan	Quarter 1, 2016 issue
Ocean Orbit	Newsletter from the International Tanker Owners Pollution Federation	May 2016
OCIMF Newsletter	News from the Oil Companies International Marine Forum	February 2017 issue
Pollution Online Newsletter	News for prevention & control professionals	March 8 2017
Safe Seas, Clean Seas	Quarterly Newsletter from Maritime New Zealand	December 2016 issue
Sea Alarm Foundation Newsletter	Oiled wildlife Preparedness and Response news from Sea Alarm	Autumn 2015 issue
Technology Innovation News Survey	News from US EPA – Contaminated Site Decontamination	December 1-15, 2016
Transport Canada Newsletter	News and articles re transport of dangerous goods in Canada	December 2016 issue
USA EPA Tech Direct	Remediation of contaminated soil and groundwater	March 1, 2017
USA EPA Tech News & Trends	Contaminated site clean-up information	Spring 2016 issue
WMU Newsletter	News from the World Maritime University	December 2016 issue

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

Company news

ISCO MEMBER, LAMOR CORPORATION DEMONSTRATES NEW OIL RECOVERY SYSTEM

March 3 - In mid-February, Lamor Corporation demonstrated an innovative new way to recover oil by deploying the Lamor Marine Oil Spill Sweeper LMOS 15 Speed Skimming system in Halifax, Canada in cooperation with their local representative, Griffin Engineered Systems, for leading Canadian response organizations and companies, represented by Eastern Canada Response Corporation (ECRC), Canadian Coast Guard, Department of Defense (DND), ALERT and RMI Marine.

Despite the harsh weather conditions Halifax harbor that day, with winds up to 35 knots, including snow changing to freezing rain and ice pellets, while temperatures were ranging from minus 4°C to plus 6°C, the deployment of the LMOS 15 went well and proved the system's effectiveness and recovery capacity in various climatic scenarios. Michael Hebb, VP Sales of Griffin Engineered Systems, commented:

"Our clients have told us about the challenges they have faced using sweep systems, and I feel we are properly positioned to address those concerns with the LMOS Sweeper, which we are pleased to be able to offer our Canadian customers through our partnership with Lamor. The LMOS Sweeper has shown that it addresses many of the concerns that have been raised. Its solid floatation design ensures it is easier to deploy, is less susceptible to wind forces, and provides continuous pumping of oil to the tow vessel from the collection pool. The LMOS Sweeper's design allows for a single vessel operation that provides effective maneuverability and superior recovery at speeds of up to 4.5 knots." *The Maritime Executive* [Read more and watch video](#)

Contracts and tenders

LIVE TENDERS FOR OIL SPILL SERVICES

Note from Editor – Your editor periodically receives lists of tenders but they are rarely as well focused on spill response as this one – Contact david@tender247.com to request his list of live tenders for Oil Spill Services.

Upcoming events summary

COUNTRY	2017	TITLE OF EVENT	LOCATION
For more information click on Title of Event			
UK	Jan 16 – July 7	IMO Exhibition – 50 Years Gov't & Industry Co-op'n	London
TUNISIA	March 14-15	Oil Spill Preparedness Workshop with OSRL	Tunis
USA	March 28-30	2017 SCAA Annual Meeting & Conference	Washington DC
CYPRUS	April 6-7	East Med Marine and Oil & Gas Exhibition	Limassol
UAE	April 10-12	RECISO EnviroSpill 2017	Abu Dhabi
UK	April 24-28	April 2017 IOPC Funds Meetings	London
SINGAPORE	April 25-28	10th Intl Chemical and Oil Pollution (ICOPCE)	Singapore
UK & IRELAND	April 26-27	ISAA Spill Response Training Days, N. Ireland	Enniskillen
UAE	May 9-10	Offshore Arabia Conference & Exhibition	Dubai
USA	May 15-18	International Oil Spill Conference	Long Beach CA
USA	May 16	ISCO-BIMCO Presentation & Reception	Long Beach CA
USA	May 17	ISCO AGM	Long Beach CA
BELGIUM	June 7-8	European Environmental Ports Conference 2017	Antwerp
UK	June 20-21	Wreck Removal Contracts & Operations Seminar	London
USA	June 27-28	Clean Waterways	Louisville KY
UK	July 3-7	IMO Marine Environment Protection Committee	London
CHINA	July 14	6th NOWPAP DELTA Exercise	Weihai
UK	Sept. 5-8	SPE Offshore Europe	Aberdeen
UAE	Nov. 13-16	Abu Dhabi Int'l Petroleum Exhibition & Conference	Abu Dhabi
USA	Dec. 5-7	Clean Gulf Conference and Exhibition	Houston, TX
	2018		
UK	March 13-15	2018 INTERSPILL Conference and Exhibition	London
To request posting of an event of interest to the Spill Response Community please send details to the Editor			

Stop Press – Breaking News

TAIWAN, CHINA: HEAVY OIL SPILL NEAR GREEN ISLAND

March 11 - Authorities on Saturday are rushing to clean up heavy oil that appeared to have been illegally dumped into the waters near Taiwan's offshore Green Island, environmental officials said.

Officials from the Environmental Protection Administration (EPA) said they received reports about the oil spill along the coast of Green Island Friday night and sent personnel and experts to the site on Saturday to clean up the leak.

The heavy oil spread around 10 kilometers along Green Island's northern coast, stretching from the northwestern coast to the northeastern coast of the 15 square-kilometer island, said Hsiao Su-ping (蕭肅平), head of the Green Island Inspection Office under the Coast Guard 81st Brigade. *Focus Taiwan* [Read more](#)

CANADA: BREAKING: ANOTHER OIL SPILL REPORTED OFF NORTHERN VANCOUVER ISLAND

March 10 - A second fuel spill in less than a week is fouling the ocean near Port McNeill.

An Environmental Emergency Response Officer with the B.C. Ministry of Environment received a report of a potential diesel spill near the Port Harvey Marine Resort, located about 60 km south of Port McNeill on East Cracroft Island in the Broughton Archipelago, on Friday afternoon.

According to the ministry's website, a private citizen reported fuel on the beach and in the water near the Port Harvey Marine Resort's marina. *PQB News* [Read more](#)

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