

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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IOPC FUNDS 40TH ANNIVERSARY CELEBRATORY SESSION AND RECEPTION



The IOPC Funds took the opportunity of its meeting of the governing bodies this week to formally celebrate its 40th anniversary.

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INTERNATIONAL NEWS (CONTINUED)

A special session was held at the International Maritime Organization (IMO) during the afternoon of 30 October 2018, during which the three former Directors, Dr Reinhard Ganten, Mr Måns Jacobsson and Mr Willem Oosterveen, were each presented with a special award in recognition of their valuable contribution to the work of the IOPC Funds.

The session was attended by the Secretary-General of IMO, Mr Kitack Lim, Secretaries-General Emeriti, Mr William O'Neil and Mr Efthymios E. Mitropoulos and other eminent persons from the maritime and shipping industry, State representatives, organisations and companies with whom the IOPC Funds has worked closely over years, as well as a large number of former members of the Secretariat. IOPC Funds / [Continue reading](#)

IMO ADOPTS PLAN FOR ADDRESSING MARINE PLASTIC



The IMO has pledged to address the significant problem posed by plastics to the marine environment, with the adoption of an action plan which aims to enhance existing regulations and introduce new supporting measures to reduce marine plastic litter from ships.

The plan was adopted on October 26 by IMO's Marine Environment Protection Committee (MEPC).

Dumping plastics into the sea is already prohibited under MARPOL regulations, which also oblige governments to ensure adequate port reception facilities to receive ship waste. Under the London Convention and Protocol on the dumping of wastes at sea, only permitted materials can be dumped and this waste - such as from dredging - has to be fully assessed to ensure it does not contain harmful materials like plastics.

However, studies demonstrate that despite the existing regulatory framework to prevent marine plastic litter from ships, discharges into the sea continue to occur. Recognizing that more needs to be done, IMO Member States agreed on actions to be completed by 2025, which relate to all ships, including fishing vessels. The Maritime Executive / [Read more](#)

IPIECA-UN-NORAD: OIL FOR DEVELOPMENT - AFRICA REGIONAL WORKSHOP ON OIL AND GAS OPERATIONS IN ENVIRONMENTALLY SENSITIVE AREAS

IPIECA recently collaborated with UN-Environment, UN Environment World Conservation Monitoring Centre (UNEP-WCMC) and Norwegian Agency for Development Cooperation (Norad) to help deliver the Oil for Development - Africa Regional Workshop on Oil and Gas Operations in Environmentally Sensitive Areas in Nairobi, Kenya.

The workshop included representatives from government ministries including Ghana, Kenya, Mozambique, Tanzania, Uganda and Zanzibar. The training aimed to enhance understanding of the impact of oil and gas operations in environmentally sensitive areas and strengthen national and regional efforts in this area by considering options for preventing or mitigating these potential impacts. IPIECA / [Read more](#)

INCIDENT REPORTS (IN CHRONOLOGICAL ORDER)

FRANCE: AT LEAST 26 BEACHES AFFECTED BY OIL SPILL

October 21 - Oil has washed up on at least two dozen beaches in the south of France following a collision between two cargo ships near Corsica some two weeks ago, according to local authorities and media reports.

On Friday, officials from the prefecture of Toulon said a total of 26 beaches in nine municipalities had been affected, warning local residents not to touch the oil. Gulf Times / [Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

USA: NEW YORK - HONEYWELL TO SPEND \$19 MILLION ON LATEST PHASE OF ONONDAGA LAKE CLEANUP

October 25 - The site, known as Harborbrook/Wastebed B, was first listed as a high-priority hazardous waste site in 1994, along with other areas in and around the lake. Cleanup of the lake bottom was completed in 2017, and Honeywell is now focusing on areas along and the lakeshore and tributaries.

Honeywell is responsible for the cleanup of the Harbor Brook site, which borders Harbor Brook and straddles I-690 at the southwest corner of the lake. The DEC says that Honeywell is on the hook forever to monitor the soil cover, along with the underground retaining wall that keeps contaminated groundwater from flowing into the lake. Syracuse.com / [Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

COLOMBIA: ECOPETROL CLEANS SPILL AFTER BOMB ATTACK ON CANO LIMON PIPELINE

October 25 - Colombia's state-run oil company Ecopetrol is carrying out a clean-up operation after a bomb attack on the Cano Limon pipeline spilled crude into a waterway, the company said in a statement on Thursday.

Though the pipeline was not functioning at the time of the attack, some oil spilled into a creek in the La Blanquita area of Boyaca province, the company said. Energy Analytics Institute / [Read more](#)

USA: PENNSYLVANIA - HIGH LEVELS OF TOXIC FRACKING CHEMICALS ARE FOUND IN SHELLFISH NEAR FORMER DISPOSAL SITES

October 26 - Academics at Pennsylvania State University found strontium in the crustaceans' outer layers -seven years after authorities first banned the dumping of toxic wastewater into local rivers. The findings were published in [the journal Environmental Science and Technology](#), last month. Academics at Pennsylvania State University found strontium in the crustaceans' outer layers -seven years after authorities first banned the dumping of toxic wastewater into local rivers. 'Freshwater pollution is a major concern for both ecological and human health,' said Professor David Gillikin, co-author on the study.

Public Health England (PHE) criticised a U.S. study, which claimed that residents living within half a mile of a site were slightly more likely to get cancer. Dr John Harrison, director of PHE's Centre for Radiation, Chemical and Environmental Hazards, insisted that as long as fracking was carried out properly, the potential risks to public health would be 'low'. He said: 'The currently available evidence indicates that the potential risks to public health from exposure to emissions that are associated with shale gas extraction process are low if the operations are properly run and regulated.' Mail Online / [Read more and watch video](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

PAKISTAN: OIL SPILL AFFECTING MARINE LIFE NEAR KARACHI COAST: WWF-P

October 27 - The oil spill on the coastal belt, spreading from Mubarak Village to Manorah, has started affecting marine life. According to World Wide Fund for Nature-Pakistan (WWF-Pakistan), green turtles, crabs and several types of fish have been found dead on the shore in the last two days. Tribune PK / [Read more](#)

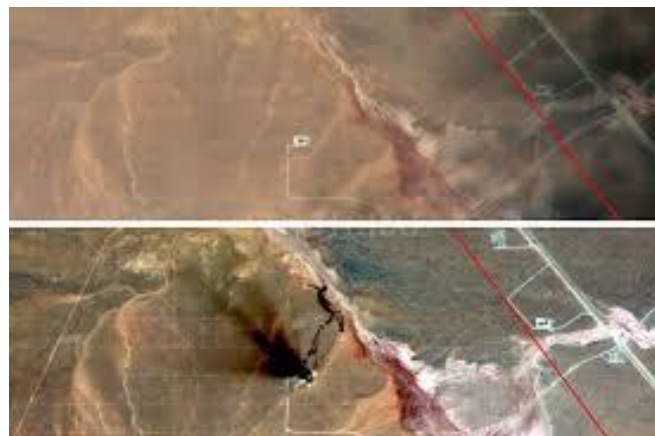
October 28 - Pakistan works to contain oil spill near Karachi - Authorities in Pakistan have launched an operation to contain an oil spill that has damaged about 1.5 kilometers (nearly 1 mile) of coastline near the southern port city of Karachi. Moazzam Khan, of the World Wildlife Fund, said Sunday that traces of oil have been found across an 8-kilometer (5-mile) stretch, endangering marine life. Residents suspect the oil leaked from an underwater pipeline at a nearby refinery. Mohammad Abid, of the Pakistan Maritime Security Agency, said two trails of oil can be seen from the air, but that the source is unknown. The refinery denied it was the source of the spill, but suspended operations after been ordered to do so by local authorities. ABC News / [Read more](#)

October 29 - Probe confirms no oil spill from Byco Petroleum facilities - After a thorough investigation, the Balochistan Environmental Protection Agency (BEPA) has confirmed that Byco Petroleum Pakistan Ltd (BPPL) had absolutely no leakage or loss of containment from any of its facilities. This has been further confirmed also by the Pakistan Maritime Security Agency (PMSA). BEPA and PMSA had conducted their investigation starting October 25, including conducting aerial survey to determine the source of the leakage that washed up on the shores of Mubarak Village. Their findings showed no evidence of leakage at Byco's facilities. As part of its own investigation, Byco tested a sample of the oil found at the site and found it to be bunker oil, which is not produced at Byco's refinery, nor at any other refinery in Pakistan. DunyaNews TV / [Read more](#)

October 30 - Investigators fail to fix responsibility of oil spill - Mystery of oil spill that affected coastline of Sindh and Balochistan from Hawkesbay to Gadani was partially resolved after a private company, Byco Petroleum, confirmed that oil that affected the coast was bunker oil, which is used as fuel in large ships. "It is most likely that in this case the bunker oil was dumped by a ship being taken to Gadani for ship-breaking," the petroleum company stated. The News / [Read more](#)

ARGENTINA: OILWELL BLOW-OUT IN BANDURRIA SUR

October 31 – Report received from Carlos Sagrera, MSc, MISCO, Member of ISCO Council for Panama



“Here are some Spanish links concerning this onshore spill of YPF-Schlumberger in Bandurria Sur, Province of Neuquen (SW of Argentina)”.

https://www.clarin.com/sociedad/36-horas-derrame-vaca-muerta-polemica-magnitud-incidente-ambiental_0_qF4lDhY8r.html

<https://www.minutoneuquen.com/neuquen/2018/10/25/analizan-dano-ambiental-de-un-derrame-de-petroleo-en-vaca-muerta-138985.html>

<http://www.energiaspatagonicas.com/ambientales/el-comunicado-de-ypf-sobre-el-derrame-de-petroleo-en-bandurria/>

<http://www.greenpeace.org/argentina/es/noticias/Imagenes-exclusivas-del-derrame-de-petroleo-en-Vaca-Muerta/>

<http://greenpeace.org.ar/pdf/PI%20Ambiente%20Neuquen%20Bandurria%20Scan.pdf>

<https://www.ecoportel.net/paises/ypf-tras-impresionante-derrame-de-petroleo-en-chile-ahora-otro-en-vaca-muerta/>

According to the local press on October 19th there was a blow out at the well La Caverna 26 (3,000 m deep). They are talking about 85,000 square meters of contaminated land.

There are some satellite photos published by the NGOs that shows the size of the incident. Until now there are not any official comments about the causes of the incident.

This is the second incident in the Patagonia region in the same week. On October 18th there was another spill of YPF – ENAP (Chile’s National Oil Company) in Tierra del Fuego (Chile).

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

CANADA: GOVERNMENT OF CANADA INTRODUCES OCEANS PROTECTION PLAN LEGISLATIVE CHANGES

October 30 - Canada's oceans are a source of inspiration and pride for all Canadians, and contribute to the growth of our economy. But as overseas trade and the movement of goods grow, there is a need for greater emphasis on marine safety and environmental protections. Now more than ever, the Government of Canada recognizes that enhanced prevention and safety measures are needed to ensure the safe transportation of goods in Canadian waters.

Yesterday, the Government introduced the Budget Implementation Act, which includes proposed legislative changes to the Canada Shipping Act, 2001 and the Marine Liability Act. These changes deliver on commitments made under the Oceans Protection Plan to enable the Government to respond to marine pollution incidents faster and more effectively, and to better protect marine ecosystems and habitats. If passed, these amendments would improve marine safety and environmental protection by:

- modernizing Canada's Ship-Source Oil Pollution Fund, including unlimited compensation for victims and responders in the event of an oil spill from a ship;
- strengthening the legal authority to regulate marine vessels in order to protect the marine environment, including for example to protect endangered whale populations;
- authorizing the Minister of Transport to issue interim orders to allow for immediate actions to be taken to address a pressing risk to marine safety or to the marine environment;
- enabling more proactive, rapid, and effective response to oil spills in Canada's waters, while maintaining the polluter pays principle; and
- supporting research and innovation to enhance marine safety and environmental protection. [Newswire CA / Read more](#)

KENYA: COMMENT ON THE CRITICAL ARTICLE PUBLISHED IN LAST WEEK'S NEWSLETTER

Your editor has received comment from Sanjay Gandhi, Member of ISCO Council for Kenya –

"While the article contains a few truths, it is fundamentally flawed as it lacks adequate research about the status of the oil industry environment, health and safety (EHS) and its level of maturity. For example, the article did not consult or articulate views of the oil industry and is skewed towards "lack of laws and enforcement of legislation respectively". The article is broken down into sub-headings namely (i) oil spills and pollution, (ii) gaps in policies and laws, (iii) worker safety, (iv) regulations issues, and (v) policy issues; unfortunately, the content under these sub-headings is qualitative and lacks specific details. The authors demonstrate their lack of understanding of Kenyan legislation on EHS and the various regulatory authorities responsible for implementing their respective sectoral laws.

To present a balanced view, the authors should have gotten the views of the Oil and Gas (O&G) industry through institutions such as the Petroleum Institute of East Africa (PIEA), the Oil Spill Mutual Aid Group (OSMAG) and members of the Environment, Health and Safety (EHS) community within the upstream, midstream and downstream oil and gas industry to understand "their side of the story". With respect to the oil discoveries on-shore, the authors did not interview Tullow Oil EHS staff to understand the company's capability to respond to EHS related incidents; as a responsible company, I have consulted widely for Tullow in the field of EHS and can confirm that they (a) use the hierarchy of hazard controls, (b) have a mature EHS management system, (c) are a responsible company w.r.t. EHS, (d) meet their EHS statutory obligations (e) conduct quarterly EHS forums for all their contractors, and (f) are corporate members of OSRL. The article does not acknowledge any of these advancements made following the discovery of oil in Kenya.

Contrary to the views presented in the article, Kenya's O&G industry has made positive advancements in the field of EHS; in fact, the industry is the most proactive sector in the country in management of EHS impacts associated with their operations. For example, in 1998, the downstream sub-sector formed an OSR cooperative called Oil Spill Mutual Aid Group (OSMAG) modelled along the same lines as the OSRL, EARL, GACMAO and AMOSC and has been working well since its inception. The OSMAG led to the formation of the Pollution Control Centre in Mombasa where the oil industry and Kenya Ports Authority invested in a large inventory of OSR equipment and training of a national Oil Spill response Action Plan (OSRAT); today, the country has the hardware and software to respond to a Tier II oil spill within Kenyan territorial waters. Similar progress has been made in inland OSR preparedness and response capabilities which the article does not acknowledge. Additionally, a number of years ago, downstream sub-sector jointly produced a Highway Emergency Response Plan (HERP) to identify risks associated with incidents such as oil spills from tank-truck rollovers.

While I'm not defending the oil industry, I can confirm that the vast majority of oil companies in Kenya (upstream, midstream and downstream) are proactive in management of EHS and have reached various levels of maturity. Over the years, EHS has evolved in the petroleum sector and is one of the few sectors in Kenya that has a low incident and spill rates. In fact, my view is that the oil industry in Kenya is way ahead of many countries in Africa and the Western Indian Ocean and is a pacesetter on EHS matters.

In my view, the authors could have done a better job of writing a balanced article if they had interviewed EHS professionals from the oil industry that have intimate practical knowledge about the sector."

SURINAME: NATIONAL CONTINGENCY PLANNING WORKSHOP IN PARAMARIBO



October 17 - The Nationaal Coordinatie Centrum voor Rampenbeheersing (NCCR) hosted a workshop on National Contingency Plans with representatives from different ministries and members from each of the nation's coastal districts. Instructors from the Regional Activity Center (RAC) in Curacao and Polaris Applied Sciences, inc. put on the 3 day workshop which included developing and reviewing a National Contingency Plan and a formal assessment of the countries planning and preparedness program.

[Thanks to Matt Richards, Consultant to IMO, RAC/REMPEITC – Caribe]

TRINIDAD & TOBAGO: NATIONAL CONTINGENCY PLANNING WORKSHOP IN PORT OF SPAIN

October 22 - The Ministry of Works and Transport hosted a workshop on National Contingency Plans with representatives from the Ministry of Energy and Energy Industries, Environmental Management Authority, Ministry of Agriculture Land & Fisheries, Institute of Marine Affairs, Ministry of Health, National Helicopter Services Ltd, Office of Disaster Preparedness and Management, Occupational Safety and Health Agency, The Port Authority, Point Lisas Industrial Port Development Company, Air Guard, Coast Guard, National Petroleum Marketing Company, Maritime Services Division, and the Fire Service. Instructors from the Regional Activity Center (RAC) Regional Marine Pollution Emergency Information and Training Center (REMPEITC) in Curacao and Polaris Applied Sciences, inc. put on the 3 day workshop which included developing and reviewing a National Contingency Plan and a formal assessment of the countries planning and preparedness program. [Thanks to Matt Richards, Consultant to IMO, RAC/REMPEITC – Caribe]



UK: MARITIME & COASTGUARD AGENCY - CONSULTATION ON RECASTING THE MERCHANT SHIPPING (PREVENTION OF OIL POLLUTION) REGULATIONS

October 29 - The purpose of the proposed Regulations is to bring up to date the UK's transposition of the International Maritime Organization's (IMO) International Convention for the Prevention of Oil Pollution from Ships (MARPOL Annex I) into domestic law. At the same time, it is proposed that they will introduce Ambulatory Reference with the Regulations to incorporate any future amendments to the technical aspects of the Convention (the detail which is of a more technical nature) of MARPOL Annex I into UK law by reference on an ongoing basis, instead of transposing it provision by provision.

This consultation ended on 29th October 2018. [Read the Consultation Report and related documents](#)

See also [Guidance concerning International Convention for the Prevention of Pollution from Ships \(MARPOL\) Surveyors](#)

USA: NOAA OR&R - 2018 ACCOMPLISHMENTS: THE FISCAL YEAR IN REVIEW

November 2 - For NOAA's Office of Response and Restoration (OR&R), Fiscal Year 2017 was a year filled with new challenges and new achievements — including providing scientific support for over 200 pollution-related incidents, a prolonged response to the 2017 hurricane season, and ongoing research into the detection of oil thickness via remote sensing.

OR&R puts out an annual report as an overview of the efforts in oil and chemical spill response, shoreline restoration, marine debris reduction, disaster preparedness, and the many other tasks OR&R handled during the previous fiscal year.

NOAA OR&R / [Read more](#) [View the OR&R 2018 Accomplishments Report.](#)

ISCO NEWS

UPCOMING OVERSEAS EVENTS – TURKEY AND AZERBAIJAN

Owing to a full calendar your Secretary, Matthew Sommerville, regrets that he has been unable to accept invitations to speak at these events. He would like to pass on his best wishes for every success and will miss not being able to meet members and friends this time. Executive Committee Member, Kerem Kemerli and Houcine Mejri, Director of the Mediterranean Oil Industry Group (MOIG), an Industry Partner of ISCO, are both much involved in the Istanbul event. Member of ISCO Council for Azerbaijan, Osman Tarzumanov, and Elkhan Mammadov will be in Baku. ISCO brochures will be available at both events for interested attendees.

OBITUARY

IN MEMORIAM: SJON HUISMAN



Last week we received the very sad news of the passing away of Mr Sjon Huisman at the age of 65 years.

Sjon worked for 45 years for the Dutch government, mainly at the response organisation of Rijkswaterstaat. He got involved in the early days of this work and was always very much committed to advancing spill preparedness and response for clean seas. Sjon was one of the driving forces behind the Bonn Agreement. Both on a national and international level, he made large contributions and had a huge network. Because of his good humour and friendly character most involved people knew Sjon.

We remember Sjon as a strong personality, always working with passion and high energy. We lose a great deal of knowledge and experience on spill response. Next to his work in spill response, Sjon loved road cycling. First in competition, later with his son on holidays. Fortunately, he was able to do this until recently. We will all miss him. Our thoughts go out to his family and friends. [Thanks to Dennis van der Veem, Member of ISCO Council]

NEWS FROM ISCO MEMBERS

Note from Editor: If sending info for publication in this section, please ensure that text and photos are in a format capable of being easily copied and pasted for reproduction in the newsletter.

LAMOR TO SUPPLY OSR VESSELS TO THE DANISH GOVERNMENT



October 22 - Lamor recently delivered Ultra Shallow Draft vessels to the Defence Ministry of Denmark. The scope of delivery consists of 18 vessels, LSLC 9300 (9.3 m long) and LSLC 7400 (7.4 m), designed for safe oil spill recovery operations in coastal waters and open sea under adverse weather conditions. The landing crafts, manned by the "Danish Emergency Management Agency" (DEMA), are also meant to serve as workboats in other tasks and operations as well as support for other vessels.

The vessels are equipped with diesel inboard engines with bottom cooling/closed cooling system, enabling them to sail in oil/oil polluted water, cranes with grab

for recovery of heavy/very viscous oil products, and specially fitted side cassettes for oil spill recovery operations with a recovery capacity of 20m³/h. All tanks have oil bag inserts for easy disposal of recovered oil. The LSLC 7400s have four 350 liter open tanks and the LSLCs have six 1,000 liter tanks. <https://lamor.com/>

INDIA: ALPHAMERS WINS SME INNOVATION AWARD

In the picture: Ajin Reuban, Technical manager of AlphaMERS receiving the award from Honorable CM of Meghalaya Conrad Sangma at the Assocham organised event in New Delhi on 24th October'18.

ISCO corporate member AlphaMERS Ltd has once again won the runner up Assocham award for SME innovation excellence in 2018.

This is the 3rd innovation award won by this Bengaluru based firm since 2015. It was listed among the 50 best Indian SME list of Assocham in 2016.

The firm is engaged in developing and deploying solutions in river clean-up and ocean renewable energy.

<https://www.alphamers.com/>



DOCUMENTING DECADES IN OIL SPILL CONTROL: MINIBYTES # 4



THIS IS THE FOURTH 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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“Out of sight, Out of mind”

Putting it simply, most oils float on water. Well..., a few don't; some float for a while; and many disappear with time due to evaporation, decomposition, and/or natural mixing within the water column. So far my discussions have not been specific to any one type of oil (i.e., crude oil, diesel, gasoline, lubricating oils, etc.), and I have not attempted to explain how floating oil behavior and cleanup techniques vary with fresh water, sea water, the presence of ice, etc. If I am lucky, and can manage to blog for another 10 years I might just get to about half of these issues! Of course, at “90” I'd probably be more concerned with what might get clogged than blogged. So for now, let's move quickly to another important lesson learned involving oil spills. That is, the “Sinking” of oil and how such sinking actually involves all oils and all types of water at some point, while placing significant constraints on the time available for response, the selection of meaningful tactics, and special consideration of potential environmental impacts below the water's surface.

In my previous blog (#3), I covered some of the oil spill techniques and inefficiencies observed during the 1969 blowout off Santa Barbara, California. Some of the lessons learned about booming and the skimming of floating oil during that event were quickly and painfully recognized. One lesson, however, seemed as illusive and slippery to grasp as the oil itself – the tendency for oil to sink, either as a natural process, or worse, from the deliberate attempt to put the oil out of sight and therefore, perhaps, out of mind! For weeks following the blowout, there were widespread nearshore and shoreline cleanup efforts to broadcast straw and other materials onto floating and stranded oil. While oil can adhere to and/or absorb into hundreds of natural and manmade products (straw, hay, hair, peat moss, etc.), the recovery of these oily products is often a difficult, labor-intensive effort. And, if not done quickly such oil soaked materials often sink, especially when they've come into contact with beach sand or some other particulates. I witnessed the sinking of oil as it drifted into brown muddy water exiting the mouths of rivers near Santa Barbara. Curious about the oil's subsurface distribution, I made dives to examine the sea bed in those regions. One did not have to be an expert marine biologist to see and acknowledge the significant impact of vast stretches of oily sediments and materials on the bottom. Some of the oily layers were several inches thick with the consistency of mayonnaise.

For quite some time after the spill there was talk about the use of sinking agents to treat floating oil. Finding it unbelievable that anyone would deliberately sink oil, I started thinking about ways to study this idea and hopefully build an awareness of the potential for serious impacts. A very good friend of mine, who by the way was a fellow-diver during our oil seep studies, agreed that we should set a goal to better understand the sinking of oil. This good friend (and Best Man at my wedding!) is Dr. Roger S. Schlueter (RSS), now retired in Santa Barbara. He, by the way, is the diver/pilot I referred to in my previous blog (#3) where innocent spill volume estimates for the blowout had already gotten us in trouble with some groups. Well..., to make a long story very short, RSS and I brought another good friend and “Seep Creep”, Leland E. Fausak (LEF) into our plan, and over a period of about 3 years we accomplished the following:

1. A plan was developed for the study of several oils and sinking agents using a seafloor habitat so that we could live in and work from that habitat, conducting experiments on the fate, behavior and impacts of sunken oil over an extended period of at least a week.
2. We secured approval and funding from the National Oceanic and Atmospheric Administration (NOAA) and the Environmental Protection Agency (EPA) for the three of us to spend a week in Hydro-Lab, a subsea research habitat in 50 feet of water near Grand Bahama Island (Photo 1).
3. With the support of our employer at that time, Marconsult, Inc., we completed an advanced diver-training course run by the University of Southern California at Catalina Island, giving us the opportunity to study and prepare for the tasks and conditions we'd face during a 7-day saturation dive.



Photo 1. Hydro-Lab (~20ft by 8-ft diam.) at 50ft depth.

4. A week-long stay in Hydro-Lab was completed in January, 1973, during which we conducted several evaluations of the properties, transport and degradation of several deliberately sunken oils, and tested procedures that could be used to determine the effects of sunken oil on benthic (bottom-dwelling) organisms (Photos 2 & 3). This effort became Phase I, and the results were used to plan for a second saturation dive a year later.

5. Phase II was approved and funded once again by NOAA with support from the Marine Services Division of Dames & Moore in May, 1974 involving lessons learned during Phase I. Phase II, also at Hydro-Lab, focused on physiological and behavioral responses of marine organisms to submerged oil. Studies included natural habitat alterations, forced stress through direct association with oil, and oil degradation.



Photo 2. Pre-mixed crude oil & sinking agent with screened frame.

The observations and results of these Hydro-Lab studies were presented at the Offshore Technology Conference (OTC) in Houston (May, 1974); live communications, including a video of our experiments, were established between the divers in Hydro-Lab (Phase II) and attendees at OTC; and reports were submitted in the Hydro-Lab Journal, a Bulletin of the Hydro-Lab Underwater Research Program, Freeport, Grand Bahama Island. Study results submitted to the funding organizations are too lengthy to present in this blog; however, the research conducted at Hydro-Lab provided basic physicochemical and operational information that confirmed the value of prolonged seafloor observations of sunken oil. Divers, working for many hours each day could monitor, sample and evaluate the fate, behavior and impacts of oil on benthic and epibenthic plants and animals.



Photo 3. Diver distributing light concentration of oil/agent mix.

Decompression from prolonged exposure to pressure at a 50-ft depth need only be conducted once, lasting 14 hours at the end of the dive. It was possible to simulate some of the conditions and dosages that might result from natural and/or deliberate exposures of oil reaching the seabed after a spill. The potential for sunken oil to impact plants and animals, especially tiny organisms (infauna) within bottom sediments, could be observed and studied up close.

We noted that very little degradation of the sunken oil took place within the 1-week exposures of oil on the seabed, and oil losses of typically 20% or less occurred with oils separating from sediments and commercially available sinking agents. The persistence of the oil and potential impacts on the seabed and coral knolls, even with relatively light concentrations, led to plans for future experiments involving higher dosages and longer exposures. While the lack of funding for such experiments prevented further oil impact studies of this nature, enough was learned and passed on to responders, the public and regulators to eventually help ban the use of sinking agents on oil spills, and to tighten the standards by which even sorbents and other treating agents (manmade or natural) could be used. Following the Hydro-Lab experiments, I had the opportunity to witness dozens of major oil releases to the sea under a broad range of conditions. Those experiences confirmed my belief that every effort should be made to keep oil from reaching shore, and from making contact with the diverse, often abundant and most sensitive life forms near, on and below the seabed. As I continue to address the pros and cons of various spill response options, lessons learned, etc., I hope that the trade-offs associated with each option become a bit clearer, helping to stimulate dialogue regarding meaningful guidelines and regulations for the use of those options.

In closing, I just have to confess that the Hydro-Lab experience was not all work and worry about the future of critters on the seafloor. Shortly after arriving at the Hydro-Lab habitat, we discovered some rather unique constraints. Living in such tight quarters meant that the lab's occupants should make every effort to keep all personal emissions (vapors, liquids & solids) outside! While diet was easily controlled by our support team, the elimination of by-products was to be conducted in the same manner as other natural critters of the sea. This took some practice! Once agreeing that NO PHOTOS would be permitted during such activity, we each became quite skilled at swimming quickly (usually naked) to a favorite, private hiding spot behind a coral knoll away from the habitat. All became reasonably routine until one afternoon the peace and quiet within the habitat was abruptly broken by the screeching word choices (#@%!*\$#) of Dr. RSS as he burst up through the entry port of the habitat, looking like he had been chased by a shark. His garbled words soon revealed that half way through his "mission", he had become the main attraction of a group of unannounced,

CONTRIBUTED ARTICLE (CONTINUED)

visiting divers from the mainland. To this day, I still derive great pleasure in visualizing that class of divers, watching a panicky, human-like life-form, dressed only in the latest face mask and SCUBA tank, scrambling to get to the habitat, while leaving a strange trail of..., let's say, debris, behind. Surely, those diving students got a quick lesson on how to breathe from a regulator while bursting out in laughter!

TO BE CONTINUED

SCIENCE & TECHNOLOGY

WHERE DOES YOUR RECYCLED PLASTIC GO? PERHAPS INTO FUTURE HIGHWAYS.



Photo: TechniSoil Industrial says its roads are eight to 16 times more durable than traditional pavement. (TechniSoil Industrial)

October 28 - Until about a year ago, few people had reason to wonder where the plastic they tossed into the recycling bin ended up. It was being made into new bottles, bags, straws and beach balls, right?

Wrong: Almost half of it was shipped to China. Then, China announced last year that it didn't want to buy the stuff anymore.

So, what should we do with all that plastic choking the world's landfills? Why not recycle it and use it to build roads?

Bound together with plastic polymers, the asphalt will be cheaper and last longer than conventional pavement, according to independent experts.

One European firm already is combining plastic pellets with hot-mix asphalt to resurface roadways. A U.S. company says that once it finds financial backing, its product "could be deployed

within six months" with a process that combines asphalt milled from the road's surface with plastic urethane.

There are several reasons that roads infused with plastic last longer. One company, TechniSoil Industrial, says its roads are eight to 16 times more durable. A key reason has to do with something the industry calls "flow," a term that translates best to "flexibility." When the weight of a vehicle presses down as it passes over the asphalt, that pavement doesn't spring back to 100 percent.

"It flexes back only a percentage" of what it once was, said Sean Weaver, founder of TechniSoil. "Well, that's why you get potholes and roads start to fall apart. What we've found with using plastic [in the recycled asphalt mix] was that we had zero flow."

Weaver said his California-based company does pothole work for about 100 West Coast cities, using a plastic-mix process called TrowelPave.

"The cities are just amazed they can fix a pothole and never go back to that pothole," said Weaver, who needs to get more funding for his small firm before it can engage in full-fledged road paving. "The road will fail around it before the pothole fails."

Weaver's paving process, which combines recycled asphalt with MDI (methylene diphenyl diisocyanate) urethane, was tested for five years by the University of Nevada at Reno. The Washington Post / [Read more](#)

USA: GRAD STUDENT SETTA STUDIES MICROBIAL INTERACTIONS TO INFORM OIL SPILL RESPONSE STRATEGIES

October 30 - Phytoplankton and bacteria in the northern Gulf of Mexico interact closely at the food web base and provide vital food and nutrients to marine life at higher trophic levels.

During the Deepwater Horizon incident, these pervasive organisms played an important role in oil bioremediation before and after the application of chemical dispersants, which broke up surface slicks into smaller droplets and enhanced microbial degradation.

Samantha "Sam" Setta, who recently completed her master's degree, used molecular-level techniques to learn how oil and dispersant exposure affects the abundance of and interactions between Gulf bacteria and phytoplankton.

Phytoplankton are microscopic photosynthesizers that transform atmospheric carbon dioxide into food for grazers and other microscopic heterotrophs. Bacteria then recycle the used carbon into a form that heterotrophs can eat again, starting a microbial loop of recycling and reusing organic carbon.

Gulf of Mexico Research Initiative / [Read more](#)



COMPANY PROFILE

CLEAN SEA S.A. – ARGENTINA



ENVIRONMENTAL
SOLUTIONS

Clean Sea is a private owned company with more than 10 years expertise in the Shipping Industry, conceived as a young, experienced and qualified OSRO also rendering launch and Emergency Response services (Salvage) in all Argentinean waters in accordance with local coastguard regulations (OSRO-Maritime A1 rank and Salvage certification).



Above: Bunkers lightering of grounded vessel, Necochea, Argentina.



Above: Wreck Removal of sunken yacht, Buenos Aires, Argentina

With more than 30 people employed, state of the art portable equipment and a vast network of reputable subcontractors Clean Sea provides coverage for top of the line ship owners such as Odfjell, Navig8, Stena, Hafnia, D'Amico and terminals such as Cargill, Bunge, Dreyfus, Cofco and Shell among others throughout all Argentinean Sea, Rio de la Plata and Hidrovia Paraná-Paraguay.

The company participated in most important clean-up operations in the last years both in the Parana River and Argentinean Sea where ITOPF was involved and assisted 15 stranded vessels successfully together with T&T Salvage LLC to whom we provide local support in salvage operations.

Clean Sea continues to grow rapidly, strengthen relations with current customers in its core businesses and expand its services in the Oil & Gas industry where Argentina expects to develop in unexplored areas after the release of License Round N°1.

24 HOUR EMERGENCY RESPONSE +5491136929797

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BUSINESS OPPORTUNITY

USA: ARGONNE SEEKS PARTNERS TO COMMERCIALIZE OLEO SPONGE TECHNOLOGY

The Oleo Sponge, developed by Argonne National Laboratory, is a novel absorbent for removing oil spills from water. It can absorb up to 90 times its own weight in oil, is reusable, and can collect oil both above and below the water's surface. The product is created from low-cost materials by chemically treating a polymer foam such as polyurethane. Ordinary polyurethane foam is not effective for removing oil from water because the surface of polyurethane is neither oleophilic (oil-attracting) nor hydrophobic (water-repelling). When polyurethane foam is immersed in an oil/water mixture, it will absorb both substances more or less equally. In contrast, Oleo Sponge is simultaneously highly oleophilic and highly hydrophobic, so that it rapidly and selectively absorbs oil from an oil/water mixture. These properties are imparted by performing a 2-step surface chemical treatment. In the first step, the foam is impregnated with an ultra-thin, inorganic coating using sequential infiltration synthesis. This coating primes the surface for the second step in which the resulting surface is functionalized with an oleophilic monolayer using silanization, a self-limiting surface chemical reaction. Oleo Sponge was recognized by R&D Magazine in 2017 with an R&D 100 Award for technology innovation.

<https://www.anl.gov/article/argonne-seeks-partners-to-commercialize-oleo-sponge-technology> Licensing: Contact 1-800-627-2596 or partners@anl.gov [Thanks to Technology Innovation News Survey <https://clu-in.org/products/tins/>

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 7th November. [More info](#) To request a copy of the detailed workshop and exercise agenda please contact houcine.mejri@moig.org.tn

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, ITOPF, 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

GUINEA: NATIONAL WORKSHOP ON SHORELINE RESPONSE TO OIL SPILLS

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

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/>

CUBA: NATIONAL WORKSHOP ON CONTINGENCY PLANNING AND IMPLEMENTATION OF THE OPRC CONVENTION.

Cuba, November 13-15. The objective of the workshop is to provide information to the participants and create a greater understanding and appreciation of the National Oil Spill Response Contingency Plan and the requirements, policy, and procedures for implementation in the case of a National Oil Spill response. [More info](#)

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](#)

AZERBAIJAN: INDUSTRIAL SAFETY IN OIL AND GAS: OIL SPILL RESPONSE AND INFRASTRUCTURE SAFETY

Baku, November 19-21. The main goal of this annual conference and exhibition is to provide HSE specialists from oil companies, refineries, ports, terminals as well as ship-owners with information about effective approaches and latest cost-effective technologies, equipment and solutions for industrial safety and oil spills prevention, monitoring and recovery. For more information please contact: George Pirchalaishvili, georgep@ccapital.co.uk +44 208 349 1999 [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 ITOPF. Practical exercises and case studies will be included in the training course. [More info](#)

RESPONSE EVENTS DURING NOVEMBER 2018 (CONTINUED)

FRANCE: POLLUTEC 2018: ECO TRADE SHOW & CONFERENCE

Lyon, November 27-30. The 28th 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 |
|--|----------------|---|----------------------|
| For more information click on Title of Event | | | |
| UAE | Postponed* | RECSO EnviroSpill Conference & Exhibition | Abu Dhabi |
| UK | Dec. 5-6 | Salvage & Wreck Removals Conference | London |
| UK | Dec 5 | Maritime Accidents & Emergencies Summit | London |
| GERMANY | Dec. 5-6 | 13th Arctic Shipping Summit | Hamburg |
| TOGO | Dec. 5-7 | Workshop on liability and oil spill compensation | Lomé |
| CHINA | Dec. 6-7 | Oil Spill Response Workshop (OSRW 2018) | Beijing |
| COUNTRY | 2019 | TITLE OF EVENT | LOCATION |
| USA | February 4-7 | Gulf of Mexico Oil Spill & Ecosystem Conference | New Orleans, LA |
| SAUDI ARABIA | February 19-21 | PetroEnvironment 2019 | Al Khobar |
| FRANCE | March 5 | CEDRE Information Day | Paris La Défense |
| USA | March 26-27 | SCAA Annual Meeting & Conference | Arlington, VA |
| USA | April 16-18 | Clean Waterways Conference | Cincinnati, OH |
| USA | May 14-17 | Hands-on OSR Strategies and Tactics Training | Leonardo, NJ |
| AUSTRALIA | May 20-24 | SPILLCON 2019 Conference and Exhibition | Perth |
| CROATIA | May 28-30 | ADRIASPILLCON 2019 Conference and Exhibition | Opatija |
| CANADA | June 4-6 | 42 nd 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 |
| COUNTRY | 2020 | TITLE OF EVENT | LOCATION |
| 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

[Alga Chronicle](#)

[AMSA Aboard](#)

[ATRAC Newsletter](#)

[BIMCO Bulletin](#)

[Newsletter from George Holliday](#)

[Bow Wave](#)

[Cedre Newsletter](#)

[EMSA Newsletter](#)

[IMO News Magazine](#)

[IMO Publishing News](#)

[Intertanko Weekly News](#)

[JOIFF "The Catalyst"](#)

[Maritime Executive Magazine](#)

News from Australia on Contaminated Land Remediation

News from the Australian Maritime Safety Authority

News from the Adriatic Training and Research Centre

Marine and shipping-related news from BIMCO

News and commentary on HSE issues from George Holliday

Sam Ignarski's Ezine on Marine & Transport Matters

News from Cedre in Brittany, France

News from the European Maritime Safety Agency

News from the International Maritime Organization

New and forthcoming IMO publications

International news for the oil tanker community

Int'l Organisation for Industrial Hazard Management

Often contains articles of interest to the spill response community

August 2018

December 2017

Sept. 2018 issue

Sept. 2018 issue

On request email

Current issue

July-August 2018

October 2018

Autumn 2018 issue

October 2018

Nov. 26, 2018

October 2018 issue

March-April, 2018

LINKS FOR DOWNLOADING & READING OTHER PUBLICATIONS (CONTINUED)

| | | |
|---|--|--------------------|
| MOIG Newsletter | News from the Mediterranean Oil Industry Group | October 2018 issue |
| Nautical Institute News | News from the Nautical Institute | June-July, 2018 |
| Navigate Response | Global crisis communications network for shipping & marine | September 2018 |
| NOAA OR&R | Weekly round-up of news from NOAA's Office of Response & Restoration | Latest issue |
| OCIMF Newsletter | News from the Oil Companies International Marine Forum | September 2018 |
| OHMSETT Gazette | Oil Spill Response Research & Renewable Energy Test Facility Quarterly | Spring 2018 |
| PEMSEA E News | Healthy oceans, people and economies in the East Asian Seas | October, 2018 |
| Pollution Online Newsletter | News for pollution prevention & control professionals | October 31, 2018 |
| Safe Seas, Clean Seas | Quarterly Newsletter from Maritime New Zealand | July 2018 issue |
| Salvage World | Quarterly Newsletter of the International Salvage Union | Current issue |
| Sea Alarm Foundation Newsletter | Oiled wildlife Preparedness and Response news from Sea Alarm | Spring 2018 issue |
| Spill Alert | Newsletter from the UK Spill Association | December 2017 |
| Technology Innovation News Survey | News from US EPA – Contaminated Site Decontamination | Sept. 16-30, 2018 |
| USA EPA Tech Direct | Remediation of contaminated soil and groundwater | November 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

THE LITTLE BLACK BOOK – ADVERTISING DISCOUNT FOR ISCO MEMBERS

The Little Black Book of Oil Spill Contractors has been in publication since 2001 and is the only directory dedicated to listing oil spill contractors world wide. The book spans 150 pages, and lists the contact details of over 1,200 oil spill clean-up contractors in 50 countries. You can see some sample pages from the 5th edition [here](#).

ISCO is pleased to announce that the publisher of the Little Black Book is offering ISCO members a 10% discount on the cost of new applications for display advertisements in the 8th edition of the directory which aims to go to print late 2018, early 2019

Cleanupoil.com is a complimentary website for the Little Black Book of oil spill contractors.

The website directory is published in a booklet – The Little Black Book which is distributed at major oil spill conferences. The book and web site work hand in hand, advertisers have the opportunity to work with either media.

Print advertisers in the Little Black Book get a complimentary logo on Cleanupoil.com

Cleanupoil.com does not only rely on the internet for promoting awareness, you will find us at trade shows, conferences and exhibitions specializing in oil spills and hazmat.

Cleanupoil.com is a prime reference for responders – see what others have to say, we know we can provide you with excellent exposure.

Cleanupoil.com is a unique web site that offers unrestricted access to key information required by oil spill responders. This free access encourages viewers to come back time and again, this shown by the large number of user sessions we experience every month.

Why not take advantage of this high level of interest and get your company in front of all these spill professionals!

To find out more please visit <https://www.cleanupoil.com/little-black-book/>

Or contact the publisher at Tel +1 (321) 298 8281 or Email Stewart@cleanupoil.com

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