ISCO INTERNATIONAL SPILL CONTROL ORGANIZATION ESTABLISHED 1984

NEWS

THE NEWSLETTER OF THE INTERNATIONAL SPILL RESPONSE COMMUNITY

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HEADLINE INTERNATIONAL NEWS

HISTORIC CLIMATE DEAL SEALED AT COP27 AS CLIMATE CONFERENCE TAKES A LEAP TO SAVE LIVES AND LIVELIHOODS

Sharm El-Sheikh, Egypt, 20 November 2022 – Today at the United Nations Framework Convention on Climate Change Conference of the Parties (COP27) Parties agreed to the establishment of a historic loss and damage fund as part of the Sharm El-Sheikh Implementation Plan on climate change after loss and damage included in the agenda for the first time. The new fund will see donors contribute to a global fund to save lives and livelihoods from climate change related disasters.

The agreement saw Parties recommit to keeping the 1.5°C target for global temperature rise intact and significant progress made across the board on climate issues.

The agreement comes despite the significant economic and geopolitical challenges of the last year and follows negotiations that ran into extra time and saw the Presidency and Parties locked in detailed discussions around the clock.

Speaking in the closing plenary,COP President H.E. Sameh Shoukry said: "The work that we've managed to do here in the past two weeks, and the results we have together achieved, are a testament to our collective will, as a community of nations, to voice a clear message that rings loudly today, here in this room and around the world: that multilateral diplomacy still works….despite the difficulties and challenges of our times, the divergence of views, level of ambition or apprehension, we remain committed to the fight against climate change…. we rose to the occasion, upheld our responsibilities and undertook the important decisive political decisions that millions around the world expect from us."

COP President Shoukry continued, "This was not easy. We worked around the clock. Long days and nights. Strained and sometimes tense, but united and working for one aim, one higher purpose, one common goal that we all subscribe to and aspire to achieve. In the end we delivered."

The agreement saw considerable advancements across the board and pledges by developed countries in relation to Mitigation, Adaptation, Finance and Loss and Damage for developing countries in line with the Egyptian COP27 Presidency's vision for the COP.

The issue of loss and damage was, for the first time, central to the agenda at COP and progress on its financing is a pivotal part of COP27's success.

Read more at www.cop27.eg

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MORE ADVICE CONCERNING COP27

There are a great many reports on the web, below are a few

COP27 UN CLIMATE CHANGE

November 18 – UNFCCC / Read more

UN CLIMATE ACTION : DELIVERING FOR PEOPLE AND THE PLANET

November 20 – UN Climate Action / Read more

THE GUARDIAN : WHAT ARE THE KEY OUTCOMES OF COP27 CLIMATE SUMMIT?

November 20 – The Guardian / Read more

N.Y. TIMES - U.N. CLIMATE TALKS END WITH A DEAL TO PAY POOR NATIONS FOR DAMAGE

November 20 – New York Times / Read more

KEY TAKEAWAYS FROM THE COP27 CLIMATE SUMMIT IN EGYPT

November 21 – Reuters / Read more

INDIAN EXPRESS - AT COP27, ONE HIT AND MANY MISSES

November 23 – Indian Express / Read more

INTERNATIONAL & REGIONAL NEWS

BIMCO PARTNERS WITH OCEAN BOTTLE TO SUPPORT OUR CAMPAIGN TO REMOVE SINGLE-USE PLASTIC BOTTLES FROM SHIPS.

November 10 - At BIMCO, we believe there's more chance of solving the plastic crisis if many people take small steps in the right direction. On ships, even if plastics are sorted, managed and discharged to shore in a proper way, the mismanagement of that waste on land means it can still reach the ocean. This is independent of all the best efforts of the shipping industry.

As such, we believe removing unnecessary plastics from ships is our best option. By "unnecessary", we mean those plastics you simply use once and then throw away. With up to 1.75 billion plastic bottles a year being used onboard, our small steps could have a really big impact. BIMCO / Read more

COUNTRIES PLEDGE ADDED SUPPORT TO GEF FUNDS FOR URGENT CLIMATE ADAPTATION

November 15 - In an important injection of support to countries facing the worst effects of climate change, eight donor governments pledged new funding for the Least Developed Countries Fund (LDCF) and Special Climate Change Fund (SCCF) during the COP27 climate summit and several others backed the funds' ambitious goals for meeting the most urgent adaptation needs.

Announcing a total of $105.6 million in new funding, Denmark, Finland, Germany, Ireland, Slovenia, Sweden, Switzerland, and the Walloon Region of Belgium, stressed the need for even more support for the Global Environment Facility funds targeting the immediate climate adaptation needs of low-lying and low-income states.

Additionally, countries including Belgium, Canada, France, and the United States, as well the European Commission, signaled political support for the two funds, and

some expressed an intention to contribute further in the coming months. Several welcomed the SCCF's dedicated focus on Small Island Developing States as a key avenue of climate finance that is otherwise lacking. The GEF / Read more

ADVANCING TOWARDS ZERO-POLLUTION: EU JOINS CALL FOR AMBITIOUS GLOBAL AGREEMENT TO END PLASTIC POLLUTION BY 2040

November 24 - The EU is today joining the "High Ambition Coalition to End Plastic Pollution", confirming its commitment to aim high in the intergovernmental negotiations for a global agreement to end plastic pollution by 2040. In the negotiations the EU will be pushing for a legally binding instrument, ensuring urgent action, while applying a circular approach to plastics.

The High Ambition Coalition, co-chaired by Norway and Rwanda, brings together like-minded countries, advocating ambitious goals for the new legally binding instrument to tackle the growing amount of plastic waste choking our planet. The negotiations on the new treaty are starting in Uruguay on 28 November 2022 and are set to be completed by 2025. European Commission / Read more

EUROPEAN MARITIME DAY – APPLY FOR WORKSHOPS

November 24 - The European Maritime Day (EMD) is the annual two-day event during which Europe's maritime community meet to network, discuss and outline joint action on maritime affairs and sustainable blue economy.

The EMD is the place where 'Ocean Leaders Meet'. It provides an engaging and complete interactive experience to catch up on the current state of play on a broad range of issues concerning the blue economy and the marine environment and discuss ways of moving forward. It features a large number of excellent speakers, thematic sessions, stakeholder workshops and project pitch sessions organised by stakeholders and the European Commission. The EMD targets professionals from businesses, governments, public institutions, NGOs and academia.

The 2023 edition of the European Maritime Day will take place in Brest, France, on 24-25 May as physical event.
Maritime Day / Read more

NEWS REPORTS FROM AROUND THE WORLD

Editor: Many of these reports are gleaned from news provided on the websites of Environment Agencies and other national organisations, some of which are not being well maintained. ISCO does not have the resources to monitor multiple social media platforms. Your editor is grateful to those organisations that directly send him their national news reports of interest to the spill response community.

CANADA: COAST GUARD IMPROVES COLLABORATION WITH LOCAL COMMUNITIES ON INCIDENT RESPONSE

November 23 - Partnerships, collaboration, and communication are key drivers to ensuring Canada has a strong safety system in place to protect our oceans. The Canadian Coast Guard is modernizing how we collaborate with coastal communities and share information about Canada's waterways.

Today, the Honourable Joyce Murray, Minister of Fisheries, Oceans and the Canadian Coast Guard, announced $24 million in funding under the Oceans Protection Plan to implement and expand the Canadian Coast Guard's Communication Portal for Integrated Incident Response initiative across Canada. This digital tool will enable better communication, information sharing, and collaboration with partners and affected communities during on-water emergencies and exercises. The Communication Portal for Integrated Incident Response will focus on environmental response, and will later expand to include search and rescue operations and vessels of concern. Canadian Coast Guard / Read more

CANADA: FCM RESPONDS TO FEDERAL NATIONAL ADAPTATION STRATEGY AND WELCOMES INVESTMENTS IN MUNICIPAL RESILIENCY

November 24 - FCM President Taneen Rudyk issued this statement following the federal government's unveiling of the National Adaptation Strategy.

"The Federation of Canadian Municipalities welcomes today's announcement of the federal government's National Adaptation Strategy – a critical framework that will help to better protect Canadian communities from the effects of extreme weather events

made more severe by a changing climate. The announcement included a significant investment in the Green Municipal Fund (GMF) to support, accelerate, and scale up community-based climate adaptation initiatives. FCM / Read more

CHILE: CAPTAINCY OF THE PORT OF QUEMCHI PARTICIPATED IN CLEANING OPERATION ON "PIQUÉN" BEACH

November 24 - Staff of the Captaincy of the Port of Quemchi in conjunction with the I. Municipality of the Commune, with the support of volunteer personnel belonging to the Sc Johnson Company, carried out a beach cleaning day in the "Playa Pinquén" sector, managing to collect approximately a total of 300 kilos of garbage. In addition, a beach cleaning activity was added in the Aucar Island sector, "Island of the Sailing Souls", where volunteer concessionaires were able to collect a total of 200 kg. of garbage of different classification, being transferred to the municipal landfill of this commune and the rest selected and classified for recycling by the Environment staff of the Illustrious Municipality of Quemchi. Directemar / Read more

FRANCE: EMERGENCY RESPONSE ACTIVITIES – OCTOBER 2022

Cedre's emergency response team received numerous enquiries throughout October, in relation to several alerts, in particular from the Cherbourg Maritime Prefecture for a barge (with 1000 litres of diesel onboard) at risk of sinking off Dielette, from MRCC La Garde for drift forecasts and insight on sheen observed, by AEM Toulon for information on decarbonation sludge, as well as for several confirmed pollution incidents, from MRCC Fort-de-France for oil pollution in a fishing area south of Martinique, from DREAL PACA for a spill of decarbonation water into the Anse d'Auguette (300 m3 /h for several hours) then for a leak of sodium hydroxide (15 m3) again in the Anse d'Auguette, from DDTM 44 for pollution observed in Turballe fishing port which generated 3000 m² of sheen and which was confirmed to be weathered diesel following analysis in Cedre's laboratory.

For inland waters, our emergency team was contacted by the Seine-et-Marne fire brigade (SDIS 77) in relation to a leak of home heating oil, by the Oise fire brigade (SDIS 60) following a spill of fertiliser and waste water in the river Thérain, by the French Biodiversity Agency's (OFB) Côte d'Or division as a follow-up to a spill of ammonium sulphate in the Armançon river in May.

Cedre also took part in several exercises: Birvideaux 2022 organised by the Maritime Prefecture for the Atlantic and the Ragnarok 2022 exercise. MAR-ICE was also activated twice, first during the RAMOGEPOL exercise whose scenario involved a caustic soda spill near the Italian coast, and secondly during an exercise organised by the Slovenian civil protection based on a methanol spill. Cedre's emergency team was also called upon as part of an ICE exercise organised by Hungary for a scenario involving benzene.
Cedre / Read more

GHANA: EPA CALLS FOR COMMUNITY MOBILISATION AGAINST FUTURE OIL SPILL

November 24 - The Environmental Protection Agency (EPA) has reiterated that community mobilisation is key to forestall any future oil spills along Ghana's coastline. It stressed that, as Ghana continued to explore hydrocarbons, stakeholders needed to build their preparedness and resilience particularly at the local level to deal with oil spill occurrences.

A Principal Programme Officer, EPA, Western Region, Mr Kwadwo Opoku-Mensah said these at a stakeholders' workshop on the revised Ghana National Oil Spill Contingency Plan (NOSCP) held in Takoradi on Monday. All Africa / Read more

INDIA: TARBALLS DOT INDIA'S WEST COAST ANNUALLY, INDICATING CONTINUED OIL SPILLS, SHIP FUEL DISCHARGE

November 21 - Right after the monsoon spell, the coastlines of India's western states, from Maharashtra, Gujarat, and Goa to Karnataka, are lined with dark, sticky balls. These are tarballs, a "seasonal phenomena" surfacing on the west coast of India every year between April and September and cause worry to conservationists and researchers. Tarballs affect marine life and flag concerns about oil spills from an offshore oil rig along the Maharashtra-Gujarat coast in the Arabian Sea.

Unpacking the chemical characteristics and fingerprints of tarballs, researchers at India's National Institute of Oceanography (NIO) documented the sources of the 2010/11 tarballs that appeared in Goa to be from oil tanker wash, while the probable source for the tarballs on Gujarat's coasts in 2012 was the crude oil spill from the Bombay High (BH) offshore oil rig. Mongabay / Read more

INDONESIA: MONTARA OIL SPILL COMPENSATION MUST BENEFIT PEOPLE, ECOSYSTEM

November 24 - Coordinating Minister for Maritime Affairs and Investment, Luhut Binsar Pandjaitan, has asked that the compensation for the Montara oil spill be managed professionally for the benefit of the affected communities and ecosystem.

"I also suggest to establish a fishermen's cooperative to manage it (the compensation) professionally. Later, we will provide assistance, thus the money will not be misspent," he explained at a press conference on the "Update on the Montara Case Status and Dissemination on Negotiation Results" here on Thursday. The Montara oil spill occurred from August 21 to November 3, 2009. The oil field was located in the Timor Sea, off the northern coast of Western Australia, Australia. Antara / Read more

SINGAPORE: GI-SEA REGIONAL WORKSHOP ON INCIDENT RESPONSE AND RECOVERY OF COSTS

November 14 - As part of the Global Initiative for South East Asia (GI-SEA) Project, the IOPC Funds participated in a regional workshop, hosted by the Maritime and Port Authority of Singapore (MPA), from 9 to 11 November 2022. The event, which was also supported by IMO and saw the participation of the International Group of P&I Associations and ITOPF, focused on incident response and the recovery of costs following an oil spill and was attended by government representatives from Brunei Darussalam, Cambodia, Lao People's Democratic Republic, Malaysia, Philippines, Thailand, Timor-Leste, Viet Nam and Singapore.
IOPC Funds / Read more

UK: PROBE LAUNCHED AMID ONGOING FLARING AND VENTING CRACKDOWN

November 23 - An investigation has been launched into an oil and gas company for flaring and venting in the North Sea without consent. The probe by the North Sea Transition Authority (NSTA) could result in action being taken, including a fine for the company or up to the relevant licence being taken away.

Monitoring flaring and venting and reducing emissions are vital parts of the NSTA's work to help the UK Government meet the net zero target. These processes also waste gas which could otherwise be used to boost the UK's energy security. Compliance with consents is both an indicator of good management of fields by licensees and a vital pillar of a company's social licence to operate.

Under the NSTA's Strategy, licensees have an obligation to assist the Secretary of State to meet the net zero target, while optimising oil and gas production to bolster security of supply. Unauthorised flaring and venting go against this obligation.
North Sea Transition Authority / Read more

USA: WEEKLY ROUND-UP OF NEWS AND INFORMATION FROM NOAA OR&R

November 21 – Please click on the links below to download and read the latest News Reports from NOAA OR&R

CAMEO Data Manager and Tier2 Submit Updates Released

Recently, NOAA and the Environmental Protection Agency jointly released their annual updates for CAMEO Data Manager and Tier2 Submit™, two programs that aid emergency organizations in preparing for and responding to chemical emergencies.

Now Available: New Tools for Collecting and Exploring Marine Debris Data

On Nov. 3, the NOAA Marine Debris Program released an updated toolbox of materials to help assess marine debris on shorelines through NOAA's Marine Debris Monitoring and Assessment Project (MDMAP).

NEWS REPORTS FROM AROUND THE WORLD (CONTINUED)

Updates to Florida ESI Data Funded Through Deepwater Horizon Damage Assessment

The Deepwater Horizon oil spill disaster took place more than a dozen years ago, beginning on April 20, 2010, but the recovery process continues to this day.

Presentation Highlights Importance of Rivers in Marine Debris Issue

On Nov. 8, the NOAA Marine Debris Program Deputy Division Chief MaryLee Haughwout presented at a River Management Society Education Roundtable(link is external) webinar titled "Talking Trash: Approaches to prevent, intercept, and remove ocean bound plastic and debris." MaryLee shared the stage with U.S. Fish and Wildlife Service colleague Glenn Constant.

PEOPLE IN THE NEWS

STEVE PELNA HAS BEEN APPOINTED THE CHAIR OF THE SCAA PLANNING COMMITTEE

The Spill Control Association of America is excited to announce that Steve Pelna has been appointed as Chair of the Planning Committee! Steve currently has his Master of Science in Public Safety Management and is a Certified Safety Professional. He is currently the Senior Vice President of Lewis Environmental and provides daily oversight of operations, including emergency services. He is also Fire Chief of the West Chester Fire Department, an adjunct professor at West Chester University, a HAZMAT Specialist with the Chester County Hazardous Materials Response Team, and a Pennsylvania State Fire Academy Instructor. SCAA / Read more

NEWS FROM ISCO MEMBERS

Corporate Members of ISCO can by submitting news about new products and services in the "News from ISCO Members" section of the ISCO Newsletter. This is a free facility for Members. Given that the ISCO Newsletter has a large and highly targeted readership in over 50 countries, it's a cost-effective way to promote your company. If you have some news you would like to share with readers of the ISCO Newsletter, send it to John.McMurtrie@spillcontrol.org

FROM NIGEL BENNETT OF AQUA-GUARD IN CANADA

Novemmber 21 – "Hello ISCO community. Thanks so much for the support. I am proud to report that with your kind support our Sleep Out group of 60 exceeded our goal of $1,000,000 to help support our at-risk youth. It was a very cold night with temperatures hovering around freezing. It was uncomfortable sleeping in a thin sleeping bag on a piece of cardboard where the cold tarmac sucked the heat out of our bodies. It is now two days after the event and my brain is still super fuzzy, I woke today at 4:30 am with a massive headache. I lay in my warm bed thinking of youth having to sleep on the street's night after night" . - NIgel

SCIENCE & TECHNOLOGY

If you are interested in new technology you may find it useful to visit Technology Innovation News Survey at https://clu-in.org/products/tins/ and Tech Direct at https://clu-in.org/techdirect/archive/

CLEANUP 2022: 9TH INTERNATIONAL CONTAMINATED SITE REMEDIATION CONFERENCE, PROGRAM AND PROCEEDINGS

CRC Care: Cooperative Research Centre for Contamination Assessment and Remediation of the Environment, Australia. ISBN: 978-1-921431-66-1, 634 pp, 2022. The 9th International Contaminated Site Remediation Conference was held at the Adelaide Convention Center in South Australia, September 11-15, 2022. A wide range of topics was covered, encompassing vapor intrusion, permeable reactive barriers, bioremediation, chemical oxidation, emerging contaminants, socio-economic drivers for remediation, environmental nanotechnologies, sustainable remediation, innovations in site characterization, and numerous case studies. Extended abstracts from the proceedings are available fo review.
https://www.dropbox.com/s/t5jlk9abpoixw19/CleanUp_2022_proceedings_Rev_A_2UP_SEC_FINAL_10.09.22.pdf?dl=0

RECENT INTERESTING PEER-REVIEWED OIL SPILL PUBLICATIONS

A COLUMN CREATED BY DR. MERV FINGAS, MEMBER OF ISCO COUNCIL

This is part of a weekly column which provides the references and abstracts of new peer-reviewed scientific publications on oil spills. These references are selected on the basis of those papers that provide new insights into the fate, effects and control of oil spills. Readers may choose to obtain the full publications and to do so, one of three methods is suggested; contact your library, search the internet with the DOI (digital object identifier) provided, or search the internet for the exact title. These are given in the order of likely success in obtaining the article. Merv Fingas, ISCO Colleague.

208. The Influence of Oil-in-Water Preparations on the Toxicity of Crude Oil to Marine Invertebrates and Fish Following Short-Term Pulse and Continuous Exposures

Hook, S.E., Strzelecki, J., Adams, M.S., Binet, M.T., McKnight, K., Golding, L.A., Elsdon, T.S.
(2022) Environmental Toxicology and Chemistry, 41 (10), pp. 2580-2594.
DOI: 10.1002/etc.5437

ABSTRACT: Following an oil spill, accurate assessments of the ecological risks of exposure to compounds within petroleum are required, as is knowledge regarding how those risks may change with the use of chemical dispersants. Laboratory toxicity tests are frequently used to assess these risks, but differences in the methods for preparation of oil-in-water solutions may confound interpretation, as may differences in exposure time to those solutions. In the present study, we used recently developed modifications of standardized ecotoxicity tests with copepods (Acartia sinjiensis), sea urchins (Heliocidaris tuberculata), and fish embryos (Seriola lalandi) to assess their response to crude oil solutions and assessed whether the oil-in-water preparation method changed the results. We created a water-accommodated fraction, a chemically enhanced water-accommodated fraction, and a high-energy water-accommodated fraction (HEWAF) using standard approaches using two different dispersants, Corexit 9500 and Slickgone NS. We found that toxicity was best related to total polycyclic aromatic hydrocarbon (TPAH) concentrations in solution, regardless of the preparation method used, and that the HEWAF was the most toxic because it dispersed the highest quantity of oil into solution. The TPAH composition in water did not vary appreciably with different preparation methods. For copepods and sea urchins, we also found that at least some of the toxic response could be attributed to the chemical oil dispersant. We did not observe the characteristic cardiac deformities that have been previously reported in fish embryos, most likely due to the use of unweathered oil, and, as a consequence, the high proportion of naphthalenes relative to cardiotoxic polycyclic aromatic hydrocarbon in the overall composition. The present study highlights the need to characterize both the TPAH composition and concentration in test solutions when assessing oil toxicity.

209. Evolution of polycyclic aromatic hydrocarbons in the surface sediment of southern Jiaozhou Bay in northern China after an accident of oil pipeline explosion

Ding, H., Lan, J., Yao, S., Zhang, D., Han, B., Pan, G., Li, X.
(2022) Marine Pollution Bulletin, 183, art. no. 114039,
DOI: 10.1016/j.marpolbul.2022.114039

ABSTRACT: The 2013 “Qingdao oil pipeline explosion” contaminated about 2.5 km of shoreline in the Jiaozhou Bay area and aroused widespread concern because of the serious casualties even though it was not the most severe oil-spill contamination in China. To evaluate the long-term impact, we collected thirty-three surface sediment samples after 3 years of the accident, with sixteen polycyclic aromatic hydrocarbons (PAHs) detected.

Spatial-temporal variation in PAHs revealed that a minimal impact might still be present after 3 years. Source analysis combined with a one-way ANOVA showed that pyrolytic sources were consistently predominant. The environmental impact was already minimal 3 years later and negligible thereafter. Although the cancer risk has decreased over the years, there has always been a potential hazard to human for specific occupation, with all of the risk values exceeded 10−6. This study offers a reference for assessing the long-term impact of oil spills in similar bay areas.

210. . Do surfactants influence the growth of Rhizophora mangle during restoration of contaminated soil with emulsified oil?

Ojeda-Morales M.E., Domínguez-Domínguez M., Herrera-Haro J.G., Hernández-Rivera M.A., Córdova-Bautista Y., Martínez-Zurimendi P.
(2022) Restoration Ecology, 30 (8), art. no. e13639,
DOI: 10.1111/rec.13639

ABSTRACT: Mangrove forests are ecosystems subject to contamination by oil spills. The objective of this study was to evaluate the development of Rhizophora mangle plants in soil contaminated with oil emulsified with surfactants. These ecosystems have diverse and economically valuable ecological functions. Mangrove soil and propagules were collected in southeastern Mexico. The propagules were sown under greenhouse conditions and the plants were grown for 3 months. Two bioassays were applied: (1) the soil was contaminated by oil emulsified with a biosurfactant synthesized by Azospirillum lipoferum, and (2) the soil was contaminated with oil emulsified with a surfactant based on pine essential oil. Emulsified oil was applied to the substrate in containers with 3-month-old plants until several concentrations were reached (0, 30,000, 40,000, 50,000, 60,000, and 70,000 ppm).

Subsequently, 5 plants for each treatment were randomly extracted every 30 days for 12 months, and the stem length and diameter, root length, leaf area, and fresh and dry weights of the plants were evaluated. Plant development was evaluated through an analysis of variance and a test of means. At the end of the bioassay, the treatments with oil emulsified with pine oil yielded no surviving plants, whereas the treatments with oil emulsified with the biosurfactant yielded a 100% survival rate. Treatment with 30,000 ppm of oil emulsified with the biosurfactant yielded the greatest increases in the leaf area and total dry biomass. The heavy oil fraction concentration decreased by 93.9% with the 30,000 ppm treatment and by 82.64% with the 70,000 ppm treatment.

211. Indigenous oil-degrading bacteria more efficient in soil bioremediation than microbial consortium and active even in super oil-saturated soils

Ali N., Khanafer M., Al-Awadhi H.
(2022) Frontiers in Microbiology, 13, art. no. 950051,
DOI: 10.3389/fmicb.2022.950051

ABSTRACT: A microbial consortium of the hydrocarbonoclastic bacterial species, comprising Actinotalea ferrariae, Arthrobacter ginsengisoli, Dietzia cinnamea, Dietzia papillomatosis, and Pseudomonas songnenensis, isolated from oil-saturated desert soil did not consume more oil in batch cultures than the individual species with the maximum oil consumption. In oil-polluted desert soil microcosms, the rate of oil removal in the soil samples bioaugmented with the microbial consortium was similar to the rate of oil removal in the unbioaugmented ones through a 6-month bioremediation experiment.

Although the composition of hydrocarbonoclastic bacterial communities in the unbioaugmented and bioaugmented soil samples was different, the predominant bacterial species during most of the months were the same. Toward the end of the bioremediation experiment, Ar. ginsengisoli prevailed in both soil samples, suggesting its important role in oil removal. Self-cleaning proceeded in desert soil samples artificially polluted with 1, 10, 20, and 30% of crude oil and incubated at 30 °C for 6 months. Oil was removed effectively at rates reaching 73.6 and 69.3% in the soils polluted with 1 and 10% oil concentrations, respectively, and reached 50% in desert soils polluted with 20 and 30% oil concentrations. The bacterial numbers increased in all soil samples from hundreds of thousands per gram of soil samples at time zero to millions and tens of millions per gram of soil samples after 6 months. It was concluded that bioaugmenting oil-polluted soil samples with microbial consortium of hydrocarbonoclastic bacterial species with high oil removal potential did not drastically enhance oil bioremediation and that even in super oil-saturated soils, indigenous oil-degrading bacteria will prevail and effectively contribute to oil removal from the surrounding environment.

212. Numerical Study on the Influence of Model Uncertainties on the Transport of Underwater Spilled Oil

Wang D., Luo Z., Mu L.
(2022) International Journal of Environmental Research and Public Health, 19 (15), art. no. 9274,
DOI: 10.3390/ijerph19159274

ABSTRACT: Oil pollution influences marine biology, ecology, and regional sustainable development capacity, but model uncertainties limit the ability of the numerical model to accurately predict the transport and fate of the underwater oil spill. Based on a three-dimensional underwater oil spill model validated by satellite images of the oil slick at the sea surface, the Penglai 19-3 oil spill accident in the Bohai Sea was simulated; in addition, several sensitivity experiments were set up to investigate the influence of model uncertainties in the background wind, current, start time of the oil spill, and spill site on the transport of underwater spilled oil in the Penglai 19-3 oil spill accident.

The experimental results indicate that the uncertainty in the background wind has a certain impact on the simulated centroid position at the sea surface, and little effect on the simulated underwater results, while the uncertainty in the background current has a significant influence on the transport of the underwater spilled oil both at the sea surface and underwater. An uncertainty of 24 h in the start time of the oil spill can cause more than 1 time larger than the benchmark case displacement of the oil spill centroid point and sweeping area at the sea surface, as the periodic tidal current is the main constituent of the ocean current in the Bohai Sea.

The uncertainty in the spill site has a large influence on the final position of the oil spill centroid point, but the oil spill trajectories do not intersect with each other within 48 h, which makes it possible to identify the oil spill platform from the actual observations. The influence of uncertainties in the important model inputs and key model parameters on the transport of underwater spilled oil in the Penglai 19-3 oil spill accident is evaluated for the first time, which is of substantial significance for improving the prediction accuracy of the transport and fate of underwater oil spills.

213. Long-Term Petroleum Hydrocarbons Pollution after a Coastal Oil Spill

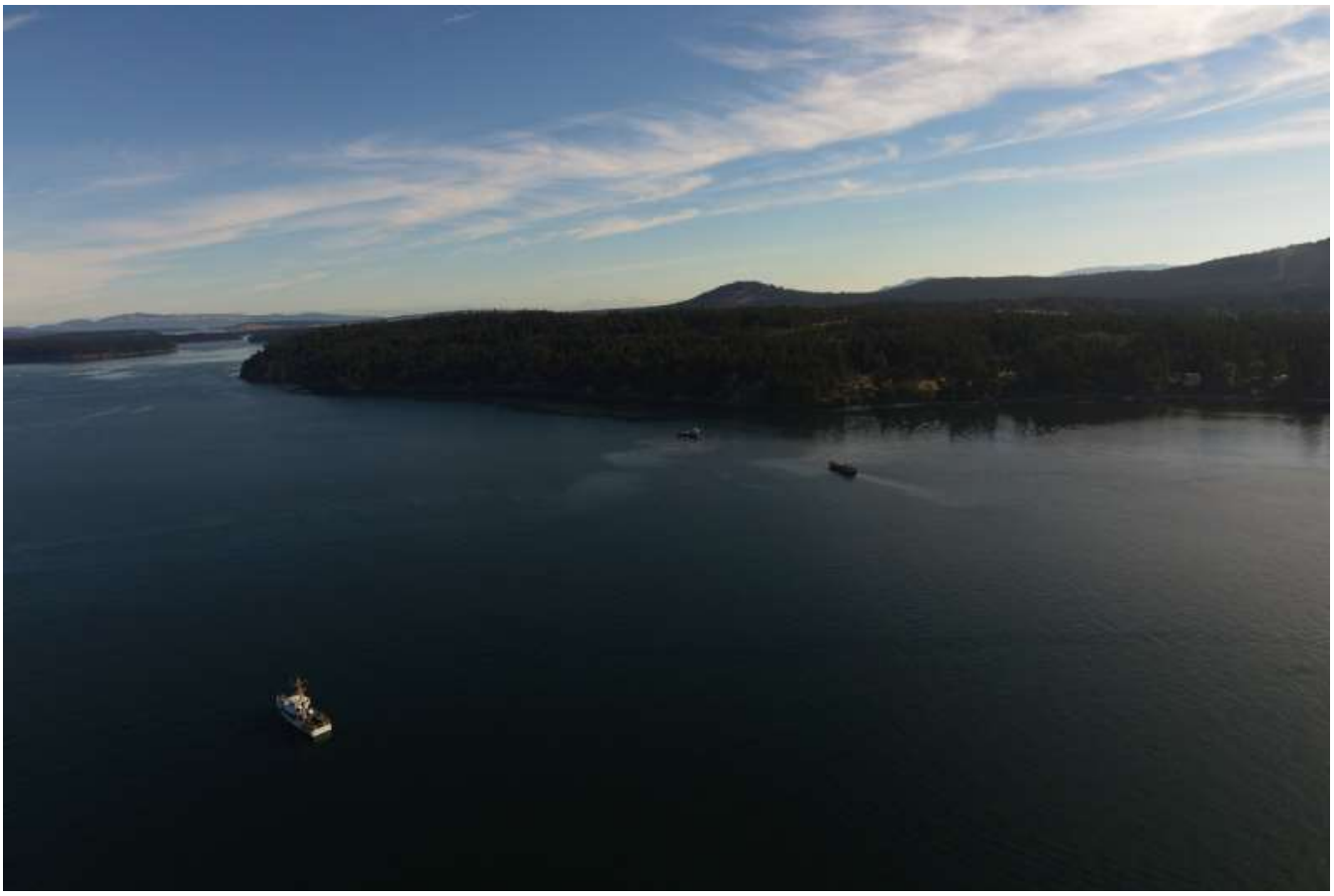
Guo W., Wang X., Liu S., Kong X., Wang P., Xu T.
(2022) Journal of Marine Science and Engineering, 10 (10), art. no. 1380,
DOI: 10.3390/jmse10101380

ABSTRACT: The long-term status of petroleum hydrocarbons in both seawater and sediment contaminated by the Dalian New Port oil spill has been investigated since 2010. Seawater recovery is relatively swift and is complete within two years, while oil contamination persists in the coastal sediments for several years. Because of the slow degradation and low mobility in sediments, they serve as long-term reservoirs for residual oils. The erosion of sediments into the water column leads to an abrupt increase in hydrocarbons during storms.

The cumulative results of hydrodynamic transport and ongoing industrial emissions lead to a spatial shift of hot spots with high petroleum hydrocarbon concentrations from the spill site to the inner corner of the bay. In addition to continuous petroleum hydrocarbon emissions from contiguous coastal outfalls, the regional oil contamination will persist indefinitely. The research provides comprehensive information for years to come to evaluate the long-term damage and multiphase medium impacts of a large oil spill.

GIVING THANKS FOR THE PARTNERSHIPS THAT MAKE A SPILL RESPONSE HAPPEN

An article from NOAA OR&R

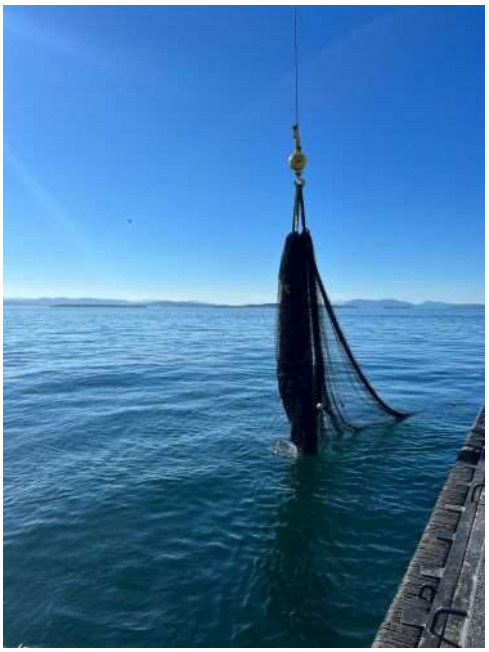


Above:*Response vessels on scene off San Juan Island, Washington. Aug. 15, 2022. Image credit: Coast Guard.*

When an oil spill happens, it's usually not just one agency that responds. Oftentimes, it's an entire spill response community that bands together to clean up the spill, protect the environment from any impacts, and begin working on recovery.

Each spill response is unique, with many moving parts and entities working together. Some are more complex than others, and require more responders to get the job done. It's spills like these that bring together those in the spill response community to work toward a common goal. This week, we'd like to share some gratitude for the partners that made a recent spill response possible.

Photo on right: A lost net is raised out of the water by the crew of the Henry Blake. Image credit: U.S. Coast Guard.



On Aug. 13, 2022, the 58-foot fishing vessel sank off San Juan Island in Washington State. Thankfully, as the F/V *Aleutian Isle* sank, all five crew members were rescued by a good samaritan vessel. Responders observed a sheen from the vessel's fuel tanks, spanning about three miles, and gradually entering Canadian waters. Due to the vessel's location, depth on the bottom, and currents in the area, this would mean a challenging response ahead. Many government agencies (federal, state, county, tribal), private spill removal organizations, and nongovernmental organizations responded to the incident—including a number of NOAA offices.

Our team at NOAA's Office of Response and Restoration contributed to resources at risk assessments and oil spill trajectory analyses to anticipate where the spilled oil may drift and what the oil may impact. Our spatial data specialists offered to provide an ERMA® (Environmental Response Management Application) ashboard as a common operational picture for the response. Our marine debris specdialists advised on entanglement issues related to the fishing vessel's nets and put together recovery plans for potential marine mammal impacts. The crew of the Coast Guard Cutter *Henry Blake* recovered approximately 1,400 feet of netting from the *Aleutian Isle*.

An Agency of Collaborators

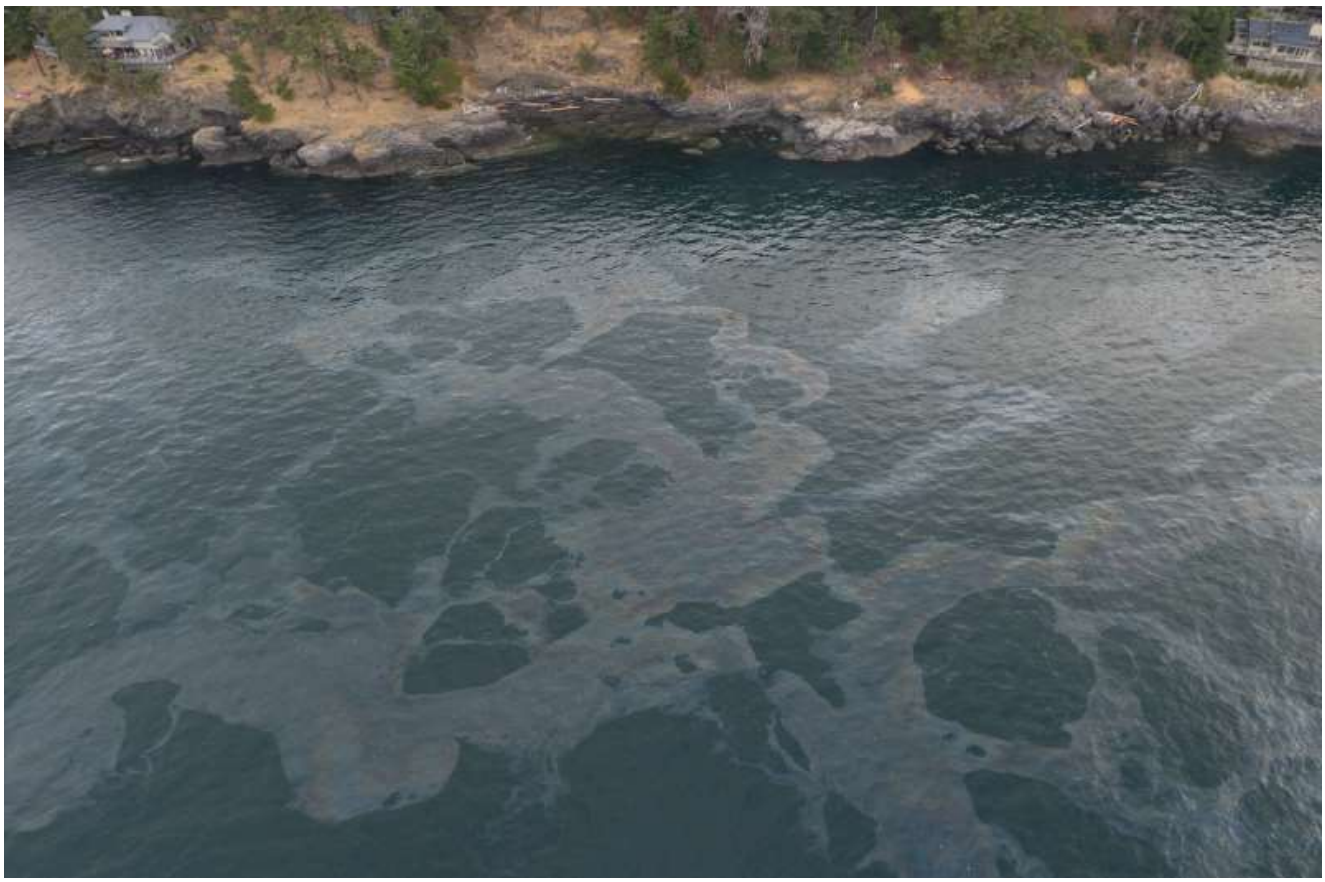


Image credit: U.S. Coast Guard.

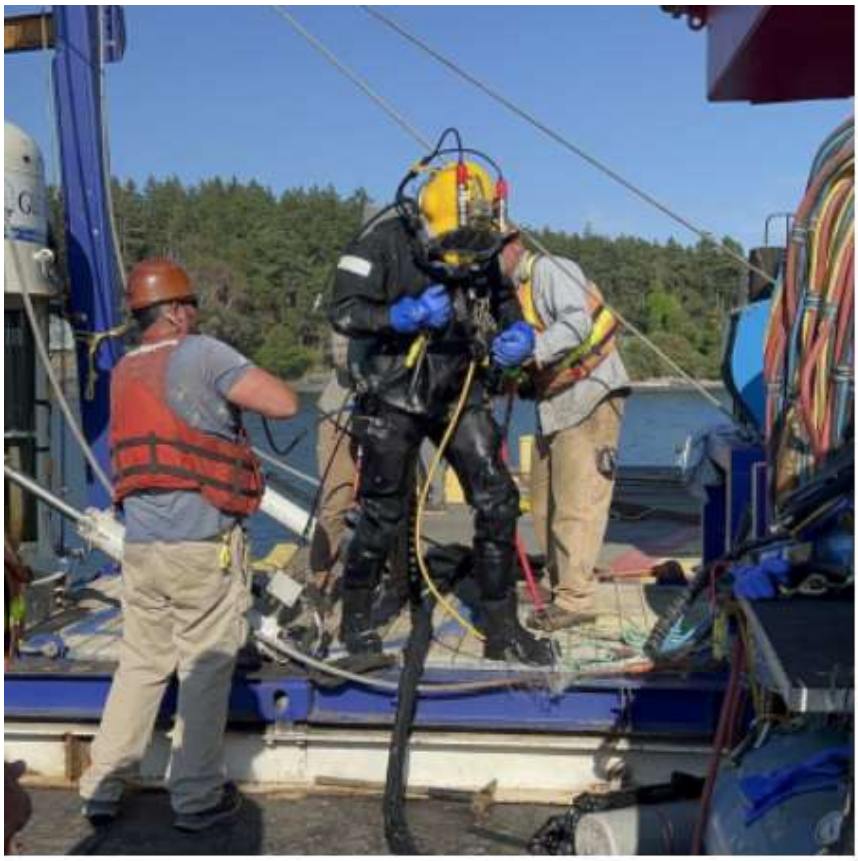
Though OR&R is one of the leading agencies in spill response, we often work closely with other offices right here at NOAA. In the San Juan Island spill, we were aided in numerous ways by our NOAA colleagues. NOAA's Center for Operational Oceanographic Products and Services created a current prediction model—the high-resolution Salish Sea and Columbia River Operational Forecast System—for on-scene responders to determine slack current windows for the very challenging technical dive and remotely operated vehicle operations.

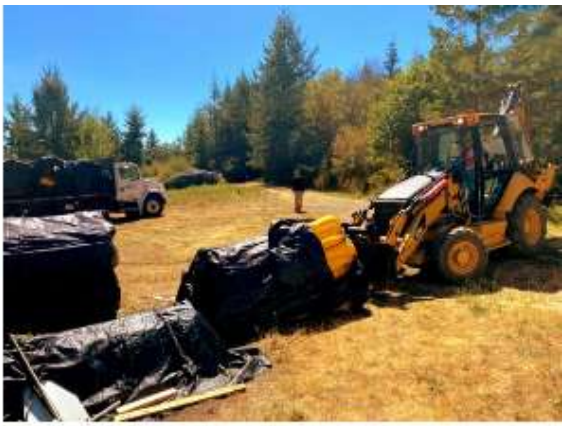
NOAA's National Weather Service provided daily and extended marine weather forecasts, and wildfire smoke conditions for responder safety. The National Marine Fisheries Service provided expertise in marine mammal response and deterrence and Endangered Species Act consultations to protect killer whales and other mammals from the oil and the response activities.

The Office of Coast Survey kept the response team up to date on the availability of response assets and equipment. Overall, through collaboration and streamlined data sharing, NOAA teams generated approximately 65 scientific products to assist this complex response.

The Boots on the Ground

Above left: HB smallboat working the adrift fishing net. 8/34/22 Image credit: U.S. Coast Guard
Above right: Air monitoring equipment on San Juan Island. 8/16/22 Image credit: Deptartment of Ecology.





Above left: Diver and crew on the barge. Aug. 31, 2022.
Above right above: Crews move boom around on San Juan Island Monday, Aug. 22, 2022. Image credit: San Juan County Office of Emergency Management.
Above right below: Response vessels deploying boom 9/17/22. Image credit: Washington Department of Ecology.

When we provide scientific support to an oil spill, it's up to the boots-on-the-ground responders to implement the information and products we provide into their on scene decision-making process. The U.S. Coast Guard, local and tribal agencies, and contractors are generally the ones doing the heavy lifting of containing the spill and carrying out recovery efforts.

As in the case with the *Aleutian Isle*, the response efforts included the deployment of over llution boom to contain the spill and protect sensitive areas. Responders also conducted aerial surveys multiple times a day, and monitored for shoreline, wildlife, and air quality impacts. Whale deterrence teams were ready to deploy if needed, and equipment such as skimmers was also at the ready.

The decision was made to try to raise the vessel from its deep resting spot, rather than pump fuel off. Forty days of work by many dedicated response groups led to a successful outcome. On Sept. 17, after weeks of complex dive operations, crews successfully salvaged the Aleutian Isle by rigging cables to lift the vessel from 250 feet below the surface and out of the water.

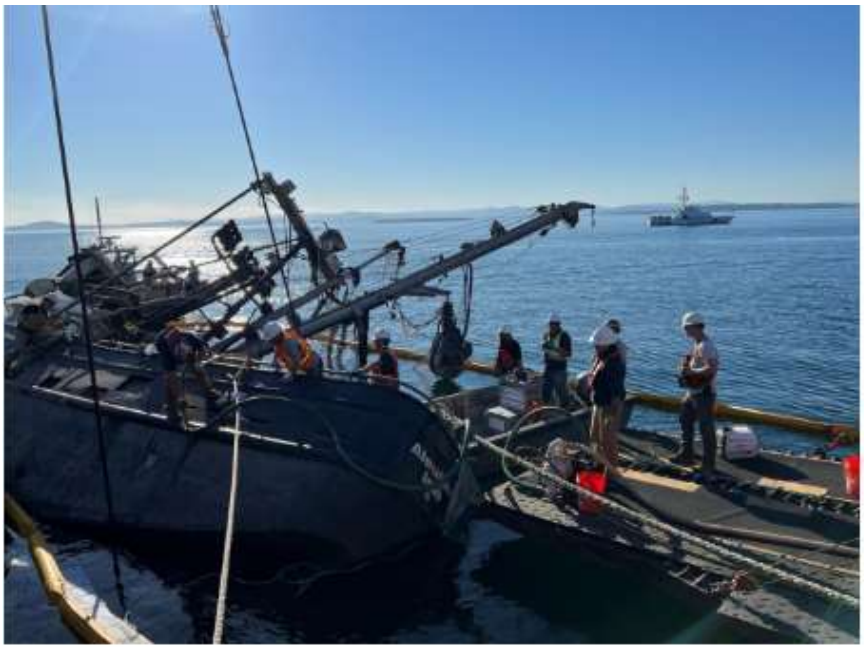
The vessel was first brought to shallower water for defueling, dewatering, and re-rigging. It was then placed on a barge lined with protective barriers to prevent additional pollution, with the barge being fully boomed as an additional precaution. Once secured, the Aleutian Isle was barged to a mainland facility for assessment.

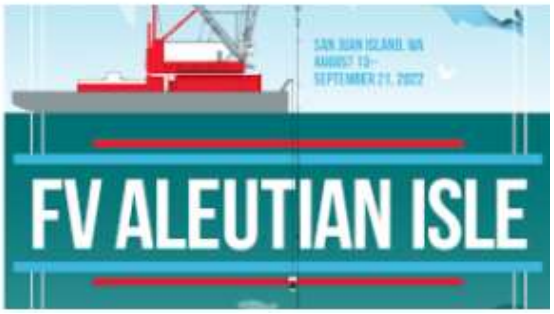
> *"We are so pleased to see the vessel safely out of the water," said U.S. Coast Guard Cmdr. Kira Moody, federal on-scene coordinator representative, in a press release. "The unique environment of the San Juan Islands and location of the vessel made this a complicated and technical response. Through the team's expertise we were able to overcome any challenge safely and efficiently."*

The Support of a Community

When a spill happens in small communities and remote areas, such as an island, the local resources available can mean the difference between a successful response and a spill with significant impacts. It can be challenging to mobilize the resources needed to isolated locations. Preparedness at a community level for these kinds of incidents is an integral part to the response efforts

CONTRIBUTED ARTICLE (CONTINUED)





Above left: Crews work Vessels and the lifted Aleutian Isle 9/21/22. aboard the Aleutian Isle 9/20/22. Image credit: U.S. Coast Guard.
Above right above: Vessels and the lifted Aleutian Isle 9/21/22.
Above right below: A "thank you" poster from the citizens of San Juan County.

Among the many response agencies involved was the San Juan County Department of Emergency Management, which has made preparedness a focal point in its mission.

> *"We have done a lot of work in recent years to get equipment stationed on the island," said San Juan Office of Emergency Management Director Brendan Cowan, local on-scene coordinator, in a Coast Guard press release. "I am thankful that work paid off when we needed it the most. I want to thank everyone involved in this response for their efforts protecting the close-knit community that is the San Juans."*

On Sept. 21, the *Aleutian Isle* was placed on a salvage barge—no longer posing a threat to the environment and the unique wildlife that depends on it.

> *"It's a relief to have the vessel finally out of the water," said Washington Department of Fish and Wildlife Don Noviello, wildlife branch director in the release. "This area is special and unique. It has an incredible diversity of marine life. The whale deterrence team has spent countless hours monitoring and protecting the Southern Residents [killer whale group] and other species from any sheening."*

In celebration of a successful response, the San Juan County community shared its gratitude with a poster (above) of thanks "to all who responded." We echo those thanks, and commend our fellow responders on a job well done. It's communities like those in the spill response world that help keep our coasts clean, and we couldn't be more grateful!

Happy Thanksgiving, from the spill response team at OR&R!

ISCO thanks NOAA OR&R for the kind permission to reprint this article. You can view enlarged versions of some of the photos in the article by downloading the original file at https://blog.response.restoration.noaa.gov/giving-thanks-partnerships-make-spill-response-happen?utm_medium=email&utm_source=GovDelivery

TRAINING COURSES

USEFUL LINKS

- **INTERNATIONAL – IMO E-LEARNING PLATFORM** e-learning platform
- **AUSTRALIA – AMOSC -** https://amosc.com.au/training/
- **AUSTRALIA & NEW ZEALAND – ALGA** - https://landandgroundwater.com
- **CHINA -** http://www.sioetc.com

TRAINING COURSES (CONTINUED)

- **EUROPE –** EMSA Academy 2022. Courses Catalogue
- **FRANCE - CEDRE** - Click on these links training catalogue and 2022 calendar.
- **UK & WORLDWIDE – OIL SPILL RESPONSE LTD.** - https://www.oilspillresponse.com/training/courses/
- **UK & WORLDWIDE – BRIGGS ENVIRONMENTAL SERVICES LTD.** - https://www.briggsmarine.com/services/training/
- **UK – NCEC HAZMAT ACADEMY –** More info
- **USA – TEXAS A&M UNIVERSITY – NATIONAL SPILL CONTROL SCHOOL** https://www.tamucc.edu/research/nscs/
- **USA – MPC, DETROIT -** https://marinepollutioncontrol.com/services/training-and-compliance
- **USA – ALLIANCE OF HAZARDOUS MATERIALS PROFESSIONALS -** https://www.ahmpnet.org/events/event_list.asp

Members who would like to be listed here, please contact your editor – john.mcmurtrie@spillcontrol.org

TRAINING COURSE: CLASSIFICATION AND LABELLING OF CHEMICALS AND POISON CENTRE NOTIFICATIONS

From Chemical Watch – "Our online training course, Classification and Labelling of Chemicals and Poison Centre Notifications, will be taking place on 2 December"." More info

CERTIFICATE IN MARITIME ENVIRONMENTAL MANAGEMENT – LLOYD'S MARITIME ACADEMY

Understand environmental issues and related management matters in the maritime sector
Course commences 25th January 2023 | (VIP CODE: TT01)
Don't delay enrolment! Applications received before the 2nd December will receive a 10% reduction in fees
Click here for course content | Click here for Fee information | Click here to view course homepage
Click here to apply - £ GBP | Click here to apply - $ USD

CERTIFICATE IN MARINE POLLUTION & MANAGEMENT – LLOYD'S MARITIME ACADEMY

Online, 12 weeks, Starts 15th March 2023 Visit website for more info

UPCOMING EVENTS

TO VIEW UPCOMING EVENTS CLICK ON HTTPS://SPILLCONTROL.ORG/UPCOMING-EVENTS/

To see ALL of the posted events you will need to click on "LOAD MORE" at the foot of each opened "upcoming events" page. Event organisers are requested to notify ISCO immediately if a listed event is cancelled or postponed. Your Editor does his best to keep the listing up-to-date but it should not be assumed that listed events have not been cancelled or postponed. It is recommended that you check with event organisers before finalising your attendance plans. Please advise the Editor if any of the entries require correction or updating. If you are holding an event you would like to be featured here, please send details to John.mcmurtrie@spillcontrol.org

NEWLY ADDED TO THE UPCOMING EVENTS PAGE

- **Webinar: UK & Ireland Spill Association – Plastic Pollution Working Group, Tuesday 29th November, 1300 hrs GMT**
- **France: Oceanwise Project Final Meeting, Online, 29th November 2022, 2 pm (GMT+1)**

RECENTLY ADDED TO THE UPCOMING EVENTS PAGE

- **India: Waste to Worth Conference, New Delhi, 30th November 2022**
- **UK: Seatrade Maritime Salvage & Wreck, London, 30th November – 1st December**
- **Webinar: ExxonMobil Oil Spill Knowledge Transfer – "50 Years of Dispersants Development and (occasional) Use". 6th December, 10.00 – 1115 am, Houston time.**
- **India: World Oil Spill Conference, New Delhi, 7th - 8th December, 2022**
- **Malta: First Coordination Meeting on the Mediterranean Strategy for the Prevention of, Preparedness, and Response to Marine Pollution from Ships (2022-2031), Nov 29, 2022 to Dec 01, 2022**
- **UK: Hazmat 2023 Conference, 24-25 May 2023**

WHEN YOU OPEN THE UPCOMING EVENTS PAGE YOU WILL SEE MANY MORE UPCOMING EVENTS

MESSAGES FROM EVENT ORGANISERS

USA: CALIFORNIA - 10TH BIANNUAL OIL SPILL RESPONSE TECHNOLOGY WORKSHOP FEBRUARY/MARCH 2023

California Department of Fish and Wildlife Office of Spill Prevention and Response (OSPR) and Chevron 10th Biannual Oil Spill Response Technology Workshop February/March 2023 in California (TBD). Email or request more info: TechWorkshop2023@wildlife.ca.gov

NORWAY: NOSCA SEMINAR 2023: MARCH 20-24, 2023

MESSAGES FROM EVENT ORGANISERS (CONTINUED)

NOSCA will arrange the next NOSCA Seminar in week 12/23 (20-24.03.23) in Bodø/Norway. Our main topic will be "Tomorrow`s challenges and solutions within oil spill response". Beside of two conference days, the seminar participants will be able to observe the large scale exercise “D1H” which will be carried out by NOFO and OKEA. For more information and registration please read https://www.nosca.no/nosca-seminar/

.USA: COLORADO - CLEAN WATERWAYS 2023: 11-13 APRIL, 2023

Clean Waterway takes place at the Hilton Denver City Center Hotel in Denver, CO, on April 11-13. More News re conference & abstract submission Registration Introduction to the Planning Committee EXHIBIT SPACE AND SPONSORSHIPS ARE AVAILABLE Agenda

Full Conference Agenda Now Available for CLEAN WATERWAYS 2023 - We are excited to announce that the official conference agenda, with speakers, is now available for CLEAN WATERWAYS 2023! The conference sessions we have planned are led by experts in both industry and government and offer practical information on prevention and response challenges for oil and hazardous materials spills and other incidents specific to inland waterways. Agenda

AUSTRALIA: BRISBANE - SPILLCON 2023: 11-15 SEPTEMBER 2023

Spillcon 2023 has been confirmed for 11–15 September 2023 at the Brisbane Convention andExhibition Centre, Queensland, 417 244 355, Email spillcon@aip.com.au
The Spillcon team is delighted to announce that a number of entities have been confirmed as Sponsors of Spillcon 2023. Full details are available on our website.
Sponsors are essential for the success of Spillcon 2023 and we greatly appreciate the commitment of all these organisations. Additional sponsorship opportunities are still available. If you would like more information please contact Nicky Reading.

CONTRACTS, TENDERS AND BUSINESS OPPORTUNITIES

INTERNATIONAL OPEN TENDER NOTIFICATION SERVICE

This is a subscription service. https://www.tender247.com/keyword/oil+spill+tenders+global

OTHER OPPORTUNITIES: USA & EUROPE

US Government solicitations are frequently posted in Technology Innovation News Survey https://clu-in.org/products/tins/ US EPA Tech Direct https://clu-in.org/techdirect/archive/ and USA Federal Contracts Updates https://clu-in.org/Federal-Contract-Opportunities European Maritime Safety Agency invitations to tender are often posted in The EMSA Newsletter https://www.emsa.europa.eu/newsroom/newsletters.html

DEVELOPING AND DEMONSTRATING NANOSENSOR TECHNOLOGY TO DETECT, MONITOR, AND DEGRADE POLLUTANTS

Environmental Protection Agency, Funding Opportunity EPA-G2023-STAR-A1, 2022
EPA is seeking projects with expected results that can be practically applied in real-world settings and potentially transform environmental monitoring and management, not proof-of-concept or bench-scale projects. While this RFA solicits original nanotechnology projects, applicants should not propose a new prototype but rather a system that can be demonstrated to detect and degrade contaminants in the relevant environment. This RFA solicits applications that address both of the following research areas. Applications that only address one research area may not be rated as highly as those that address both.

- **Research Area 1:** Develop and demonstrate nanosensor technology to detect and monitor pollutants.
- **Research Area 2:** Develop and demonstrate nanosensor technology with functionalized catalysts to degrade selected contaminants

It is anticipated that a total of ~$1.5 million will be awarded under this announcement, depending on the availability of funds, quality of applications received, and other applicable considerations. The EPA anticipates funding approximately 1 award under this

RFA. Requests for amounts in excess of a total of $1,500,000 per award, including direct and indirect costs, will not be considered. The total project period requested in an application submitted for this RFA may not exceed three years. Applications must be received by 11:59 pm ET on December 7, 2022. https://www.grants.gov/web/grants/view-opportunity.html?oppId=344112

LINKS FOR DOWNLOADING AND READING OTHER PUBLICATIONS

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https://spillcontrol.org/2021/10/19/links-for-downloading-and-reading-other-publications/

LINKS FOR DOWNLOADING AND READING OTHER PUBLICATIONS (CONTINUED)

As a service to its Menbers ISCO provides a listing of publications that may be of interest to our community. This page provides details and links for downloading more than 40 publications most of which can be accessed at no cost. ISCO depends on regular receipt of updated URL links for listed publications. If these are not received, relevant entries will be discontinued.

NEW PUBLICATIONS

CEDRE NEWSLETTER FOR OCTOBER 2022

- Emergency response
- Major civil protection exercise DOMINO 2022
- MOIG regional workshop in Croatia
- ITAC Forum and IOSSC 2022
- An innovative project for ports
- Presentation of Cedre to the chemical industry
- New propulsion fuels
- A promising meeting with a French battery manufacturer
- Visit to IFPEN laboratories in Rueil-Malmaison
- IMO 2 training in the Gulf of Guinea
- Practical training for civil protection personnel
- Training course for ITOPF
- Launch of a study on the origin of litter on the shores of marine nature parks
- We need you! Online survey on floating litter in ports
- Discussions on the use of ammonia

https://wwz.cedre.fr/en/content/download/10901/file/316_E.pdf

INCIDENT REPORTS

YEMEN: HOUTHI REBELS STRIKE YEMENI OIL TERMINAL FOR THE SECOND TIME

November 21 - The Ash Shihr oil terminal is beginning to look like an unfriendly place for tankers. On Monday, the Saudi-backed Yemeni government claimed that Houthi rebels attacked the terminal while a Panama-flagged tanker was near a loading buoy. According to the Royal Navy-run monitoring center UK Maritime Trade Operations (UKMTO), a missile or rocket was used to attack a single-point mooring at the Ash Shihr (al-Shihr) oil loading terminal on Yemen's southern coast at 1512 hours local time on Monday. The name of the vessel has not been released, but it departed unharmed and no crewmembers were injured. The Maritime Executive / Read more Related report in gCaptain

SOLOMON ISLANDS: OIL SPILL SUSPECTED TO BE FROM A WORLD WAR 2 WRECKAGE DISCOVERED IN NORTH GUADALCANAL

November 24 - An oil spill suspected to be originated from a World War 2 wreckage was discovered meters outside Vura village in Northwest Guadalcanal. Villagers said the oil may have spilled after the 7.3 magnitude earthquake that hit the country on Tuesday shook a world war 2 wrecked ship under the sea

Permanent Secretary for the Ministry of Environment, Climate Change, Disaster Management and Meteorology Dr Melchoir Mataki immediately informed the Maritime Authority and the Environment and Disaster Management team to conduct a proper assessment after being informed by SIBC News. “We will work closely with both our environmental conservation team and the Solomon Island Maritime Authority (SIMA) as it is more likely a sea bed issue,” he said. SIBC Online / Read more