

## 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

### MORE PLASTIC THAN FISH? BUSINESS LEADER AND PHILANTHROPIST WENDY SCHMIDT TALKS OCEAN HEALTH AT UNIVERSITY OF TORONTO EVENT



*The Schmidt Ocean Institute, founded by Wendy and Eric Schmidt, former CEO and chair of Google, was established to accelerate ocean research and conservation through data and technology (photo by Salvatore Laporta/KONTROLAB/LightRocket via Getty Images)*

November 21 - By 2050, there could be more plastic in the world's oceans by weight than fish.

This was just one of many shocking statistics philanthropist Wendy Schmidt presented at a recent University of Toronto School of the Environment lecture titled "What We Don't Know About the Oceans Can Kill Us."

"I'm worried that growing populations are failing to understand how intimately the future of humanity is tied to the living systems around us, including the ocean," said Schmidt, the president of the Schmidt Family Foundation and co-founder of the [Schmidt Ocean Institute](#).

She added that she hoped to "offer new ways of thinking about the human impact on ocean health and to encourage public changes in behaviour."

Schmidt explained that, despite all of today's technology and exploration of other areas, such as outer space, we still know relatively little about the ocean

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## INTERNATIONAL NEWS (CONTINUED)



Photo: Wendy Schmidt delivers a lecture at a recent U of T School of the Environment event (photo by Justine Apple Photography)

What we do know is that our oceans are under attack.

"We couldn't be harming the ocean more if we tried," said Schmidt.

Oceans are being threatened on several fronts – from environmental disasters and plastic waste to the changing composition of the ocean's water, which makes it inhospitable to marine life.

Schmidt alluded to several disastrous oil spills, including "the worst oil disaster in the history of the United States that nobody knows about."

In 2004, Hurricane Ivan swept across the Gulf of Mexico, bringing with it waves over 20 metres high and 230-kilometre-per-hour winds that toppled an oil rig off the coast of Louisiana.

Six years later, scientists were monitoring the aftermath of the better-known 2010 Deepwater Horizon oil rig spill a few kilometres north and discovered that the 2004 spill was still going on relatively unchecked, with thousands of litres of oil leaking into

the ocean every day.

"Multiply this by 15 years and you have one of the worst disasters in history with no fix in sight," said Schmidt.

Schmidt offered equally alarming facts about plastics at the Nov. 13 event.

"By 2015, the world was producing 322 million metric tons of plastic every year. How much is that? Picture 900 Empire State buildings of plastic waste being produced every year."

Not surprisingly, that has led to enormous islands of floating plastic.

"You've heard about the great garbage patch in the Pacific Ocean, but there is plastic in every ocean with billions of pieces of children's toys, household goods and medical equipment. And 40 per cent of what we find is food packaging."

"I feel there's some doom and gloom about our planet, and our wasteful ways. We need to have people with money to put into research."

Schmidt is answering that call. She began her presentation by announcing a \$1 billion philanthropic commitment, on behalf of herself and husband Eric Schmidt, a former CEO and chair of Google (now Alphabet), to identify and support talent across disciplines and around the globe to help address the world's most pressing problems, including ocean health.

She concluded her talk by saying, "Think of the ocean as your life support system and think about how it connects to your life. Never forget the primal power of the ocean system, the one that keeps us all alive." University of Toronto / [Read more](#)

## EUROPEAN MARITIME DAY 2020

In parallel with the European Maritime Day (EMD) Conference in Cork (14 & 15 May 2020), a series of local EMD events, the **EMD In My Country** events will take place all over Europe for the public at large. During 2019, 145 events were organised in 23 different countries, attracting 25,000 participants, making a record in EMD history!: beach-cleaning activities, guided tours of ports, workshops, conferences, seminars and exhibitions on maritime themes, eco-tours and walks in areas with significant maritime heritage (cultural, environmental), excursions by boat, visits to maritime museums or former ships, shipyards and port facilities etc.

For 2020 the focus will be on youth activities. We especially encourage all the young ocean activists and youth organisations working for the promotion of sustainable oceans to apply.

'EMD in my Country' 2020 will take place from April to June 2020. [Read our call](#) and [submit your event](#) to be part of European Maritime Day (EMD) in My Country 2020! **Deadline for applications: 31 January 2020.** Read more at [EMD website](#).

Your editor monitors a limited number of websites for news (in English language) of interest to the international spill response community but does not have the resources to visit multiple social media platforms. If you have news you would like to share with readers of the ISCO Newsletter in over 60 countries (probably including your own country), you should send it by email to the editor [john.mcmurtrie@spillcontrol.org](mailto:john.mcmurtrie@spillcontrol.org)

## **CANADA: ENVIRONMENTAL RESPONSE STUDENT PROGRAM - SUMMER 2020**

November 22 - The Environmental Response (ER) Program operates as a part of the Canadian Coast Guard Incident Management Directorate. ER assumes command and control of all ship-source and mystery-source pollution incidents in Canadian waters.

Are you interested in a challenging and rewarding summer job? Do you want to provide key maritime services to Canadians to make our waterways safe and accessible? Depending on operational needs, you will have the opportunity to participate to:

- Gain real time experience in environmental response operations, including; responding to active pollution incidents, contributing to pollution response planning, and supporting operations;
- Receive professional training by a Canadian Coast Guard Senior Response Officer; and
- Potentially receive an opportunity to participate in an entry level developmental program for permanent employment following the successful completion of both ER work assignments and your educational program.

CLOSING DATE: January 16, 2020 Government of Canada / [Read more](#)

## **INDIA: EXERCISE HELD TO CHECK RESPONSE TO DISASTERS AT SEA**



*Officials from Spill Management Team demonstrate on emergency response plan during the two-day Area Level Pollution Exercise, organised by Coast Guard district Headquarter No 3 and other stakeholders, in mid sea, off Karnataka coast.*

November 16 - A two-day Area Level Pollution Exercise (ALPE) was conducted to evaluate the capabilities and response mechanism at sea, off Karnataka coast, on Friday. It was conducted by Coast Guard district Headquarter (No 3) in association with New Mangalore port Trust (NMPT), Mangalore Refinery and Petrochemicals Limited (MRPL) and Indian Oil Corporation Ltd (IOCL). Deccan Herald / [Read more](#)

## **MALAYSIA: JOHOR TO SET UP A RIVER POLLUTION MONITORING AND REMEDIATION COMMITTEE**

November 21 - The Johor government will set up a river pollution monitoring and remediation committee as a measure to address pollution in rivers in the state. Menteri Besar Sahrudin Jamal said the main emphasis would be on critical rivers such as Sungai Skudai and Sungai Tebrau in Johor Bahru.

"Among the initiatives to tackle the problem of river pollution is adding three water quality monitoring stations in Sungai Skudai, Sungai Ulu Sedili Besar and Sungai Johor at a cost of RM500,000 a year.

Malaysia Kini / [Read more](#)



## **NIGERIA: BODO REMEDIATION – COMMUNICATION FROM THE BMI**

November 20 - Below are links to our latest blog post for your kind information.

[Official Commissioning of the Phase 2 Bodo Cleanup Project](#) [Bodo Phase 2 Cleanup Ready to Go](#)

The cleanup is already in its second week and full updates on it will be provided in our bi-monthly reports.

The BMI also commiserates with the families and friends as well as the Bodo community on the demise of Patrick Naagbantou who will be laid to rest on Saturday, 23 November. Read full tribute: [Patrick Naagbantou: Night has dropped its dark ink on my dark palms](#) [Thanks to Bariton Lezabbey]

## SPAIN: EMSA PARTICIPATES IN POLEX 2019 POLLUTION RESPONSE EXERCISE

November 18 - On 19-20 November EMSA is participating in a pollution response exercise in Malaga, Spain which will test the national maritime contingency plan, and subsequent coordination among the local, regional, national and international organisations involved in pollution response. This will also provide an opportunity to assess their collective response capacity in the event of a large-scale oil spill in the Mediterranean.

The exercise taking place this week is organised by the Spanish Maritime Safety Agency (SASEMAR), under the Merchant Marine General Directorate, and involves the participation of several countries including Portugal, Morocco and Spain, and EMSA.

POLEX 2019 includes a large deployment of human resources and assets, and provides participants with the opportunity to test different response strategies as well as to share and exchange technical skills and knowledge on marine pollution.

The exercise scenario comprises a collision between two ships – a bulk carrier and a container ship – on 19 November when approaching the port of Malaga. Subsequently, the simulated accident will trigger Search and Rescue activities on the same day. On 20 November, the activities will include counter pollution for a spill of 510 m<sup>3</sup> of fuel oil as well as a port of refuge decision-making exercise.

EMSA is supporting POLEX 2019 with the deployment of one oil spill response vessel, the Monte Anaga, based in Algeciras (Spain), and with the provision of satellite images covering the targeted area of the pollution incident. EMSA / [Read more](#)

## TUNISIA: REGIONAL WORKSHOP ON INCIDENT MANAGEMENT SYSTEM 200



November 18 - The Regional Workshop on Incident Management System 200 was held at Paris Concorde Hotel in Tunis-Tunisia in cooperation with Oil Spill Response Limited Company (OSRL), MOIG Technical Partner.

The workshop was opened by the MOIG Chairman; Mahmoud Kamour and animated by Mohamed Samy Elmahy and Mohamed Ahmed Moustafa; Oil Spill Response specialists and trainers; from OSRL Bahrain. The two days workshop gathered 60 delegates from MOIG members, ministries, agencies and Oil&Gas industry such as: Al KHALEEJ EL ARABI, ANPE, BREGA COMPANY, CTF, EAM, ENI TUNISIA, ETAP, MEDCO ENERGI, MELLITAH OIL&GAS, MINISTRY OF NATIONAL DEFENSE, MINISTRY OF TRANSPORT, NOC, OMMP, ONPC, SAFETY DIRECTION, SEREPT, STU, SIRTE OIL COMPANY, STIR, TANKMED, TPS, TRAPSA, VIVO ENERGY TUNISIA and ZAWIA OIL REFINING COMPANY. Participants were divided in two groups; one group per day.

The workshop agenda included a presentation of OSRL and oral technical presentations hinged around 08 topics: an overview on IMS 100 and its applications, leadership and management, delegation of authority and management by objectives, functional areas and positions, briefings, organizational flexibility and unity of command, manageable span of control and transfer of command. In addition, participants afforded the opportunity to perform a tabletop exercise simulating a leak in a subsea pipeline transporting a crude oil from Saudi Arabia to Bahrain.

We were very delighted by the rewarding working atmosphere during the discussion of the Incident Action Plan (IAP) and tabletop exercise, participants from MOIG members, Oil&Gas industry, ministries and agencies worked together, shared their experiences and applied what they have learned from the training course.

A final exam including 25 questions on IMS 200 Intermediate Management System was conducted to assess the knowledge and understanding of participants.

At the end of the workshop, certificates were awarded to participants by MOIG Chairman and OSRL representatives for completion of the IMS 200 training course.

The MOIG Management Committee Members would like to thank OSRL for providing technical support to MOIG as well as Mohamed Samy Elmahy and Mohamed Ahmed Mostafa for the high quality training and expertise provided to participants, thereby contributing to the success of this event. MOIG / [Read more in the November issue of the MOIG Newsletter](#)

## USA: NAMEPA ANNUAL CONFERENCE SPOTLIGHTS INDUSTRY LEADERS



November 18 - NAMEPA's recent Annual Marine Environment Protection Annual Conference and Awards Dinner enabled the industry to not only look to the future in its examination of "Facing the Decade of Decarbonization," but also to test the temperature of industry leaders in its Leadership Roundtable and celebrate the success of many sectors of the maritime community.

The event, held aboard the Hornblower Infinity on Pier 40 in New York City, marked NAMEPA's twelfth year of educating the public on environmental stewardship while furthering the maritime industry's commitment to protecting the environment. This year's theme focused on the demands of reducing carbon emissions in maritime transportation and was attended by more than 150 marine industry professionals, conservationists, educators, journalists and students, representing the United States, Canada, Mexico, the Caribbean and beyond.

Following the conference was NAMEPA's Marine Environmental Protection Awards Dinner. The organization recognized Lois Zabrocky as an Individual, and International Seaways, Inc. as a company, who have contributed to protecting the marine environment, as well as the Port of Los Angeles for Ports; Transport Canada and the Canadian Department of Fisheries and Oceans for Governmental Agencies; the Global Maritime Forum for Non-Profit, and the United States Merchant Marine Academy for maritime education. A newly created Congressional Award was given to Representatives Don Young (R-AK) and Suzanne Bonamici (D-OR) for their work on the Save our Seas Part 2 bill. The Maritime Executive / [Read more](#)

## ISCO NEWS

### DECIDING ON THE FUTURE OF THE ISCO NEWSLETTER

The ISCO management team is currently reviewing its options in regard to continuing the publication of the ISCO Newsletter.

ISCO's funding is 100% dependent on receipts of Members' annual subscriptions. The organization is run in a very economical way and its staff are all unpaid volunteers.

Since publication of the ISCO Newsletter began in 2005 it has been a free publication but, with relentless increases in running costs, the organization needs additional funding.

We need more paying members and it has been suggested that one way to achieve this would be to limit the free delivery of the newsletter to Members only.

At this time a high proportion of our readers get the newsletter for free and do not make any contribution to ISCO funds. Some members feel that it is unfair that through their membership dues they are subsidising others who make no contribution.

The management team needs to be able to estimate how many of our non-member readers would be willing to join ISCO in order to continue receiving the newsletter for free.

Currently, the minimum cost of ISCO membership (for individuals) is only GBP 75 / USD 98 / Euro 88 per year.

You can join and pay on line –

[www.spillcontrol.org/2013-02-05-10-50-47/membership-application](http://www.spillcontrol.org/2013-02-05-10-50-47/membership-application)

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## ISCO NEWS (CONTINUED)

Your response will be a critical factor in our decision-making in regard to the future of the ISCO Newsletter.

Please respond by email to [john.mcmurtrie@spillcontrol.org](mailto:john.mcmurtrie@spillcontrol.org)

**This item, posted in last week's newsletter, is reprinted here in the expectation that more readers will respond. A number of new joining applications have already been received and it is encouraging to see that non-members want to ensure that they continue to receive the newsletter. Pending completion of the review work has not yet been started on the removal of non-members from the mailing list but non-members should respond as soon as possible. Please note that prospective new members should select the appropriate class of membership (Individual / Corporate / Industry Partner) when completing the online application form.**

## NEWS FROM ISCO MEMBERS

News from ISCO Members – Your editor welcomes news from members. Please ensure that ISCO is on your mailing list for your press releases and company newsletters. Send your news to [john.mcmurtrie@spillcontrol.org](mailto:john.mcmurtrie@spillcontrol.org)

### ALPHAMERS HAS DEVELOPED A USEFUL NEW PRODUCT

AlphaMERS has developed, tested and commercialized an unmanned craft to take a rope across a flooded water stream or take a lifebuoy to a person fallen in water. <https://www.alphamers.com>

## SCIENCE & TECHNOLOGY

### ONLY SOME BIODEGRADABLE PLASTICS ACTUALLY DECOMPOSE RAPIDLY IN THE BALTIC SEA



*Photo: The responsible scientist for UBINAM project Hermanni Kaartokallio lifting the experimental device from the sea near the University of Helsinki Tvärminne Research Station in January 2019. The device was stationed in approximately ten meters depth in free water above the seafloor. © Eeva Eronen-Rasmus/SYKE*

November 11 - The Finnish Environment Institute (SYKE) has studied how biodegradable and bio-based materials actually decompose in the Baltic Sea marine environment. The research programme comprised a set of year-long tests in the sea. Some materials decomposed almost completely within six months, while others decomposed not very much at all in the course of the entire year.

Biodegradable and bio-based plastics are increasingly being used in packaging and in disposable and consumer products. It is well known that ordinary plastics may survive in the environment for anything up to centuries and fragment into microplastics. In a marine environment, plastics may migrate long distances, accumulating on shores and in mid-ocean vortices, causing harm to marine life and to the marine environment. As biodegradable plastics become increasingly common, the risk of them ending up as marine litter also grows.

Many kinds of bioplastics - Bioplastics are a diverse material group. Biodegradable plastics are manufactured from both bio-based and non-renewable fossil raw materials. Bio-based raw materials are also used to manufacture conventional plastics, such as bio-polyethylene, which are not biodegradable. For consumers, it is difficult to perceive how various materials behave when they end up in the environment.

As of yet, there is little research data available on how commonly used biodegradable plastics decompose in marine environment, and there are no comprehensive decomposition standards against which the behaviour of materials in the environment could be measured. The offering of bio-based and biodegradable products is increasing, and their use is growing. Information on material properties is important in selecting applications for them, and this is of interest to consumers too.

Decomposition is often slower in the environment than in industrial composting - A biodegradable material exposed to the environment is decomposed by naturally occurring microbes into carbon dioxide and water. For the most part, this process has only been observed in industrial composting.

“In industrial composting, the circumstances – temperature, oxygen level, decomposer microbe communities– are optimal for decomposition. In a natural environment such as the sea, the circumstances are not as ideal, and thus decomposition is slower than in industrial composting,” says Senior Researcher Hermanni Kaartokallio from SYKE.

Kaartokallio and his research team have studied how bio-based and biodegradable film materials in common use and certain experimental materials actually decompose in the Baltic Sea marine environment. The research programme involved one year of tests in the sea and in the laboratory. SYKE was partnered in the project by three Finnish companies in the sector: Sulapac Oy, Walki Plastiroll Oy and Paptic Oy. The Ministry of the Environment of Finland provided EUR 200,000 in funding for the project. The project supports the programme of measures for the Finnish marine strategy.

Commonly used and experimental materials tested - The reference materials in the study were three commonly used bio-based biodegradable films: polylactide (PLA), polyhydroxyalkanoate (PHA) and cellulose acetate, or cellophane. The other materials studied were polyethylene film, the Bioska film manufactured by Walki Plastiroll, and Paptic and Sulapac experimental materials. The experimental materials tested were fibre–biopolymer materials and wood–biopolymer composites; their exact composition is known only to their manufacturers.

The material samples were immersed in the sea off the south-western coast of Finland for periods of six months and 12 months. Some of the materials decomposed almost completely within six months.

“The fastest to decompose were PHA, Bioska film and certain Paptic experimental materials. After six months, there was nothing left of them. Biodegradable cellulose-acetate film decomposed mostly over the course of the year, but PLA hardly decomposed at all. The polyethylene films were as good as new after one year in the sea,” says Kaartokallio.

Cellulose acetate used in the study was of biodegradable type. During the experience it lost mass by degradation and corrosion of surfaces. After a year most of the material was degraded. The picture shows new foils (upper row) and foils submerged for six (middle row) and twelve months. More pictures of different materials in the end of this press release. © Hermanni Kaartokallio/SYKE

Decomposition depends on shape as well as material - Decomposers attack a material on its surface. The rate of decomposition depends on the shape of the item, the thickness of the material and how it disintegrates into smaller pieces during the decomposition process. Thin film will decompose faster than thick film, and if the material disintegrates, allowing the ingress of water, the decomposition process is accelerated.

Actual decomposition into carbon dioxide and water was confirmed in one-month long laboratory tests. Two materials from each partner enterprise were selected for laboratory testing. The reference materials, the Bioska materials, Paptic experimental materials and one Sulapac experimental material were included in both sea and laboratory tests. In the laboratory tests, the materials were ground to a fine powder before testing. The findings were consistent with the field tests: depending on whether the materials decomposed rapidly or slowly in the sea, they decomposed rapidly or slowly, respectively, in the laboratory. The only exception to this was one of the two Sulapac experimental materials, which was only tested in the laboratory and which decomposed very rapidly. The Sulapac materials tested in the sea, sheet-like and dozens of times thicker than the other materials tested, decomposed fairly slowly, losing only up to 7% of their weight in a year.

Biodegradable products and packages should be recycled - The project only involved testing a handful of materials, and then only in one environment, viz. open water. Plastic waste also ends up in seabed sediment and on shores.

“Our findings indicate that not all bio-based biodegradable plastics decompose rapidly in a marine environment. Therefore, even if a product or package is biodegradable, it should not be disposed of in the environment; it should be recycled just like ordinary plastic,” says Kaartokallio.

Some biodegradable plastics do decompose with evident rapidity in a marine environment and have only a short-term environmental impact compared with conventional plastics. The materials that were found to decompose rapidly in the SYKE study were made of polymers naturally produced by plants or bacteria.

The EU Single-Use Plastics Directive will prohibit entire categories of products, such as disposable cutlery, plates and drinking straws, and mugs and single meal packaging made of expanded polystyrene (EPS) or styrofoam, as of July 2021. The Directive also aims to curb significantly the use of certain products such as disposable plastic mugs and single meal packaging. Under the Directive, products to replace the prohibited products may only be manufactured using unmodified naturally occurring polymers (e.g. cellulose, chitin). The Commission is currently working on guidelines. The findings of the SYKE study indicate that focus on the use of naturally occurring polymers is justified. SYKE / [Read more and see more photos](#)

### Further information:

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## WHAT IS SENSITIVITY MAPPING, AND WHY IS IT IMPORTANT?

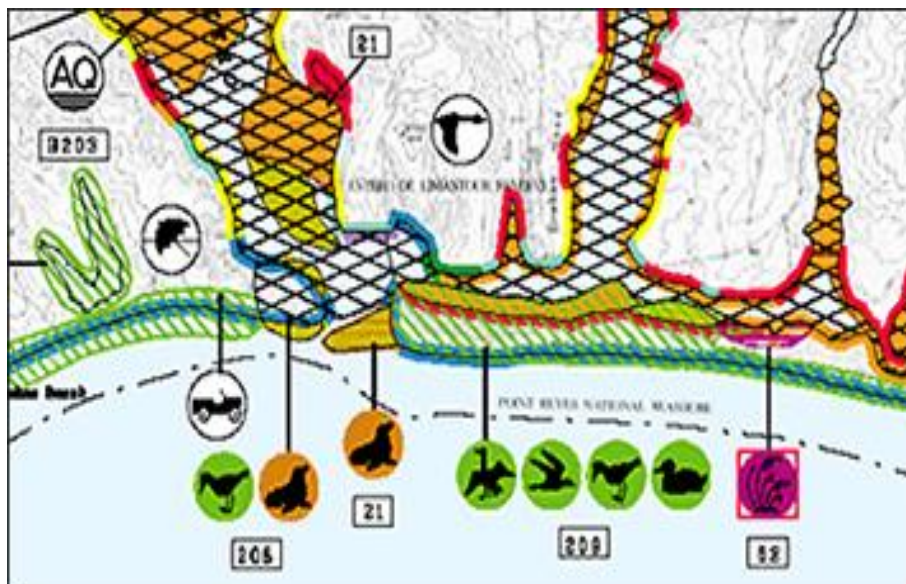
An article by Donna L. Roberts, Office of Response and Restoration. Originally published on 12<sup>th</sup> November 2019.

*This week, we're taking a closer look at what sensitivity mapping is, how it's used, and why it's so important. A snapshot of the resources in a specific area, sensitivity mapping can be a valuable tool both in and out of the spill response community.*



**Environmental Sensitivity Index (ESI)** maps and data provide concise summaries of coastal resources that could be at risk in the event of an oil spill. When a spill occurs, ESI maps can help responders meet one of the main response objectives: reducing the environmental consequences of the spill and the cleanup efforts. Additionally, ESI maps can be used by response planners — before a spill happens — to identify vulnerable locations, establish protection priorities, and identify cleanup strategies.

ESI maps have been an integral component of oil spill contingency planning and response since 1979, when the first ESI maps were prepared days in advance of the arrival of the oil slicks from the IXTOC 1 well blowout in the Gulf of Mexico. Since that time, ESI data have been compiled for **most of the U.S. coast**, including Alaska, the Great Lakes, and the U.S. territories. Today, they are **downloadable for free** in a variety of formats. Where available, you can also view ESI data or PDF maps in **ERMA®**, an online mapping tool for environmental response data, adapted to a variety of regions.

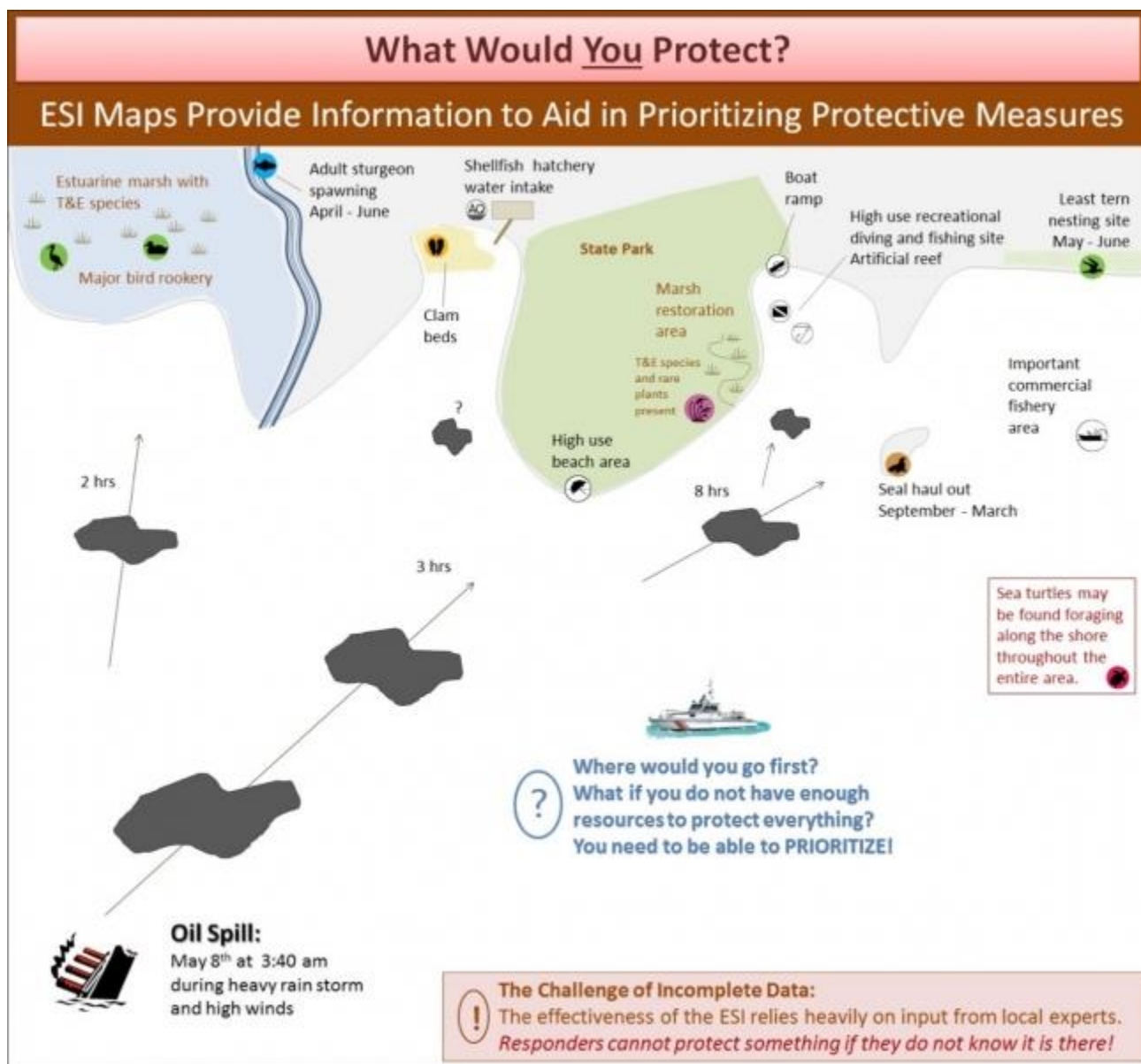


*Shorelines on ESI maps are color-coded by sensitivity to oil. Symbols mark localized areas for biological and human-use resources.*

The main elements depicted on ESI maps are shoreline types, biological resources, and human-use resources. On the maps, shorelines are ranked and color-coded according to their sensitivity to oil, the natural persistence of oil, and the expected ease of cleanup after an oil spill. The location of oil-sensitive animals and their habitats, and habitats that are themselves sensitive to spilled oil (such as coral reefs), are shown with symbols and colors. Also represented on the maps are the location of human-use resources that are vulnerable to oil spills (such as public beaches or parks), or areas that could be used as access points for oil spill cleanup.



The earliest ESI product was a collection, or atlas, of color paper maps, covering a coastal state or region. Because of reproduction costs, these had a limited distribution and were also challenging to update. Since 1989, the ESI data have been compiled using a geographic information system (GIS). The digital ESI data serve a broad audience, as they lend themselves well to targeted queries, integration with other regional data sets, and customized products. Despite this, there is still demand for the printed and PDF ESI maps, and NOAA continues to support that user community.



The spill contingency planning requirements of the Oil Pollution Act of 1990, and similar legislation passed by many states, require information on the location of sensitive resources to be used as the basis for establishing protection priorities. Standardizing the basic ESI elements speeds the development of systems and facilitates their use by national response teams and organizations, such as the U.S. Coast Guard, industry response staff, and spill cooperatives. Data sharing and updates are greatly facilitated by a uniform data structure. To facilitate a standardized approach, NOAA's Office of Response and Restoration has created [in-depth guidance for developers of ESI data](#), which assists contractors to NOAA, as well as those working independently for a state, region, country, or industry.

We would be remiss without acknowledging the significant contributions of resource experts in agencies both in and out of NOAA. ESI maps and data are created by working with colleagues in state government agencies, federal government agencies, and industry to identify and represent the comprehensive biological and human-use portions of these maps. The ESI maps and data would not be possible without the support of these [regional resource experts](#).

It's important to remember that ESI maps are important decision-support tools and a critical source of information to help responders with their decisions during an incident. The final choice will be the responsibility of the responders, who will take all relevant factors into consideration to provide the most effective spill response.

ISCO thanks NOAA OR&R for kind permission to reprint this article. Additional articles on Environmental Sensitivity Mapping will follow in coming issues of the ISCO Newsletter. <https://response.restoration.noaa.gov/>

## TRAINING

### USA: NOAA – 2020 SCIENCE OF OIL SPILLS CLASSES

This year, NOAA's Office of Response and Restoration's Emergency Response Division is offering four Science of Oil Spills (SOS) classes. Please mark your calendars and share this information with those that would be good candidates to attend.

NOAA's Science of Oil Spill training is a premier class covering a breadth of information on the Science of Oil Spills from oil chemistry to ecological trade-offs.

Target Audience: This class is designed for new and mid-level spill responders.

Cost: As always, there is no cost for attending the class, but you must cover your own travel expenses.

Student Selection: Please understand that SOS classes are not filled on a first-come, first-served basis. We try to diversify the participant composition to ensure a variety of perspectives and experiences, to enrich the class for the benefit of all participants. Classes are generally limited to 40 participants, to allow for personalized instruction.

<u>Dates</u>	<u>Location</u>	<u>Deadline for Registration</u>
Feb 10-14	Key West, Florida	Dec 13, 2019
Mar 23-27	Mobile, AL	Jan 31, 2020
June 22-26	Seattle, WA	TBD
TBD	TBD	TBD

\*\*Registration is now open for the Florida Keys SOS and the Mobile, AL SOS.\*\*

Link for APPLICATION FORM [https://response.restoration.noaa.gov/sos\\_application](https://response.restoration.noaa.gov/sos_application)

## CONTRACTS & TENDERS

### OPEN TENDER NOTIFICATION SERVICE

This is a subscription service. [Have a look to see examples of open tenders.](#)

## BUSINESS OPPORTUNITIES

### NIGERIA: SHELL PETROLEUM DEVELOPMENT COMPANY (SPDC) OF NIGERIA LIMITED – TENDER OPPORTUNITY: PROVISION OF OIL SPILL RESPONSE AND REMEDIATION SERVICES

SHELL PETROLEUM DEVELOPMENT COMPANY NIGERIA LTD hereby announces to interested and prequalified vendors an upcoming tendering opportunity for the provision of services for oil spill response and remediation activities. The proposed contract will commence in July 2020, and remain active for 24 months duration, followed by 12 months extension option based on performance within the primary contract period. [More info](#)

### USA: EMERGENCY RESPONSE BOAS TO CONTAIN/CLEAN UP/MITIGATE EFFECTS OF OIL/HAZARDOUS SPILLS IN WATERWAYS UNDER USCG JURISDICTION

Department of Homeland Security, U.S. Coast Guard, Norfolk, VA.

Contract Opportunities from Beta.Sam.gov, Solicitation 70Z08420R100001, 2019

The U.S. Coast Guard's Shore Infrastructure Logistics Center seeks to identify interested sources capable of providing emergency response services for containment, cleanup, and/or mitigation of the harmful effects of oil spills and hazardous substance incidents on or in waters encompassing the entire United States and its territories, including but not limited to Puerto Rico, Virgin Islands, Guam, Mariana Islands, and American Samoa. The Coast Guard intends to negotiate a time-and-material-type basic ordering agreement with environmental contractors selected as a result of this sources sought. Respond by 4:00 PM ET on December 9, 2019. <https://beta.sam.gov/opp/a872f1ebe45ded2ae52cc070e566b33e/view> Source: <http://www.clu-in.org/products/tins/>

## MESSAGES RECEIVED FROM EVENT ORGANISERS

**Salvage & Wreck Conference, London, 4-5 December** - We currently have 17 places left for this year's Salvage & Wreck Conference – if you are interested in attending, please register as soon as possible as all the remaining tickets are allocated on the first come, first served basis. [More info](#)

## UPCOMING EVENTS

COUNTRY	2019	TITLE OF EVENT	LOCATION
<b>For more information click on Title of Event</b>			
CANADA	Nov. 25-26	<a href="#">Hazardous Waste &amp; Environmental Response Conference</a>	Mississauga, Ontario
UK	Nov. 25 – Dec. 4	<a href="#">IMO Assembly</a>	London
GERMANY	November 29	<a href="#">South Baltic Oil Spill Conference</a>	Rostock
ITALY	December 2-5	<a href="#">Meeting of Parties to Barcelona Convention</a>	Naples
UK	December 4-5	<a href="#">Salvage &amp; Wreck Removal Conference</a>	London
UK	December 4-6	<a href="#">Global Marine Casualties Week</a>	London
UK	December 5	<a href="#">IMO Council</a>	London
UK	December 5	<a href="#">Maritime Accidents &amp; Emergencies Summit</a>	London
UAE	Dec. 8-10	<a href="#">Middle East HSE and Sustainability Week</a>	Dubai
COUNTRY	2020	TITLE OF EVENT	LOCATION
USA	March 24-25	<a href="#">SCAA Annual Meeting &amp; Conference</a>	Arlington, VA
USA	April 7-9	<a href="#">Clean Waterways Conference</a>	Indianapolis, IN
USA	May 11-14	<a href="#">International Oil Spill Conference &amp; Exhibition</a>	New Orleans, LA
CANADA	June 2-4	43rd AMOP Technical Seminar on Environmental Contamination and Response.	Edmonton, Alberta
USA	June 2-4	<a href="#">Elastec's Spring 2020 River Workshop</a>	Carni, IL
USA	June 9-11	<a href="#">Clean Pacific Conference &amp; Exhibition</a>	Seattle
COUNTRY	2021	TITLE OF EVENT	LOCATION
NETHERLANDS	March 22-26	Interspill Conference & Exhibition	Amsterdam
To request posting of an event of interest to the Spill Response Community please send details to the Editor			

## LINKS FOR DOWNLOADING & READING OTHER PUBLICATIONS

<a href="#">Alga Chronicle</a>	News from Australia on Contaminated Land Remediation	October 2019
<a href="#">AMSA Update</a>	Latest news from the Australian Maritime Safety Authority	Current issue
<a href="#">ATRAC Newsletter</a>	News from the Adriatic Training and Research Centre	June 2019
<a href="#">AUSMEPA Bulletin</a>	News from the Australian Marine Environment Protection Assoc'n	Winter 2019
<a href="#">BIMCO Bulletin</a>	Marine and shipping-related news from BIMCO	June 2019
<a href="#">Newsletter from George Holliday</a>	News and commentary on HSE issues from George Holliday	On request email
<a href="#">Cedre Newsletter</a>	News from Cedre in Brittany, France	October 2019
<a href="#">Clean Nigeria Associates Newsletter</a>	News from CNA about Oil Spill Response in Nigeria	December 2018
<a href="#">EMSA Newsletter</a>	News from the European Maritime Safety Agency	November 2019
<a href="#">GEF Newsletter</a>	Monthly Newsletter from the Global Environment Facility	October 2019
<a href="#">GESAMP</a>	Group of Experts on the Scientific Aspects of Marine Environmental Protection	Latest news
<a href="#">GISEA Quarterly Newsletter</a>	News from Global Initiative for South-East Asia	Q3 2019
<a href="#">IMO News Magazine</a>	News from the International Maritime Organization	Autumn 2019
<a href="#">IMO Publishing Newsletter</a>	New and forthcoming IMO publications	November 2019
<a href="#">ITOPF Ocean Orbit</a>	News from the International Tanker Owners Pollution Federation	October 2019
<a href="#">JOIFF "The Catalyst"</a>	Int'l Organisation for Industrial Hazard Management	Q4 2019 issue
<a href="#">Maritime Executive Magazine</a>	Often contains articles of interest to the spill response community	Jan.-Feb. 2019
<a href="#">MOIG Newsletter</a>	News from the Mediterranean Oil Industry Group	November 2019
<a href="#">Nautical Institute News</a>	News from the Nautical Institute	October, 2019
<a href="#">Navigate Response</a>	Global crisis communications network for shipping & marine	October 2019
<a href="#">NOAA OR&amp;R</a>	Weekly round-up of news from NOAA's Office of Response & Restoration	Latest issue
<a href="#">Oceanbuzz</a>	Newsletter giving news on the Ocean Technology Industry	Current issue
<a href="#">OCIMF Newsletter</a>	News from the Oil Companies International Marine Forum	September 2019
<a href="#">OHMSETT Gazette</a>	Oil Spill Response Research & Renewable Energy Test Facility Quarterly	Summer 2019
<a href="#">OSPAR Newsletter</a>	Protecting & Conserving the N.E. Atlantic and its resources	Spring 2019
<a href="#">PEMSEA Newsletter</a>	Healthy oceans, people and economies in the East Asian Seas	September, 2019
<a href="#">Pollution Online Newsletter</a>	News for pollution prevention & control professionals	Current issue
<a href="#">Safe Seas, Clean Seas</a>	Quarterly Newsletter from Maritime New Zealand	July 2018 issue
<a href="#">Salvage World</a>	Quarterly Newsletter of the International Salvage Union	Current issue
<a href="#">Sea Alarm Foundation Newsletter</a>	Oiled wildlife Preparedness and Response news from Sea Alarm	Current issue
<a href="#">Technology Innovation News Survey</a>	News from US EPA – Contaminated Site Decontamination	Oct. 1-15, 2019
<a href="#">USA EPA Tech Direct</a>	Remediation of contaminated soil and groundwater	November 1, 2019
<a href="#">WestMOPoCo</a>	Western Mediterranean Region Marine Oil & HNS Pollution Cooperation	August 2019

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

## **INDONESIA: WEST JAVA'S KARAWANG WATERS AGAIN POLLUTED BY PERTAMINA'S OIL SPILL**



November 15 - The waters off Karawang, West Java, have, again, been polluted by oil spilled from Pertamina's Offshore North West Java (ONWJ) Block after the state-run oil firm vouched plugging a leaky oil well there in September.

"We have received a report that the Karawang waters have been polluted again," Wawan Setiawan, head of the local Environment Office, stated here on Friday.

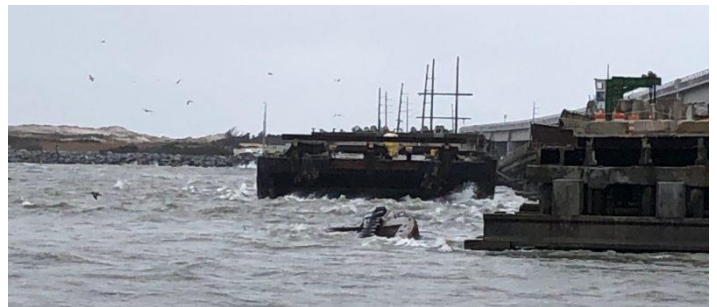
Vice President Relations of the upstream energy company Pertamina Hulu Energi (PHE) Ifki Sukarya has given confirmation on the report. "Owing to the extreme weather at sea, oil chunks collected from the platform and rig slipped out of the oil boom," he explained. The company has been prompt in taking requisite measures to clean up the oil spill, he remarked.

Antara News / [Read more](#)

## **USA: NORTH CAROLINA - CAPSIZED TUG SPILLS DIESEL IN OREGON INLET**

*Photo: The semi-submerged tugboat Miss Bonnie sits in the water after alliding with the Old Bonner Bridge, Nov. 18, 2019, in Oregon Inlet, North Carolina. U.S. Coast Guard Photo*

November 18 - The U.S. Coast Guard on Monday was called to a diesel fuel spill from a partially submerged tugboat that had allided with the Old Bonner Bridge in Oregon Inlet on Sunday. Maximum potential for the discharge is reported to be 6,000 gallons, however, it is estimated 3,000 gallons were on board the tug when it sank. gCaptain / [Read more](#)



## **USA: TEXAS - DIESEL SPILLED AFTER COLLISION NEAR PORT ARTHUR**



November 18 - The U.S. Coast Guard is investigating the circumstances behind a collision between the OSV Cherame Botruc 22 and the tug Mariya Moran last week near Port Arthur, Texas, which led to a large fuel spill.

Coast Guard Sector Houston-Galveston received a report of a collision near the entrance to Sabine Pass, Texas on Thursday morning. Coast Guard Station Sabine, Coast Guard Marine Safety Unit Port Arthur, the Texas General Land Office, Oil Spill Removal Organization, OMI Environmental Solutions and Environmental Safety and Health responded to the scene and confirmed that one of the two vessel's fuel tanks had been breached.

An estimate of 3,000 gallons of diesel fuel was released into the waterway. According to the Coast Guard, the source of the release has been secured and the spill has been contained. Boom and sorbent material have been placed around the vessel, and no injuries were reported. The Maritime Executive / [Read more](#)

## **CANADA: CRASH AND FUEL SPILL FROM TANKER CARRYING CRUDE PROMPTS B.C. MINISTRY MONITORING**

November 18 - A tanker truck burns following a crash on the Pouce Coupe River Bridge near Dawson Creek, B.C., on Saturday, Nov. 16, 2019. A tanker truck that crashed and burned over the weekend near the B.C.-Alberta boundary was carrying 40,000 litres of crude oil. The Ministry of Environment in B.C. says much of the lost crude was likely consumed in the fire on the Pouce Coupe River Bridge, although a boom has been placed across the river in an effort to catch oil from getting downstream.

About three-quarters of the 40,000 litres of crude that spilled in a fiery tanker-truck crash near the B.C.-Alberta boundary burned after the accident, and crews are now working to clean up the remainder. The Canadian Press / [Read more](#)



## **USA: NORTH DAKOTA - LAND AFFECTED BY KEYSTONE PIPELINE LEAK BIGGER THAN THOUGHT**

November 18 - An oil spill from the Keystone pipeline in eastern North Dakota has affected almost 10 times the amount of land as first reported. TC Energy reported the pipeline leaked an estimated 383,000 gallons (1.4 million litres) of oil. Suess says that estimate has not changed. Suess says cleanup continues and about 337,550 gallons (1.2 million litres) of oil has been recovered. Associated Press / [Read more](#)

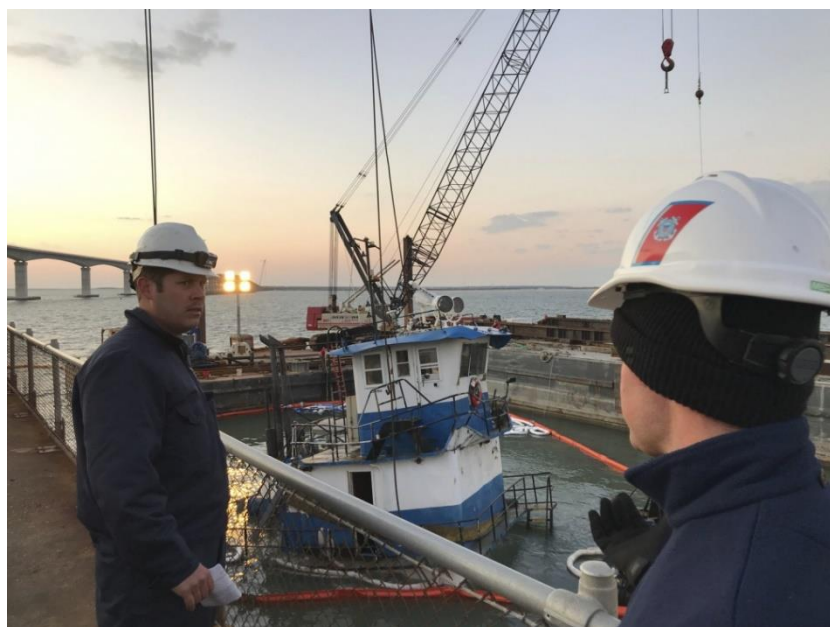
## **USA: HAZMAT CONTAINERS FROM IOWA AND NEBRASKA FLOAT DOWN THE MISSOURI RIVER BASIN**

November 18 - Hundreds of containers, many carrying hazardous materials, have floated into Missouri since flooding in the upper Missouri River basin during the spring. A Missouri Department of Natural Resources officials says the agency collected more than 740 containers this year. Many are believed to be from Nebraska and Iowa. The containers range from small buckets to 500,000-gallon tanks. Many contain diesel fuel, pesticides or ammonia. KWI / [Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

## **BRAZIL: NEARLY THREE MONTHS AFTER OIL SPILL, ORIGINS REMAIN UNCERTAIN**

November 18 - The trending theory is that the dumping was done by a "dark ship" with its location transponders intentionally turned off so as to dodge U.S. sanctions against the transport of Venezuelan oil. Mongabay / [Read more](#)

## **USA: NORTH CAROLINA – UPDATE - SALVAGE UNDER WAY FOR CAPSIZED TUG IN OUTER BANKS**



November 22 - On Thursday, salvage operations began for the semi-submerged tugboat Miss Bonnie, which went aground and partially capsized adjacent to the Old Bonner Bridge at Oregon Inlet, North Carolina.

The U.S. Coast Guard says that it has overseen the deployment of 2,500 feet of sorbent boom and 1,600 feet of containment boom around the vessel to prevent any further spillage. The maximum potential for discharge is 6,000 gallons, but the Coast Guard believes that only 3,000 gallons were onboard the Miss Bonnie at the time of the casualty.

"We're taking every precaution to ensure that the salvage process is as safe as it can be for all involved," said Lt. Chris Fisher, Supervisor for Coast Guard Detached Duty Nags Head, N.C. "We're also dedicated to making sure that any additional discharge of fuel is captured and collected before it can impact the environment."

Parbuckling and salvage operations began on Thursday (below). Currently, the approved salvage plan calls for the vessel to be dewatered and towed to a harbor of refuge where the responsible party can develop a tow plan for the wreck.

The Maritime Executive / [Read more and see more photos](#) Read a related report in [gCaptain](#)

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