



ISCO NEWSLETTER

The Newsletter of the International Spill Response Community

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International news

HUNT: US, CARIBBEAN NATIONS MUST CONTINUE COLLABORATION ON SPILL RESPONSE PLANNING



Dr Lee Hunt, IADC president emeritus and president of Lee Hunt LLC, said industry and governments must be prepared for the third dimension of oil spills – source control.

April 25 - Deepwater E&P is ramping up worldwide, and the Caribbean is following suit. Exploration plans for the region, which may be separated from the US Gulf in terms of maritime boundaries but is ultimately tied to the US through Gulf currents, requires continued regionwide cooperation to ensure a spill response plan is in place, Dr Lee Hunt, IADC president emeritus and president of Lee Hunt LLC, explained at the 2013 IADC

Environmental Conference in New York City on 9 April. He noted that International Maritime Organization (IMO) workshops, in which IADC played a central role, have improved interactions between Cuba and the US in terms of spill preparedness.

In fact, Dr Hunt said, Cuba boasts the highest preparedness level for Caribbean countries, followed by Trinidad and Tobago and then by the Bahamas. "The challenge now is to move beyond that and into the greater Caribbean," Dr Hunt said, to come together and commit to the kinds of cooperatives and consortia so

International news (continued)

that resources from the private sector are there to respond to an event that is capable of being managed and controlled by multinational jurisdictions.

Compared with response for surface spills, which are well advanced, he explained that subsea spill response presented the biggest gap. "What the industry and the governments were unprepared for and lacking was dealing with the third dimension – the need for source control," going beyond the surface to address source containment and control, he said. *Drilling Contractor* [Read more](#)

Incident reports

USA: MAYFLOWER OIL SPILL UPDATES

Arkansas Oil Spill Damage Assessment: If not the Feds, then Who?

April 25 - Federal agencies have so far not decided whether to undertake an assessment of the ecological harm caused by ExxonMobil's pipeline break, which spewed a tarry oil slick into yards, streets and creeks in a central Arkansas town.

For now, they're leaving it to state agencies to decide whether and how to quantify and counteract the environmental damage.

The rupture in the Pegasus pipeline on March 29 dumped up to an estimated 294,000 gallons of Canadian heavy crude in Mayflower, Ark.—including in [a cove that flows into Lake Conway](#), a major fishing lake. If that estimate turns out to be correct, the Arkansas spill would be one-third the size of a 2010 Michigan pipeline spill, the worst accident of its kind in U.S. history.

Inside Climate News [Read more](#)

Exxon offers to buy homes near Arkansas Oil Spill Site

April 17 - Exxon Mobil Corp. (XOM) has offered to buy the homes of residents of a Mayflower, Ark., neighborhood where a pipeline ruptured last month spilling thousands of barrels of oil.

The offer is part of a compensation package that includes a \$10,000 payment for each household to cover "disruption and inconvenience," as well as payment of cleaning and landscaping costs, moving expenses and rent.

The move is part of Exxon's response to the rupture of the Pegasus pipeline, which on March 29 spilled an estimated 5,000 barrels of oil into streets and yards of this tranquil community. Crews were still at work this week cleaning some areas and the Arkansas Department of Health said Wednesday that none of the residents of 22 evacuated homes have yet returned. *Fox Business* [Read more](#)

Mayflower still feeling effects of oil spill one month later

April 26 - This time 4 weeks ago, several emergency response crews were working together to keep oil from moving into Lake Conway after a pipeline ruptured in Mayflower.

Now, Exxon and County officials are trying to prevent any more mishaps for the city. With rain in the forecast, County Judge Allan Dodson said they are working to keep oil from spreading out of a cove where oil leaked. *THV 11* [Read more](#)

NEW ZEALAND: STEWART ISLAND SPILL RESPONSE SCALES DOWN

April 27 - Regional council Environment Southland is scaling back its response to a diesel spill off Stewart Island.

Up to 23,000 litres of the fuel was lost from the tank of fishing vessel Sureste 700, when it hit rocks as it was trying to shelter from bad weather. But an observation flight over the area this morning has found no sign of diesel, either on the shore around The Neck, off Stewart Island, or in the water.

Spokeswoman Michele Poole says the diesel has either blown further offshore or dispersed naturally in the heavy seas. *Newstalk ZB* [Read more](#)

USA: 1,450 GALLONS OF FUEL SPILLED FROM DOT YARD INTO RARITAN RIVER IN BEDMINSTER

April 20 - Almost the entire amount of fuel in a tank spilled last week from a state Department of Transportation yard in Bedminster, resulting in 1,450 gallons of oil traveling through a storm drain and into the Raritan River, according to DOT officials.

It was previously estimated that about 1,500 gallons of fuel was in the 2,000-gallon fuel tank the morning of the spill, according to a state Department of Environmental Protection spokesman. *NJ.com* [Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

Incident reports (continued)

INDIA: OIL SPILL TURNS BONANZA



Fishermen used pots, thermocol iceboxes, aluminium buckets and plastic cans to remove the oil — Photo: R. Ravindran

April 24 - It was a different catch that kept many of those residing near the Kasimedu Fishing Harbour on their toes on Tuesday morning.

These days, oil pipeline leaks seem to be perceived less as a threat and more as an opportunity in North Chennai as residents rush to collect whatever they can on hearing such news. The situation was no different on Tuesday morning when reports of a green-coloured "engine oil" gushing out spread around 4.30 a.m.

The source of the leak was the 14 inch diameter underground pipeline that is 20 years old. The incident, the third over the last eight months, happened just a few feet from the water's edge at Kasimedu. *The Hindu* [Read more](#) [Thanks to Don Johnston of ISCO Industry Partner, DG & Hazmat Group]

Other news

USA: OIL SPILL MANAGEMENT COMPANY COMING TO THEODORE, ALABAMA

April 24 - Last week marked three years since the Deepwater Horizon Oil Spill when crude poured into the gulf for 87 days.

Now there is a company in place to mitigate those type of future accidents and they're moving to Mobile County.

"Marine Well Containment Company was formed following the ma condo incident and we have dedicated equipment trained organization and plans to respond to a deepwater well control incident," said Marty Massey, CEO of the Marine Well Containment Company.

The company is a contractor for major oil rig drillers. On Tuesday they announced they will build a new facility in Theodore. Proximity is key the closer they are to an incident the faster their response. *WRKG.com* [Read more](#)

USA: EPA: TAR SANDS PIPELINES SHOULD BE HELD TO DIFFERENT STANDARDS

April 24 - Up until now, pipelines that carry tar sands oil have been treated just like pipelines that carry any other oil. But the Environmental Protection Agency now says that should change. That's because when tar sands oil spills, it can be next to impossible to clean up.

The agency made this argument in its evaluation of the State Department's environmental review of the Keystone XL pipeline project, which, if approved, would carry heavy crude from Alberta, Canada, to refineries in the United States.

The [EPA's letter](#) urges the State Department to set special standards to prevent Keystone from spilling, and make sure any spills that happen are rapidly contained.

The EPA says it has learned about the additional risks of tar sands spills from a cleanup of a [2010 tar sands spill](#) into Michigan's Kalamazoo River that has dragged out nearly three years and cost more than \$1 billion. A lot of the heavy crude sank to the bottom and hasn't biodegraded.

Despite years of cleanup efforts, so much oil remains in the river bottom that the EPA recently ordered Enbridge, the company that operates the pipeline that spilled, to start dredging again. *Npr* [Read more](#)

BOOK ON ENBRIDGE OIL SPILL WINS PULITZER PRIZE

April 17 - It's called the Dilbit Disaster: Inside the Biggest Oil Spill You've Never Heard Of," and it just won the prestigious Pulitzer Prize this week.

You say you have never heard of it? It was written by reporters at a relatively unknown environmental news site called *Inside Climate News*, and it was about the Enbridge Oil Spill in Calhoun County.

The Brooklyn-based Foundation-supported website used the oil spill as the jumping off point to introduce the nation to the troubled world of pipeline regulation and the wonders of Diluted Bitumen, Dilbit for short, the heavy Canadian Coal-tar oil that was being pumped thru the 6-b pipeline and subsequently spilled all over southern Calhoun County. *Win 98.5* [Read more](#)

CANADA: PLAINS MIDSTREAM CHARGED FOR LARGEST ALBERTA OIL SPILL IN DECADES



Crews clean up a pipeline break northeast of Peace River, Alta. on May 4, 2011. The Alberta government has charged Plains Midstream Canada for the massive oil spill that fouled land in the north-western part of the province. THE CANADIAN PRESS Photograph by: Ian Jackson , CP

April 26 - As the province announces a pipeline giant could face fines of up to \$1.5 million in connection with Alberta's largest oil spill in over three decades, it faces fresh accusations its regulation of the industry is inadequate.

The province issued a news release Friday revealing that Plains Midstream Canada ULC has been charged with three counts of violating environmental protection laws in connection with the April 2011 release of 4.5 million litres of light crude near a First Nations community in northwest Alberta.

The charges relate to the spill itself, failing to take all reasonable measures to repair the problem and not pursuing all steps possible to remediate and dispose of the oil that contaminated over three hectares of beaver ponds and muskeg in a densely-forested area. *Calgary Herald* [Read more](#)

ISCO news

GAIN PROFESSIONAL RECOGNITION AND BOOST YOUR CAREER PROSPECTS

ISCO offers Professional Recognition in a profession that traditionally has not required high academic attainment but rather intuition, experience and skills only found by being on the job rather than only from a class room. ISCO has decided to do something about it for the thousands of spill response professionals globally active who until now have not had the opportunity to show their skills and professionalism in a comparable light to lawyers, accountants and engineers.

Follow the example of others who have already won professional recognition and gained the professional qualifications – AMISCO, MISCO or FISCO.

Students, apprentices and trainees can join ISCO as student members and pursue a career development path that, as qualifications and experience are gained, can lead to eligibility for Associate Membership (AMISCO), Membership (MISCO) and, eventually, Fellowship (FISCO).

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You can learn more about Professional Membership by clicking [HERE](#) and if you visit the ISCO website at <http://www.spillcontrol.org> you can find more about the assessment criteria, code of conduct and other matters, and download an application form. Select *Membership* on the menu on the left hand side of the page, then go to *Professional*. You should also look at the page [Classes of Membership](#) Applications will be assessed by the Membership Standards Committee upon payment of a non-refundable Assessment Fee (see under [Subscriptions](#))

ISCO DELEGATIONS TO UPCOMING IMO MEETINGS

The next meeting of the IMO OPRC-HNS Technical Group (TG15) runs from Tuesday 7th May through to Friday 10th May 2013. ISCO will be represented by David Usher Hon.FISCO (President), John McMurtrie Hon.FISCO (Secretary) and Dr Douglas Cormack Hon.FISCO.

The next meeting of the IMO Marine Environment Protection Committee (MEPC 65) runs from Monday 13th May through to Friday 17th May 2013. ISCO will be represented by Dr Douglas Cormack Hon.FISCO.

At TG 15, the Agenda includes development of the International Offers of Assistance project (including the International Resource Inventory project to which ISCO has been an active contributor) and an ISCO paper on the development of improved knowledge-based contingency plans for response to marine incidents involving oil and HNS spills.



In this issue of the ISCO Newsletter we are printing No. 124 in a series of articles contributed by Dr Douglas Cormack.

Dr Douglas Cormack is an Honorary Fellow of ISCO. As the former Chief Scientist at the British Government's Marine Pollution Control Unit and head of the UK's first government agency, the Warren Spring Laboratory, Douglas is a well known and highly respected figure in the spill response community. He is the Chairman and a founder member of the [International Spill Accreditation Association](#)

CHAPTER 124: KNOWLEDGE AND COUNTER-BELIEF

Having presented the extent to which beliefs in anthropogenic species-extinction, ecological-disaster and global-warming are in conflict with knowledge of oils/HNS, ecology, oceanography and geology, it is clear that while such beliefs are overdue for rejection, any remaining beliefs ought to be suspended pending their reality-evaluation as specific hypotheses whenever/wherever believers find this possible.

Meanwhile, further to the concentration-toxicity relationship, we know that the LC₅₀ value is the lowest concentration which will cause 50% death of chosen test-organism populations; that this is laboratory-determined by raising the exposure-concentration to achieve it in a convenient standard-time; that while such testing ranks the intrinsic toxicities of substances so compared, it does not measure actual toxicity at exposure-concentrations in the real environment; that the critical body residue (CBR) approach does measure the whole-body concentrations associated with observed toxic effects at the actual exposure-concentrations needed to produce them; and that while the so-called group of experts on scientific aspects of marine pollution (GESAMP) quotes LC₅₀ values which rank the intrinsic toxicities of cargoes, it misleadingly implies that these predict actual release toxicities in the environment. Indeed, we know that UK measurement of comparative LC₅₀ values for dispersants required simultaneous exposure of test organisms to concentrations of 1000ppm of a standard oil and 50ppm of the dispersant under test while we also know that the actual concentrations in the top metre of the water column under dispersing slicks are no more than ~ 10ppm and ~ 0.5ppm respectively; that these are rapidly diluted/ degraded through the water column as a whole; and that consequently belief in species-extinction/ ecological-disaster from such exposure can be safely rejected. Indeed, we also know that simultaneous exposure arose from the dispersants themselves being too non-toxic for LC₅₀ values to be measured for them even at the above test concentration.

As to the physical coating of birds and other mobile organisms by floating or stranded pollutants, we know that the significance/insignificance of such coating for oils and their emulsions could be reality-evaluated by comparing the numbers thus dying in incidents with the numbers naturally dying and birthing annually in maintaining species populations at current levels; and that belief in species-extinction/ecological-disaster should be suspended pending such reality-evaluation. As to the physical coating of sedentary shoreline organisms, we know that the best defence is natural/induced dispersion or mechanical recovery when pollutant viscosity precludes dispersant-use; that biological/oxidative degradation of pollutants is faster as dispersed droplets in seawater than as continuous layers onshore; that stranded pollutant should thus be returned to the sea as dispersed droplets whenever/wherever physically possible; that shorelines are re-colonised as are scrubbed boat-slips by planktonic life-stages of their naturally resident species, as are weeded gardens by windborne seeds; that whichever techniques most rapidly return commercial amenity and fishing to pre-incident levels should be universally endorsed; and that belief in species-extinction/ecological-disaster from physical coating can be rejected pending reality-evaluation of relevant hypotheses, while no such extinction/disaster is possible at water column exposure concentrations.

As to the relationship between anthropogenic species-extinction, ecological-disaster and global-warming, we know that the biological carbon cycle absorbs carbon dioxide and water from the atmosphere to photosynthesise all plant matter on land and in the sea; that all animal matter depends ultimately on the plant matter as food source; that all animals respire food of plant or animal origin to carbon dioxide and water in generating energy while alive as do all heat engines while active; that all plant and animal matter undergoes bio-oxidative degradation to carbon dioxide and water when dead unless oxygen-deprivation interrupts this degradation to form natural gas, peat, petroleum and coal; that micro-organisms at the bottom of the food-chain/ecological-system degrade all accessible organic matter whether pre- or post-fossilisation to carbon dioxide and water without harm to themselves; and that combustion of fossil fuels returns to the atmosphere the carbon dioxide and water which but for the fossilisation would already have been recycling through it and the total biomasses of land and sea .

Again, we know that tectonic plate movement drives the geological carbon cycle which raises mountain ranges with abstraction of atmospheric carbon dioxide and water to form carbonate rock while its weathered sediments are river-transported to seafloors tectonically sub-ducted beneath continental margins while associated volcanic activity decomposes their carbonates thus returning carbon dioxide and water to the atmosphere; that were this geological abstraction to have no atmospheric return, it would mineralise all atmospheric carbon dioxide and terminate all plant, animal and human life; and that consequently, belief in anthropogenic global-warming can be suspended pending reality-evaluation of hypotheses as to how the rates of carbon dioxide abstraction and return within these two cycles respond separately or together to changes in its return rate by fossil fuel combustion.

1 *The Rational Trinity: Imagination, Belief and Knowledge*, D.Cormack, Bright Pen 2010 available at www.authorsonline.co.uk

2 *Response to Oil and Chemical Marine Pollution*, D. Cormack, Applied Science Publishers, 1983.

3 *Response to Marine Oil Pollution - Review and Assessment*, Douglas Cormack, Kluwer Academic Publishers, 1999.

RESPONSE TO INLAND OIL SPILLS – PART 18



A short series of articles contributed by Mark Francis of Oil Spill Solutions.

Mark Francis has been involved with the oil industry since 1975. He attended his first oil spill in 1976, the Tanker Elaine V incident. He became head of response for inland spills within the UK for British Petroleum E & P in 1980 for 10 years responding to well, storage tank and pipeline spills throughout the UK. Over the next 20 years he continued to build his international operations experience and has also specialised in spill response training, delivering IMO and other courses in more than 20 countries. Mark's website is at <http://www.oilspillsolutions.org>

Rivers (continued)

I have argued that a little damage to a river bank, which can be repaired after the operation, is better than many kilometers of oiled river banks.



The photo *left* shows the use of a trench to contain oil and be recovered by vacuum trucks.

The boom could do with being at a better angle but with the volume of oil it would be difficult to achieve.

Note: oil escaping under the apex of the boom is caught by the back up.

As over 60% of inland oil spills occur in rivers with currents in excess of 0.5 (mps), various techniques and equipment have been developed over the years some are common and others are very rare to find. Here is a small selection of some of these innovations.

Here is a type of boom *right* that seems to be difficult to find these days. It was designed to work in fast currents.

Skirts were made shorter and holes were made to allow the water to flow through the skirt reducing the water pressure and therefore reducing the likelihood of the boom being submerged.

The *photo right* is a pallet of this type of boom in a base in Baku, Azerbaijan.

If you don't have this boom available, the boom skirt can be rolled up and tied around the floatation to reduce drag and facilitate deployment. Deploy the boom so that the current faces the smooth backside of the rolled up skirt.

After deployment, cut enough of the ties loose starting at the apex to permit the boom to bow out due to increased drag on the skirt. Leave the remainder of the skirt tied. The floatation and compressed skirt are enough to deflect oil at shallow angles.



The Flow-Diverter system was tested in the 1970s and was found to be effective at diverting and converging oil at speeds up to 5mps.

In more moderate currents it can be used in place of an anchor, towboat or outrigger arm to deploy and position the outboard end of a deflection boom.

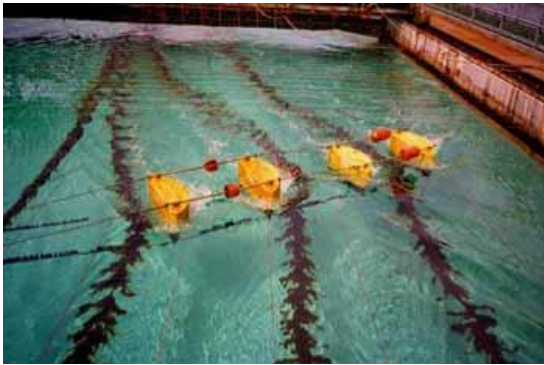


Photograph *left* is of the prototype. The diverter is a unique stable catamaran design that consists of two hulls. Each hull comprises of symmetrical foils with integral buoyancy.

The foils are pinned to a rigid connecting structure so that they can pivot but remain parallel to each other. Two or more catamarans can be connected together with cables to increase the total sweep width. Two control lines are anchored to the shore or to a boat and are used to deploy the system by adjusting the foil angle to the oncoming water.

With the control lines secured, the system is launched into the current and drives out into the a stable position balanced by the hydrodynamic lift force of the passing water and the tension in the lines.

Special feature - Inland spills (continued)

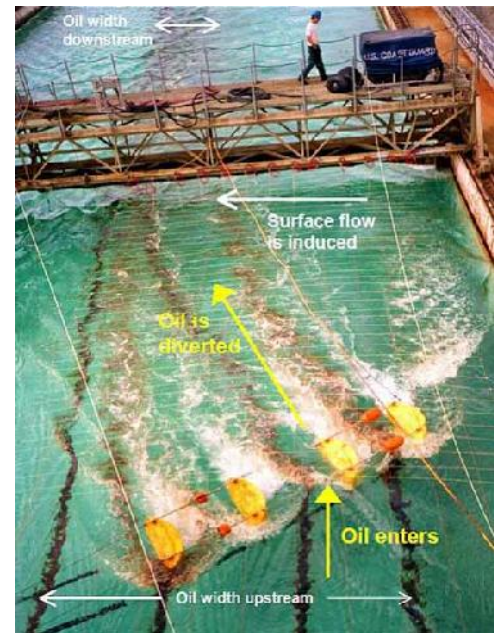


The foils create a strong transverse surface current downstream to achieve the desired diversion and consolidation effect on the floating oil. Unlike most skimmers and deflection booms, the diverters are not adversely affected as current increases. The oil is diverted by the same amount irrespective of current speed.

The photograph *left* is current at 1.5 mps and the right is at 2mps.

The USCG Research and Development Center initiated a request for the development of innovative fast-water spill response equipment. CSC Advanced Marine Center won a contract to develop and demonstrate the Oil Spill Flow Diverter™ concept.

These photographs *above* are from tests done at OHMSETT, New Jersey, USA.



To be continued

Special feature – In situ burning

IN SITU BURNING: CHAPTER 16



A short series of articles on In Situ Burning contributed by Dr Merv Fingas of Spill Science, Edmonton, Alberta, Canada T6W 1J6 fingasmerv@shaw.ca

Merv Fingas MSc PhD worked for more than 35 years in the field of oil spill technology at Environment Canada's Environmental Technology Center in Ottawa, Ontario. As head of the Emergencies Science Division at the Centre, he conducted and managed research and development projects. He is currently working independently in Alberta. Dr Fingas is the Member of ISCO Council for Canada.

Summary of the Serial

This is the 16th of a series of articles on in-situ burning of oil spills. This series will cover in-situ burning step-by-step and will present the latest in knowledge on the topic.

16. Water Quality and Effects on Land and Wildlife

Research has shown that in-situ burning of oil does not release any more oil components or combustion by-products into the water column than are present if the oil is left unburned on the water surface.¹ Water samples from under burning oil have been analyzed and no organic compounds were detected.^{1,42,43} Only low levels of hydrocarbons have been found, at concentrations that would not result in fish mortality, even in a confined body of water. No PAHs have been detected in water samples from under burning oil. Toxicity tests of the water column were also conducted and no toxicity was noted.

The burning process leaves a residue, however, that is primarily composed of oil with little removed other than some of the more volatile materials.¹ The residue contains a large amount of PAHs, although usually less than the original oil, although it may also contain a slightly higher concentration of metals. The residue consists of unburned oil, oil depleted of volatiles, re-precipitated soot, and partially burned oil. It appears to be similar to weathered oil of the same type and is typically viscous and dense. Several tests have shown that burn residue is no more aquatically toxic than other weathered oils and, in fact, is much less toxic than fresh oils of the same type. There is evidence that the metals contained in the original oil (usually 10 to 40 ppm of vanadium, chromium, and nickel) become concentrated in the burn residue.¹

The density of this residue depends on how heavy the original oil is and the completeness of the burn, although it will never be denser than the heaviest hydrocarbon found in the original oil. Figure 16 shows the residue from the second NOBE. Figure 17 shows a residue from a heavy oil burn. A very efficient burn of a heavier crude oil will produce a dense residue that may sink and pose a threat to benthic species. Sinking is very rare, however, and has been recorded in only 2 of about 200 burns worldwide.

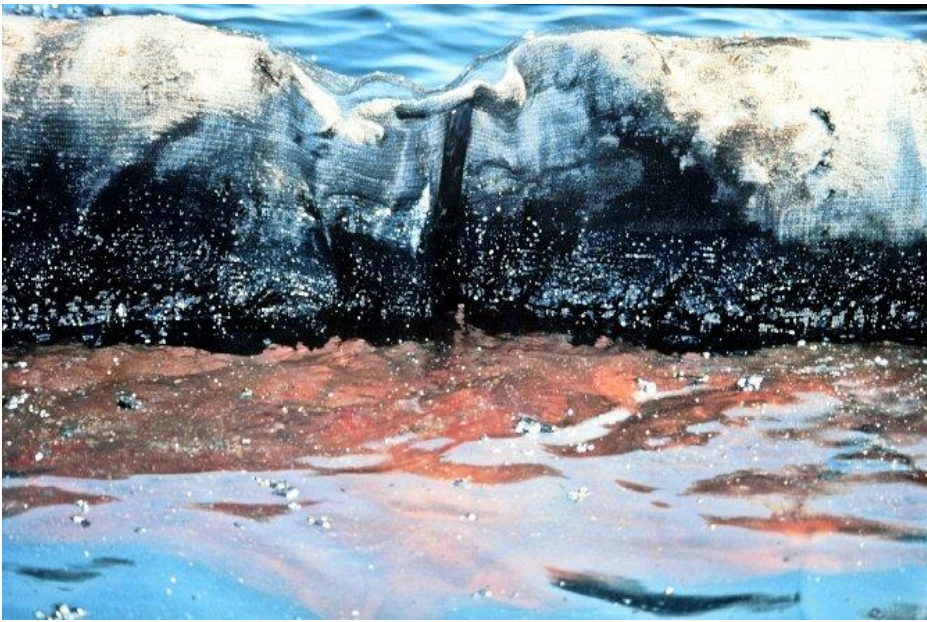


Figure 16 (left) Residue from the second NOBE burn. The residue is dense and as can be seen has a small film of water over it.

Aquatic toxicity tests performed on samples of residue have shown very low toxicity.¹ Residues can be collected in a backup boom using sorbents or a skimmer can be used to collect lighter residues.

Another concern is that burning will raise the water temperature below the oil, as extreme temperature changes can affect marine species.¹ Measurements during burn trials, however, show no significant increase in water temperature, even during some burns in shallow, confined test tanks. Thermal transfer to the water is limited by the insulating oil layer and is actually the mechanism by which the combustion of thin slicks is extinguished.

Figure 17 (right) Residue from burning a heavy oil. Note this residue is so solid that it can be removed as a sheet.

Effects on land

Where possible, every effort should be made to prevent spilled oil from reaching a shoreline, as removing oil from sand, rocks, and vegetation is difficult and costly. In-situ burning is a rapid response method that can be used effectively to protect shorelines from spilled oil.

To prevent the deposit of soot on shorelines, however, burning should be conducted at least 1 km away from the shoreline, if this is possible. If burning on land there are some precautions that should be taken, as noted later.



Effects on birds and other species

Wildlife on land is generally not affected if burning is conducted more than 1 km away from shore or sensitive areas. It has also been observed that birds will avoid the burning site and therefore are unlikely to be affected by the burn. Similarly, marine species should not be affected as the water column normally does not become contaminated and the water temperature does not change within a few centimetres below the slick. Benthic species may be affected by the sinking of heavy burn residue.

References

- 1 Fingas, M., "In-situ Burning", Chapter 23, in *Oil Spill Science and Technology*, M. Fingas, Editor, Gulf Publishing Company, NY, NY, pp. 737-903, 2011
- 42 Lemieux, P.M. C.C. Lutes and D.A. Santoianni, *Emissions of Organic Air Toxics from Open Burning: A Comprehensive Review*, *Prog. Energ. Comb.*, 1, 2004
- 43 Daykin, M.M., P.A. Kennedy, and A. Tang, *Aquatic Toxicity from In-situ Oil Burning - Newfoundland Offshore Burn Experiment (NOBE)*, *Environment Report.*, 1995

To be continued

SATELLITE-BASED MONITORING OF THE BLACK AND AZOV SEAS. 2012 RESULTS

Results of the satellite-based monitoring of oil spills and ice situation in the Black and Azov seas with the period of January-December 2012 are summed up. Over the monitoring period 92 radar images were taken. Oil spill, mostly of ship origin, were detected on 61 images (66% of the total number of imagery sessions). This is one of the highest indicators of pollution level along other Russian seas, which can be attributed to intensive ship navigation and increase in cargo turnover within Azov-Black sea water basin.

The area of some spills varied from 0.1 up to 60 sq.km. Biggest oil discharges from vessels were registered in the Black Sea on the border between Russia and Ukraine. Large ship spills were also detected within Russian (15.9 sq.km, August 16, 2012), Ukrainian (60 sq.km, July 12, 2012) and Turkish sectors (28.3 sq.km, July 30, 2012). The acreage of the biggest oil spill in the Azov Sea constituted 17.7 sq.km (as of July 2012).

Average imaging frequency decreased due to [malfunctioning of the European ENVISAT satellite in April 2012](#), which delivered most affordable radar images. However, monitoring of the eastern part of the Black and Azov seas was continued, using radar data from [RADARSAT-1](#) and [RADARSAT-2](#) satellites, as well as optical data from [UK-DMC 2](#), [SPOT 4](#) and [SPOT 5](#) satellites, which were received directly in Russia to [ScanEx RDC ground stations](#) and its partners. Similar approach was applied in the European Space Agency (ESA) as well, which to ensure a non-stop operation of the CleanSeaNet service (<http://cleanseanet.emsa.europa.eu>) bought the resources of the Canadian RADARSAT-1 and RADARSAT-2 satellites.

Monitoring method was based on three key ScanEx's technologies: ScanNet, GeoMixer and ScanDrifter. [GeoMixer](#) web-GIS technology, based on the geoinformation approach, enables to efficiently identify the detected oil spill and to analyze their nature on-line, using a unified cartographic basis, navigation maps, near-water wind and streams fields, AIS data and other data required for archived data and international centers' data analysis.

[ScanNet](#) technology, applying near-real time imagery from seven RS satellites with sensors of visible and microwave bands of medium and high resolution ([RADARSAT-1](#), [RADARSAT-2](#), [UK-DMC2](#), [SPOT 4/5](#), [EROS A/B](#), etc), is used to monitor the dynamics of large spills, their probable sources (ships) and ice formations; this technology enables, if needed, to improve the imaging resolution and frequency for monitoring small-size site and phenomena.

ScanDrifter technology enables to promptly model drifting of oil spills, other floating objects and ice fields. Specialists from the P. Shirshov Institute of Oceanology and some other organizations carry out expertise of the detection and identification results. This service customers are: FSU "Novorossiysk Sea Port Administration", National Center for Crisis Management of the EMERCOM of Russia, AARI of RosHydroMet, regional and federal institutions and companies.

Based on satellite monitoring data FSU "Novorossiysk Sea Port Administration" specialists, actively using space technology together with AIS data, identified in 2012 [a number of ships](#), responsible for illegal discharges within Russian territory and on approach ways to such. RDC ScanEx [Read the complete text of this report](#)

Publications

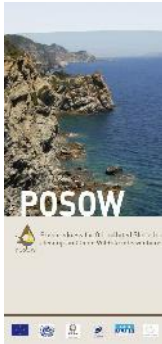
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ASME EED EHS Newsletter	News and commentary on HSE issues from George Holliday	Most recent issue
Bow Wave	Sam Ignarski's Ezine on Marine & Transport Matters	April 3 issue
Cedre Newsletter	News from Cedre in Brittany, France	March 2013 issue
The Essential Hazmat News	Alliance of Hazardous Materials Professionals	March 4 issue
USA EPA Tech Direct	Remediation of contaminated soil and groundwater	April 1 issue
Intertanko Weekly News	International news for the oil tanker community	No 17, 2013
CROIERG Enews	Canberra & Regions Oil Industry Emergency Response Group	April 2013 issue
Soil & Groundwater Product Alert	From Environmental Expert	April 1 issue
Soil & Groundwater Ezine	Articles, papers and reports	April 2013 issue
Soil & Groundwater Newsletter	From Environmental Expert	April 25 issue
Soil & Groundwater Events	Upcoming events compiled by Environmental Expert	April 2013 issue
Technology Innovation News Survey	From US EPA - Contaminated site decontamination	Feb16-28 issue
IMO Publishing News	New and forthcoming IMO publications	April 2013 issue
Pollution Online Newsletter	News for prevention & control professionals	April 24 issue
EMSA Newsletter	News from the European Maritime Safety Agency	April 2013 issue
JOIFF "The Catalyst"	Int'l Organisation for Industrial Hazard Management	April 2013 issue
Int'l Environmental Technology	Environmental Monitoring, Testing and Analysis	April 2013 issue

POSTERS AND BROCHURE DEVELOPED UNDER THE POSOW PROJECT

Eleven posters on the four themes of the project were developed by Cedre, ISPRA and Sea Alarm, with the collaboration of all the partners. The posters designed to be used in the field, summarize and illustrate key messages to be considered by response operators (professionals or volunteers) when responding to an oil spill.

The posters, complementing the manuals, will be introduced to the trainers during the Train the Trainer Courses to be held at the end of May 2013. They will then be disseminated to the regions of the beneficiary countries, as a supporting material to train volunteers at a local level.



In order to promote the POSOW project in various events and during the Train the Trainer Courses and National Pilot trainings, a brochure summarizing the objectives and outcome of the Project has been published.

The [brochure](#) and [posters](#) can be downloaded on the POSOW Website: www.posow.org

HAZMAT TOOL: TECHNICAL GUIDANCE ON LOADING, TRANSPORT AND STORAGE OF HAZARDOUS MATERIALS

HazMat Tool is a web-based tool to assist in preparing a risk assessment for loading, transporting and storing hazardous materials.

[More info](#) [Thanks to Tilo Ulbrich of Hazmat 101 Group]

THE DANGEROUS GOODS EMERGENCY ACTION CODE LIST 2013

The EAC List 2013 supersedes the 2011 list and is effective from 1 July 2013. The 2011 List should no longer be used from that date. The EAC List 2013 includes:

- The new UN numbers (3497-3506)
- Updates for the UN Numbers which were reviewed in ADR 2013
- Revised codes for infectious substances and UN Numbers not applicable to the carriage of dangerous goods under RID or ADR
- Improved recommendations for thermal hazards [Click for more info](#) [Thanks to ADR Training UK]

Events

IRELAND: ONLY ONE WEEK LEFT - ISAA OIL SPILL SEMINAR IN DUBLIN ON 9th MAY 2013



You are invited to participate in an Oil Spill Response Seminar being held at the Carlton Hotel, Dublin Airport on Thursday 9th May. Speakers include representatives from the Insurance Industry, Coastguard, Port Authorities and Local Government. Specialists in oil spill response will update delegates on techniques and a central theme of the seminar will be client expectations regarding the performance of response contractors.

For overseas visitors a shuttle bus will operate from the airport. This one day event runs from 10 am to 4.30 pm. Places are limited and it is recommended to book your place as soon as possible. The cost of attendance is £40/€50 for ISAA members/associate members and £60/€70 for non-members. The booking fee is inclusive of teas/coffees and a carvery lunch.

[Download the programme](#) [Download the booking form](#)

Events (continued)

CROATIA: ADRIASPILLCON 2013 – OPATIJA, 14-16 MAY 2013

The success of and wide international support for the first Adriatic Oil Spill Conference **ADRIASPILLCON 2010**, held in Opatija, Croatia in May 2010, encouraged us to organize the Second Adriatic Spill Conference, **ADRIASPILLCON 2013**, again in Opatija, between **14 and 16 May 2013**. Moreover, following the suggestions of the participants in the first edition of the Conference it was decided to extend the scope of **ADRIASPILLCON 2013** from exclusively oil spills related topics to subjects related to preparedness for and response to both spills of oil and spills of other hazardous and noxious substances (HNS).

The Conference is being held under the patronage of the Ministry of Maritime Affairs, Transport and Infrastructure of the Republic of Croatia, and a number of most important international, regional and national organizations active in the protection of the marine environment against accidental pollution confirmed its support for **ADRIASPILLCON 2013**. These include the International Maritime Organization (**IMO**), IMO/UNEP Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (**REMPEC**), European Maritime Safety Agency (**EMSA**), International Tanker Owners Pollution Federation Ltd. (**ITOPF**), International Spill Control Organization (**ISCO**) and Centre de documentation, de recherche et d'expérimentations sur les pollutions accidentelles des eaux (**CEDRE**). [Download more information and link for registration](#)

CHINA: OIL SPILL RESPONSE WORKSHOP – BEIJING, 26-27 JUNE 2013

Topco is re-launching Oil Spill Response Workshop (OSRW) in 2013 by showcasing the latest and best technologies and solutions for oil spill through five dedicated sessions. The OSRW 2013 is designed to be Asia's top networking, knowledge-sharing and sourcing event of choice for oil spill prevention and clearing professionals and companies.

The event, the third of its kind, features discussions on technical innovations and best practices across spill prevention, preparedness, response and restoration. It will provide an optimum mix of networking opportunities for industry shareholders and will bring to the audience the most update technology and cost-efficient solutions to contain oil spill. The audiences will be interactive in their discussions so as to drive home the smart resolution to oil spill beyond its causes. [Download more info](#)

NOSCA SEMINAR ON OIL SPILL TECHNOLOGY, LOFOTEN, NORWAY – 9-13 SEPTEMBER 2013

This year's seminar will have focus on *Oil Spill in Remote Areas and Vulnerable areas*. With continues oil exploration in new and remote areas, new challenges has been surfacing with higher traffic in these regions. How do we handle the higher drilling/ship activities related to conflict of interest, legislations, vulnerable environment and what tools should we use to clean up spill.

The Programme has been released - [Download the preliminary programme and registration form](#)

UAE, DUBAI: NOMINATIONS FOR OFFSHORE ARABIA 2014 – ENVIRONMENTAL AWARDS - NOW OPEN

Environmental Awards recognises outstanding Environmental Leaders, whether Individuals or Organisations, that have exemplified Inspiration, Vision, Innovation, Leadership and Action for the Environment.

The 'Environmental Awards' is an opportunity to acknowledge companies that have contributed towards the Protection, Safety and Betterment of the Environment. These awards have received acclaim on both Regional and International levels.

The Environmental Awards ceremony will take place on 4th March, 2014 at the Gala Dinner that will host regional and international VIP's, Dignitaries and prominent Leaders of the Industry. This will be a memorable event, celebrating the importance of working towards the Environmental goals committed to by the Industry. [Send your nominations](#)

Products and services

POCKET CHEMDATA® FOR ANDROID™

Pocket Chemdata app for Android! Incorporating the **full** Chemdata database, the app is designed to run on Android smartphones and tablet devices, and is available for download from the Google Play apps store.

Developed to provide emergency services and private organisations handling chemicals access to timely, accurate chemical information at the scene of an emergency, cutting crucial response time. In an emergency, rapid access to relevant and easy-to-understand chemical information is critical for making the right decisions. Pocket Chemdata is the invaluable resource that can help you save lives and exercise damage control.

The app provides you with a free 14 day trial of the full version. After the trial period has expired you can purchase a Pocket Chemdata licence subscription directly from NCEC to obtain an authorisation key to unlock the app for continued use. [More info](#)

EXPLOSION PROOF LOW VOLTAGE LIGHT CART WITH TRANSFORMER



The Magnalight EPLC-112 Four Drop Light GFI Cart provides a mobile lighting solution for applications requiring multiple explosion proof light sources that can be easily managed in the workspace.

This mobile light cart from Magnalight is designed to provide operators in hazardous locations with four mobile drop lights operating on 24 volt DC current and comes complete with 50 feet of SOOW explosion proof cord and 5-15 plug. Constructed of aluminum, this cart is mounted on no-flat rubber tires and contains a 500 watt step down transformer that converts 120 VAC current to 12 Volts DC. Included with this cart are four 12 volt explosion proof hand lamps (100 watt Class 1 Division 1 and 75 watt Class 2 Division 1). Each lamp has its own switch and is connected to the cart with 50 feet of SOOW cord. [More info](#)

Safety briefing

EXPLOSION IN AN INDUSTRIAL VACUUM TRUCK

What Happened?

An industrial vacuum truck was vacuuming out a sump in a reagent area of a mineral processing plant when the vacuum pump motor caught fire. The fire then ignited gases in the interceptor (the large receiving tank on back of truck) that had built up to explosive levels. Material was ejected up to 30 m away.

How did it Happen?

Investigation showed that the fire was started by a wire leading from the battery to the vacuum pump starter motor. The wire was not protected by a fuse and overheated, igniting the wire's insulation. The resulting fire then ignited gas that had built up in the interceptor. The gas came from the sludge material that was being cleared up by the truck. The sludge included residue and material from the sodium ethyl xanthate tank in the storage bund. This material is itself spontaneously combustible, but it can also produce combustible and explosive carbon disulphide gas and ethanol vapors. Additionally, the vacuum truck was not fitted with any fire suppression other than a hand-held extinguisher.

Recommendations

1. Identify any sumps that may contain hydrocarbons or other flammable materials before clean up work starts and discuss this information with the workers undertaking the task. This information must be input to the risk assessment process used for this type of task at your mine.
2. Ensure that suitable electrical protection techniques are used with such diesel pump and motor installations.
3. Check similar types of equipment and assess whether additional controls, including an appropriate fire suppression system, are needed.

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

Company news

ISCO CORPORATE MEMBER, CHATOYER ENVIRONMENTAL IS RELOCATING

Chatoyer Environmental is moving from 1/4 Bonz Place, Seven Hills NSW 2147 to 351 Wentworth Avenue, Pendle Hill NSW 2145. During this time, we can still be contacted on 1300 880 623 or via fax 1300 880 624, emails will stay the same.

The office will be closed from Wednesday 24th April 2013 at 5pm and will resume normal working hours on Tuesday 30th April 2013.

ISCO CORPORATE MEMBER, DESMI WIN PUMPING SYSTEM PACKAGES FOR NEW UK ROYAL FLEET AUXILIARY REPLENISHMENT TANKERS

Several years of good co-operation with Daewoo Shipbuilding and Marine Engineering (DSME) and the Royal Navy have formed the basis of the process of getting the two-digit US\$ million contract for pump system packages for the new UK Royal Fleet Auxiliary Replenishment Tankers. *The Maritime Executive* [Read more](#)

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