



**IOSC 2024**

# 2024 IOSC PROGRAM GUIDE

*As of 4/30/24. Latest program will be available in the IOSC Conference app.*

# **Date: Sunday, May 12, 2024**

Time: 09:00-17:00

Session: Registration

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# **Date: Monday, May 13, 2024**

Time: 07:00-18:30

Session: Registration

**Time: 08:00-12:00**

## **Session: Aerial Surveillance of Oil Spills - an introduction**

Session Type: Short Course

**Room: 278-280**

Instructor: Adam Davis, NOAA; Miguel Patel, ITOPF

Description: Aerial surveillance is an essential element of an effective response to most oil spills, for assessing the location and extent of oil contamination and verifying predictions of the movement and fate of oil slicks at sea. Observation from the air can provide information to maximize the deployment and control of spill response operations at sea, the strategic and timely protection of sites along threatened coastlines and the management of resources for shoreline clean-up. This half-day, four-hour, short course provides an introduction to planning and conducting an effective aerial surveillance strategy. Guidance is provided on preparing and performing aerial observation missions for each of the three main types of platforms available: manned and unmanned aircraft, and satellites. The presenters of this course from NOAA and ITOPF, together have experience of observing spills of oil on the sea surface over many decades globally, including during the response to many well-known incidents, as passengers in fixed and rotary wing aircraft, as ground observers using unmanned aerial vehicles and by commissioning and interpreting images from a variety of satellites. The knowledge, experience and skills gained from this extensive practical involvement in observing oil will allow course attendees to understand the importance of this tool to maximize the effectiveness and efficiency of an oil spill response.

## **Session: Basic Oil Spill Forecasting and Modeling**

Session Type: Short Course

**Room: 275-277**

Instructor: Dr. Chris Barker, NOAA; Dr. Amy MacFadyen, NOAA; Matt Horn, RPS | North America; Dr. Deborah French McCay, RPS | North America

Description: This course will introduce the fundamentals of oil spill transport, fate, and effects analyses using computer modeling. Applications include forecasting for spill response, hindcasting, response planning, and risk assessment in marine and inland waters. The session will introduce the basics of oil spill science as it pertains to modeling. It will then provide an overview of modeling use cases, with examples using oil spill models from RPS (previously ASA) and NOAA. We will highlight differences in approach between offshore versus terrestrial modeling, as well as the inclusion of response activities, use in response, drills, spill response planning, environmental risk assessment, and injury (natural resource damage) assessment.

## **Session: Oil Spill Response in River Environments: An All-Season Approach**

Session Type: Short Course

**Room: 286-287**

**Time: 08:00-17:00**

**Session: Fundamentals of Oil Spill Response**

Session Type: Short Course

**Room: 288-290**

Instructor: Dr. Amy Jewell, Dr. Angela Pinzón, Andrew Le Masurier, Dr. Sue Ware

Description: This eight-hour full-day course provides an introduction to the various components of an oil spill response. Through an interactive all-day tabletop exercise interspersed with a series of technical presentations, attendees will learn about the chemical and physical properties of oil, the effects of oil on environmental and economic resources, and techniques for responding to spills of oil at-sea and on the shoreline. Attendees will also gain an insight into the process for recovering costs following an oil spill. The course will be highly interactive, with attendees taking part in several exercises throughout the day to assist with understanding the topics presented, including an augmented reality (AR) experience to visualize and plan shoreline clean-up operations. This course will be taught in accord with the International Maritime Organization's model course content.

**Session: SCAT - Shoreline Clean-Up Assessment Technique**

Session Type: Short Course

**Room: 291-292**

Instructors: Drs. Rob Holland, OSRL, Ed Owens, OCC, & Elliott Taylor, Polaris Applied Sciences, Inc.

Description: A shoreline response usually presents the greatest challenge in terms of management and can potentially be the most expensive part of an oil spill response. As soon as the oil hits the shoreline, the amount of time, effort and resources increases. Shoreline Clean-up Assessment Technique (SCAT) is a well-established systematic approach which is used to document the status of oiled shorelines and their subsequent treatment recommendations (i.e. clean-up methods). This 1-day course will look at the fundamentals needed to implement and be part of a SCAT program, from looking at the character and dynamics of coastal zones and how oil behaves on different shoreline types to managing a shoreline assessment program and developing the most appropriate endpoints. The course will be carried out in the classroom and will provide you with first-hand experience in assessing a shoreline and develop an understanding of the dynamics that control oil behavior and the physical environmental factors that determine clean-up options.

**Time: 12:00-13:00**

**Session: Short Course Attendee Lunch (Available for Full Day Short Course Attendees)**

**Time: 13:00-17:00**

**Session: Hands On: NOAA Tools for Basic Oil Spill Forecasting and Modeling**

Session Type: Short Course

**Room: 286-287**

Instructors: Dr. Christopher Barker, NOAA Office of Response and Restoration, Dylan Righi, NOAA Office of Response and Restoration, Dalina Thrift-Viveros, NOAA Office of Response and Restoration, & Dr. Amy MacFadyen, NOAA Office of Response and Restoration

Prerequisites: It is assumed that students will have a basic understanding of the physics and chemistry of oil spill behavior and the applications of modeling, such as what is covered in the IOOSC 2024 Short Course: "Basic Oil Spill Forecasting and Modeling".

**A laptop computer with WiFi will be required to participate in the hands-on exercises.**

Description: This course will cover the practicalities of oil spill fate and transport computer modeling. Participants will get hands-on experience using the NOAA GNOME Suite for Oil Spill Modeling for predicting oil spill fate and transport. The following topics will be covered: - Oil weathering analysis - Oil trajectory modeling - Model parameters that can be adjusted, and

what the implications are - Interpreting the results - How to select an appropriate oil record from the database - Accessing maps - Accessing oceanographic and meteorological data from nowcast/forecast models - File formats for input data - File formats for disseminating model results - Handling uncertainty. Although the emphasis of the course will be on the use of the NOAA tools for drills and planning, the fundamental understanding acquired will be applicable to other models and other use-cases.

## **Session: Readiness Evaluation Tool for Oil Spills (RETOS): Assessing Response Planning and Preparedness**

Session Type: Short Course

**Room: 275-277**

Instructors: Dr. Elliott Taylor, Polaris Applied Sciences, Inc., Miguel Moyano, ARPEL, Dario Miranda, Independent Consultant

Description: This course will assist participants in the development of skills to implement the use of the RETOSTM tool, its Manual, and the 2023 IMO-IPECA International Guide for the Assessment of Oil Spill Response Planning and Preparedness in the evaluation of OSR planning and readiness and to identify gaps, information needs, and sources for improvement.

The Readiness Evaluation Tool for Oil Spills (RETOSTM), its Manual, and the 2023 International Guide were updated during 2022-2023 to provide the response community with up-to-date tools and references for oil spill response planning and preparedness program assessments and continued improvements. These tools were developed with the support of regional and international experts from the industry and government to assist governments and companies in assessing their level of oil spill response planning and readiness management in relation to commonly agreed pre-established criteria considering international Best Management Practices.

RETOSTM is a unique management tool utilized worldwide by governments and oil industry and transportation managers in more than 80 countries to assess gaps in their oil spill response programs-at different levels. The tools provide guidance on opportunities to improve preparedness and resources to bridge the identified gaps. The free, online application offers users assessment tools for a range of oil spill response scopes, including National, Port, Facility, and Operations (i.e., Pipeline, vessel fleets, etc.).

The course will be useful to officials, leaders, coordinators, and managers responsible for the strategy, sustained development, and improvements of oil spill preparedness and response plans and programs, from companies and governments alike.

**Time: 17:00-19:00**

**Session: Exhibit Hall Opening & Welcome Reception**

**Room: Exhibit Hall G**

**Time: 17:00-18:00**

**Session: Meet the Poster Authors**

Session Chair: Matt Richards (US Coast Guard, CG-MER)

Session Type: Poster

**Room: Exhibit Hall G**

Posters:

- **Development of an efficient and environmentally friendly oil spill dispersant and optimization of application conditions based on wave groove**  
Authors: Liang Wu, Yu Zhao, Dongzhao Yang, Qingyu Wang
- **Use of CRONOS platform to support environmental response**  
Authors: Carlos Leandro da Silva Junior, Fernando Tulio Camilo Barreto
- **Integrating Environmental Justice into Emergency Response Preparedness and Management**  
Authors: Victoria Robinson, William Nichols

- **Overland oil spill batch modeling of multiple leaks from pipelines considering heat transfer for high viscosity and high pour point oils**  
Authors: Reinaldo Garcia
- **Conversion of a Conventional Workboat into an Unmanned Craft for Offshore Oil Spill Containment and Recovery Operations**  
Authors: Leonardo Maciel, Caio Swan de Freitas
- **Assessing Dissolved and Particulate Oil in Water Accommodated Fractions and their Impacts on Oil Toxicity**  
Authors: Devi Sundaravadivelu, Matthew Alloy, Mace Barron, Robyn Conmy, Kiara Lech
- **Artificial Intelligence (AI) for Oil Spill Preparedness**  
Authors: Bjarte Groedem
- **NOAA SAB and SAR-Based Oil Thickness Reporting**  
Authors: Juan Velasco, Bryna Mills
- **Aquatic Fate and Effects of Herders**  
Authors: Kelly Marie McFarlin, Thomas Parkerton
- **Developing a self-repair distribution for use in modeling loss of propulsion events**  
Authors: JD Ross Leahy, Vasile-Alexandru Suchar, Alex Hess, Adam Byrd, James Murphy
- **Design of Oil Spill Incident Early Warning System Based on Internet of Things**  
Authors: Ganjar Pradana, Suzanna Siregar
- **Plans, Equipment, and Training: 15 years of Achievement Massachusetts Geographic Response Strategy Development, Testing and First Responder Training Program**  
Authors: Michael Popovich, Julie Hutcheson, John Duponte, Sam Butler
- **A New Era of Wildlife Hazing & Deterrence: What Do We Know and How Do We Improve?**  
Authors: Kyra Mills, Viviane Barquete
- **The Importance of Pre-Planning in Incident Response: Techniques, Tools, and Technology**  
Authors: Josh Gravenmier, Maria Hartley
- **Prevention, Preparedness, and Response Policy; A Case of the Albertine Graben Uganda**  
Authors: Christine Ainabyona
- **Assessment of Dielectric Fluid Chemical and Physical Properties that Impact Spill Modelling**  
Authors: Jessy George, Emma Lynch-Galvin, David McCullough, Justin Wang, Riley Stark, Margarita Hillon, Kira Howard, Sophia White, Glenn Frysinger, Gregory Hall
- **Advantages to Industry of Comprehensive Tier 3 Oiled Wildlife Preparedness and Assessment: The Global Oiled Wildlife Response Service**  
Authors: Adam Grogan
- **Techniques for Detection of Relative Oil Thickness using Spaceborne SAR**  
Authors: Gordon Staples
- **Human Use and Oil Spills: The Transition to Mobility Data**  
Authors: Andrew Bechard, Michael Rockel, Mark Rockel
- **How Clean is Clean When Considering Background Oiling?**  
Authors: Elliott Taylor, Edward Owens, Greg Challenger, Andrew Graham
- **The Effects of Chemical Dispersant on Common Murre (Uria aalge) Behavior and Waterproofing**  
Authors: Becky Elias, Kyra Mills, Danielle Harvey, Emily Whitmer, Michael Ziccardi
- **Modified SCAT Procedures Developed for Oil Contaminated Mangrove Habitats in the Niger Delta**  
Authors: Nicholas Story, Peter Lenu, Erich Gundlach, Ogonnaya Iroakasi, Vincent Nwabueze, Kabari Visigah
- **Utilization of a UAS-Lidar system for oil spill response in arctic regions**  
Authors: Oscar Oscar Garcia, Damien Josset, Jay Cho
- **Assessing the Toxicity of Mixtures of Surface Washing Agents and Oil to Marine and Freshwater Species**  
Authors: Matt Alloy, Devi Sundaravadivelu, Mace Barron, Robyn Conmy, Kiara Lech
- **Next steps for Common Operating Pictures based on recent experiences in Brazil**  
Authors: Joao Serra, Leonardo Maciel
- **Weathering of a Heavy Fuel Oil Released from a Historical Wreck in British Columbia, Canada**

Authors: Brian Robinson, Thomas King, Jennifer Mason, Melissa Faulkner, Stanley Poon, Alice Ortmann

- **How Increased Digital Adaptability Can Enhance Spill Response Efficiency**

Authors: Naa Sackeyfio, Jamie Stovin-Bradford

- **Endangered Species and Response Actions Dashboard**

Authors: Deanna Bergondo

- **Saturate, Aromatic, Resin and Asphaltene (SARA) Analysis of Floating Oil Exposed to UV Light**

Authors: Emily Pisarski, Olivia Hernandez, Edward Wirth

- **Simulation of Oil Drift Patterns from Hypothetical Release to Real Release Conditions Utilizing the Field Information and SAR Datasets**

Authors: Prasad Seliamedu Jayaramachandran, TM Balakrishnan Nair, Sudheer Joseph

- **Mycoremediation of Louisiana Sweet Crude Oil with *Pleurotus ostreatus***

Authors: Summer Crescent, Emily Pisarski, Ed Wirth, Richard Long

- **Assessment, Preparedness, Training, and Implementation of a Shoreline Response Plan Involving Traditional/ Subsistence Fishing Communities in Northeast Coast of Brazil - A Case Study**

Authors: Pedro Martins, Marcelo Cortes, Henrique Margem, Joao Serra, Mauricio Green, Pedro Habibe, Jorge Elias, Bernardo Assis

- **Oil in ice modeling and risk analysis in the Great Lakes**

Authors: Yang Song, Ayumi Fujisaki-Manome, Christopher H. Barker, Amy MacFadyen, Nancy E. Kinner, James Kessler, Dan Titze, Matthew M. Alloy

- **Implementation of an Equipment Cache Grant Program to Build Preparedness and Response Capacity in Washington State**

Authors: Laura Hayes

- **Lessons Learned from Large-Scale Mangrove Restoration Planting following Remediation in the Eastern Niger Delta, Nigeria**

Authors: Izuchukwu Callistus Uche, Erich Gundlach

- **Experiments of oil jets in churn flow without and with dispersant: Measurements of hydrodynamics and the oil droplet size distribution**

Authors: Ruixue Liu, Subhamoy Gupta, Cosan Daskiran, Diego Muriel, Joseph Katz, Michel Boufadel

- **Incident Management utilizing MSTeams**

Authors: Diane Dunham

- **Environmental Protection - Mechanical recovery**

Authors: Kare-Ludwig Jorgensen

- **Impacts of a Surface Washing Agent and Chemical Herder on the Aerobic Biodegradation of Crude Oil**

Authors: Kiara Lech, Robyn Conmy, Robert Grosser, Devi Sundaravadivelu, Leah Trutschel

- **How the API standardization program supports safe practices and incident response for the offshore natural gas and oil industry**

Authors: Ivan Pinto, Paula Watkins, David Miller

- **Oil Spill Detection and Measurement Sensor Testbed Using UV Fluorescence**

Authors: Christopher Roussi, Benjamin Hart

- **Perspectives on Establishing and Maintaining China's Bulk Hazardous and Noxious Liquid Substances Emergency Response Capabilities on Ships**

Authors: Wei Cao, Rui Zhang

- **The Evaporation of Crude Oils and Petroleum Products**

Authors: Merv Fingas

- **Analyzing Washington State's Oil Transfer Pre-Booming Trends**

Authors: Sara Thompson, Sean Kuschel

- **Enhancing Area Committee Participation: Modernizing Area Committees for Better Internal and External Communications**

Authors: Jereme Altendorf, Mary Goolie, Victoria Colles, Matthew Richards

- **Exploring the Performance and Mechanisms of Green Nanomaterials-based Fluids for Shoreline Oil Spill Response**

Authors: Rengyu Yue, Chunjiang An, Zhibin Ye, Lei Liu

- **Challenges of Scientifically Robust Post Spill Monitoring to Inform Each Stage of the Environmental Assessment Process**  
Authors: Sue Ware
- **Virtual Future of the Incident Management Team lessons learned from the 2021 California Pipeline case about remote capabilities**  
Authors: Aidan Leddy-Phillips
- **Sponsoring Incident Management Team Workshops to Maintain Incident Command System Proficiency**  
Authors: Brittani Koroknay
- **Mapping logistical and other key support resources for a coastal response**  
Authors: Steve Catalano, Alisha Chartier, Sierra Fletcher, Haley Griffin
- **Environmental Remediation Methodologies, Techniques and Best Practices for Land-Based Wind Tower Generation Installations**  
Authors: William Hazel, Tim McNulty
- **Simultaneous Desorption of Polycyclic Aromatic Hydrocarbons and Heavy Metals from Contaminated Soils by Rhamnolipid Biosurfactants**  
Authors: Liang Wu, Yong Wang, Yang Liu, Kexin Wu
- **Simulating oil spill response operations with the OSCAR response model**  
Authors: Oda Omholt, Andreas Steinvik, Emma Litzler, Maxime Leclair, Per Johan Brandvik, Jorgen Skancke
- **Investigations on Breaking Dynamics of Oil Mineral Aggregates in Free Vortex Flow**  
Authors: Akshaya Thakku Rajan, Ethayaraja Mani, Murali Kantharaj
- **Hydrocarbon degradation capability of the microbial community inhabiting Canadian high Arctic beach sediments**  
Authors: Esteban Gongora, Ianina Altshuler, Madison Ellis, Mira Okshevsky, Charles Greer, Lyle Whyte
- **Two Practical Clean-Up Applications of Oil Sequestering Magnetic Particles**  
Authors: John Orbell
- **MERRAC's Activities to Facilitate Regional Cooperation on Marine Pollution Preparedness and Response in the NOWPAP Region**  
Authors: Seong-Gil Kang, Haemin Won, Siyeon Lee, Seong-Yeob Lee
- **Trajectory Ensembling of Oil Drift Patterns to Manage Uncertainty in Spill Release**  
Authors: Prasad Seliamedu Jayaramachandran, TM Balakrishnan Nair, Sudheer Joseph
- **Emerging issue of plastic pellet spills throughout the supply chain: Development of innovative technologies for prevention, remediation and response by Hoola One Technologies**  
Authors: Jean-David Lantagne, Charles Delisle, Alexandre Dumont, David Rancourt
- **Non-Floating Oil Risk Mapping in Washington State Geographic Response Plans**  
Authors: Wendy Buffett
- **Testing the effectiveness of EEM-PARAFAC analysis to monitor surface spills of diluted bitumen and diesel fuels**  
Authors: Alice Ortmann, Stanley (Ho Yin) Poon
- **Using a Mobile Data Collection Application to Update Geographic Response Strategies in Alaska**  
Authors: Jennifer Horsman, Bryan Thom, Mark White, Jereme Altendorf, Matthew Richards

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**Date: Tuesday, May 14, 2024**

**Time: 7:00-17:00**

**Session: Registration**

**Time: 7:00-8:00**

**Session: Scholarship and Emerging Leaders Breakfast (By Invitation Only)**

Emerging Leaders Sponsored by Shell Emergency Management

**Room: 297**

**Time: 8:00-17:00**

**Session: Film Festival & Photo Gallery**

**Room: 274**

**Time: 9:00-11:00**

**Opening Plenary Session**

Session Type: Plenary

**Room: New Orleans Theater**

- **Opening Remarks**  
Victoria Broje, IOSC Chair
- **Film and Photo Contest Awards Presentation**  
Mark Howard, EPA
- **Remarks**  
ADM Poulin, USCG Vice Commandant
- **Opening Speaker: Mental Health and Resilience Sponsored by OSRL**  
Dr. Sara Jahnke
- **Keynote: Crisis Leadership at the Cutting Edge**  
Dr. Leonard Marcus
- **Closing Remarks**  
Victoria Broje, IOSC Chair

**Time: 11:00-17:00**

**Session: Exhibit Hall Open**

**Room: Exhibit Hall G**

**Time: 11:30-17:00**

**Session: Ask the Regulators**

**Room: Exhibit Hall G**

**Time: 12:00-13:30**

**Session: Lunch for All**

**Room: Exhibit Hall G**

**Time: 13:30-15:00**

**Session: Case Studies - Dispersants**

Session Chair: Doug Helton (Office of Response and Restoration)

Session Type: Paper

**Room: 275-277**

Papers:

- **Comparative Risk Assessments of Dispersant and Other Oil Spill Response Options Quantifies Oil Exposure Tradeoffs Weighed by Relative Abundance and Recovery Potential of Affected Biota**  
Authors: Deborah P. French-McCay, Melissa Gloekler, Matthew Frediani, Sandra Deeb, Lisa McStay, Gabrielle McGrath
- **Innovative Tool to Estimate Drift Extent from Aerial Spray of Dispersants**  
Authors: Craig Dillon-Gibbons, Hemant Thurumella, Nick D'Arcy-Evans, Eric Jal, Andrew Kilner



- **Spill Impact Mitigation Assessment Case Study: Dispersants Use in Shallow Waters of the Caspian Sea**  
Authors: Victoria Broje, Gulsayat Gabdulova, Nazgul Utegen
- **The effect of crude oil concentration on hydrocarbon degradation and associated bacterial communities under experimental conditions**  
Authors: Jake Smallbone, Terry McGenity, Rob Holland, Gareth Thomas, Frederic Coulon, Tamazon Cowley, Boyd McKew

### **Session: Hazardous and Noxious Substances**

Session Chair: Joseph Troy Swackhammer (US EPA)

Session Type: Paper

**Room: 288-290**

Papers:

- **Canadian Coast Guard Response to the M/V Zim Kingston**  
Authors: Paul Barrett
- **The Construction of a Paradigm in Latin America: The Honduras Model of Oil Pollution and HNS Control**  
Authors: Juan Carlos Rivera Garcia
- **Tackle the evaporation rates of volatile HNS: A lab-scale experiment to serve marine pollution response**  
Authors: Laura Cotte, Ludovic Lepers, Sebastien Legrand, Laurent Aprin, Stephane Le Floch
- **Modelling the fate of brine releases during Carbon Capture and Storage (CCS) operations and the extend of the effects in the marine environment**  
Authors: Konstantinos Kotzakoulakis, Jorgen Skancke, Raymond Nepstad

### **Session: International Collaboration for Oil Spill Preparedness**

Session Chair: Linda Manka (Shell)

Session Type: Paper

**Room: 298-299**

Papers:

- **Agreement for mutual cooperation and assistance on emergency preparedness and response in Norway**  
Authors: Gry Eide Fiksdal, Asle Jossang
- **Assessment of the Wider Caribbean Region's Oil Spill Preparedness and Response Capacity**  
Authors: Michael Hernandez, Paul Schuler
- **Sharing is caring, but is it effective? Mutualization of response resources to grow capacity and strengthen resilience**  
Authors: Lucy Bly, Paul Foley, Andy Myers
- **International collaborative efforts towards preparedness by simulating the drift of marine pollutants during shipwrecks – case studies.**  
Presenter: Prasad Seliamedu Jayaramachandran

### **Session: Microplastics**

Session Chair: Alex Hunt (ITOPF)

Session Type: Paper

**Room: 291-292**

Papers:

- **Development of knowledge on plastic pellets pollution response**  
Authors: Kevin Tallec, Mikael Laurent, Nicolas Jarry, Justine Receveur, Karine Troguer, Camille Lacroix
- **The World Largest Nurdles Spill Incident “mv X-press Pearl” Response: Case Study, Lesson Learned for the Future**  
Authors: Agampodi Jagath Mendis Gunasekara
- **The big plastic see-saw**  
Authors: David Champion, Sam Durrance, Gareth Goosen

### **Session: Spill Surveillance Principles**

Session Chair: Kåre-Ludwig Jorgensen (NOFO)

Session Type: Paper

**Room: 278-280**

Papers:

- **Rethinking surveillance in response**  
Authors: Maria Hartley, Andrew Tucker
- **The Evaluation of Remote Sensing Methods to Determine Oil Slick Thickness**  
Authors: Wesley Lambert, Lisa DiPinto, Nancy Kinner
- **Tissue Hydrocarbon Burdens and Genetic Responses of Mussels Exposed to Polycyclic Aromatic Hydrocarbons Following an Alaskan Oil Spill**  
Authors: James R. Payne, William B. Driskell, Brenda Ballachey, Lizabeth Bowen, Shannon Waters, Eric Litman, Austin Love
- **False Confidence and Time-Series Statistics in Oil Spill Injury Assessments**  
Authors: Heath Byrd, Jeffrey Wakefield, Tony Theis

### **Session: The Wreck of the Kobayashi Maru: A Wildlife Assessment Simulation**

Session Chair: Jason Scott (U.S. Coast Guard)

Session Type: Special Session

**Room: 286-287**

- **Authors: JD Bergeron, Adam Grogan, Danene Birtell**

**Time: 15:00-15:30**

### **Session: Networking Break**

**Room: Exhibit Hall G**

**Time: 15:30-17:00**

### **Session: Advances in Preparation - Training & Education**

Session Chair: Chad Rodrigue (The Response Group)

Session Type: Paper

**Room: 275-277**

Papers:

- **Driving Continuous Improvement in an Emergency Preparedness & Response Program**  
Authors: Joshua Dubach, Ben Badon
- **Case Study on the Use of Live Videoblogging on Delivering Virtual SCAT Training**  
Authors: Norman Lorica Ramos
- **Meaningful Engagement: Designing Hands-on Technical Training to Encourage Collaboration and Mutual Understanding with Tribal Communities, Regulators, Resource Trustees, Industry and Federal Partners**  
Authors: Heather Parker, Edward Owens, Matt Bissell, Sonja Larson, Tim Lupher, Scott Neuhauser, Maria Hartley, Faith Knighton, Kyle Vincent, Michael Tucker
- **Learning by throwing the dice: How serious games can help to understand the complexities of an emergency response and what preparedness should mean**  
Authors: Daniela Barreras Biesot, Saskia Sessions-Puplett, Edel Shanahan, Hugo Nijkamp

### **Session: In-Situ Burning**

Session Chair: Grant Coolbaugh (Applied Research Associates, Inc.; Ohmsett)

Session Type: Paper

**Room: 288-290**

Papers:

- **Proof of concept study for in-situ burn application using conventional containment booms - Design of Burning Tongue**  
Authors: Lin Zhao, Tim Nedwed
- **In-situ Burning with a Floating Flame Refluxer System**  
Authors: Sharanya Nair, Nathaniel G. Sauer, Hsin-Hsiu Ho, Mahesh Kottalgi, Rayna Harter, Kemal S. Arsava, Kathryn P. Trubac, Neil Whitehouse, Ali S. Rangwala, Karen Stone
- **SMART Protocol update for Insitu burns**  
Authors: Adam Davis
- **Remotely Operated Vehicle for Oil Spill Response**  
Authors: Scott Pegau, Tim Nedwed, Tim Thornton, Karen Stone, Kalimov Nurlybek, Jay Cho, Paul Schuler

### **Session: Oil In the Sea IV Update**

Session Chair: Brian House (SCAA)

Session Type: Special Session

**Room: 286-287**

- **Authors: Ed Levine, Victoria Broje, John Farrington, Carys Mitchelmore, Kelly Oskvig, Nancy Rabalais, Dagmar Schmidt-Etkin, Berrin Tansel, Michael Ziccardi**

### **Session: Spill Impacts - Science & Monitoring**

Session Chair: Richard Johnson (ITOPF)

Session Type: Paper

**Room: 298-299**

Papers:

- **The UK Premium Initiative - Updated guidelines and the application of science in post-spill environmental monitoring**  
Authors: Mark F. Kirby
- **Evaluation of spill response equipment**  
Authors: Fanny Jouannin, Mikael Laurent, Fanny Chever
- **Generating data for oil spill models: Applications of passive dosing of polycyclic aromatic compounds with marine microalgae**  
Authors: Danielle Philibert, Benjamin de Jourdan
- **How Much Oil Entered the Ocean from the Line 901 (Refugio Beach) Pipeline Spill?: An Empirical Approach**  
Authors: Paul Boehm, Kristin Robrock

### **Session: Subsea Response Options**

Session Chair: Gina M. Coelho (Bureau of Safety and Environmental Enforcement (Affiliate))

Session Type: Paper

**Room: 278-280**

Papers:

- **Obtaining Regulatory Authorization for Subsea Dispersant Injection in the Gulf of Mexico**  
Authors: Martin Cramer, Timothy Steffek
- **Experiments to Study Weathering of Surface Oil Slicks Resulting from Sub Sea Dispersant Injection (SSDI) Operation**  
Authors: Per Johan Brandvik, Kaja Cecilie Hellstrom, Thor-Arne Pettersen, Per S. Daling, Jorgen Skancke, Karina Heitnes Hofstad
- **Simulation of Hydraulic Dispersion of Oil by Water Jets**  
Authors: Michel Boufadel, Scott Socolofsky, Zhaonian Qu, Tanvir Al Farid, Maduka Maduka
- **Effectiveness of Subsea Mechanical Dispersion (SSMD) as a Function of Oil Properties**  
Authors: Per Johan Brandvik, Frode Leirvik, Karina Heitnes Hofstad, Thomas J. McKeever

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# Date: Wednesday, May 15, 2024

Time: 7:00-17:30

Session: Registration

**Time: 7:00-8:00**

**Session: Scholarship and Emerging Leaders Breakfast (By Invitation Only)**

Emerging Leaders Sponsored by Shell Emergency Management

**Room: 297**

**Time: 8:00-17:00**

**Session: Film Festival & Photo Gallery**

**Room: 274**

**Time: 08:00-09:30**

**Session: Case Studies - Incidents**

Session Chair: Tomas Lastra-Milone (YPF)

Session Type: Paper

**Room: 275-277**

Papers:

- **Multi-Constituent Management of the Largest Spill Clean-Up in the Niger Delta over a 7-Year Period**  
Authors: Vincent Nwabueze, Ogonnaya Iroakasi, Erich Gundlach
- **Looking Back on the M/T Hebei Spirit Oil Spill 12 years Later**  
Authors: Dong Hyun Kim
- **F/V Aleutian Isle: The biggest littlest spill ever?**  
Authors: Faith Knighton, Christopher Barker, Dylan Righi, Katie Kirk, Doug Helton, Kyle Vincent
- **Promoting Collaborative Multistakeholder Synergy for Proactive Prevention of Major Marine Pollution Events: A case study of MT New Diamond Incident**  
Authors: Agampodi Jagath Mendis Gunasekara

**Session: Low Sulfur Fuel Oils**

Session Chair: Will Griffiths (IMO)

Session Type: Paper

**Room: 288-290**

Papers:

- **Transport of Sunken Very Low Sulfur and No. 6 Heavy Fuel Oils on Sand Substrates**  
Authors: Tori Sweet, Nancy Kinner, Melissa Gloekler
- **Conclusions from the 2022 VLSFO Oil Spill on the Swedish West Coast**  
Authors: Jonas Palsson, Kristin Magnusson, Mikael Dahl, Maria Granberg, Malin Holm-Roos
- **Physico-Chemical Properties and Dispersibility of Low Sulphur Fuel Oils (LSFO) and Conventional Crude Oils**  
Authors: Devi Sundaravadivelu, Matthew Alloy, Mace Barron, Robyn Conmy, Kiara Lech
- **Oil Properties of Very Low Sulphur Fuels Compared to Traditional Heavy Fuel Oils and Evaluation of Oil Spill Fate and Behaviour**  
Authors: Robert Faragher, Pervez Azmi, Katherine Shepherd, Meiry Farag, Vanessa Beaulac

## **Session: New Technology Developments - Equipment**

Session Chair: Kelly Marie McFarlin (ExxonMobil)

Session Type: Paper

**Room: 291-292**

Papers:

- **Environmental Protection Barrier: Design, Construction and Operations**  
Authors: James Elliott, Jacqui Michel, Mark Ploen
- **Enhancing the mechanical recovery of oil from marine and freshwater environments**  
Authors: Tim Nedwed, Lin Zhao, Michel Boufadel, Rixue Liu
- **Advanced Well Control using Rapid Cross-linking Polymers**  
Authors: Tim Newdwed
- **Advancing Spill Response in Coastal Regions through the Use of the Functionalized Coating for Oiling Prevention**  
Authors: Huifang Bi, Chunjiang An, Catherine N. Mulligan

## **Session: Proposed Developments in Technology**

Session Chair: Joshua Dubach (NJ Resources)

Session Type: Paper

**Room: 298-299**

Papers:

- **Leveraging Advanced Information Technologies and Artificial Intelligence Applications to Enhance Situational Awareness: New and Future Models for Oil Spill Prevention, Preparedness and Response**  
Authors: William Hazel
- **Expanding Numerical Modeling across the United States to Test Geographic Response Strategies**  
Authors: Gabrielle McGrath, Deanna Bergondo
- **A Suite of Risk and Risk Mitigation Tools**  
Authors: Oyvind Rinaldo, Vivian Jakobsen, Odd Willy Brude
- **Operational Digital Platforms Supporting Operations and Response**  
Authors: Matt Horn, Kelly Knee

## **Session: Updates on the work of ICCOPR, the Interagency Coordinating Committee on Oil Pollution Research**

Session Chair: Thomas Coolbaugh (Applied Research Associates, Inc.; Ohmsett)

Session Type: Special Session

**Room: 286-287**

- **Authors: Elizabeth Petras, Christopher Pace, Robyn Conmy**

## **Session: Wildlife - Impacts**

Session Chair: Rhonda Murgatroyd (Wildlife Response Services)

Session Type: Paper

**Room: 278-280**

Papers:

- **A Strategy For Minimizing Impacts To Alcids and Grebes During Oil Spill Events**  
Authors: Lana Battaglia, Chris Battaglia, Matthias Herborg, Megan Willie, Lee Briton, Lee Briton
- **Use of Passive Acoustic Monitoring to Track Marine Mammals at Offshore Windfarm Sites**  
Authors: Tony Palagyi
- **Sensitivity of six species of Atlantic scleractinian corals to petroleum hydrocarbons**  
Authors: D. Abigail Renegar, Nicholas Turner, Adriana Bejarano, Thomas Parkerton, Gopal Bera, Anthony Knap, Paul Schuler
- **Advanced Simulations of Impacts from Large Oil Spills on Six Commercially Important Fish Stocks in the North Atlantic**

Authors: Geir Morten Skeie, Jolynn Carroll, Håvard Gulbrandsen Frøysa, Achim Randelhoff, Mathias Bockwoldt, Daniel Howell, Raymond Nepstad, Ole Jacob Broch, Gro Harlaug Refseth, Frode Vikebo

**Time: 9:30-17:30**

**Session: Exhibit Hall Open**

**Room: Exhibit Hall G**

**Time: 9:30-10:00**

**Session: Networking Break**

**Room: Exhibit Hall G**

**Time: 9:30-17:30**

**Session: Technical Demonstrations**

**Room: Exhibit Hall G**

**Time: 10:00-11:30**

**Session: Disaster Response**

Session Chair: Tim Nedwed (ExxonMobil - Retired)

Session Type: Paper

**Room: 275-277**

Papers:

- **Using ESRI Off-the-Shelf Customizable Applications to Manage Post-Hurricane Pollution Responses: Vessel, All-hazards, Debris Response (VADR) Tool**  
Authors: Bryan Thom, Mark White, Jennifer Horsman, Adam Davis
- **Social Media Applications and Limitations in Remote Oil Spill Response**  
Authors: Shaylon Cochran
- **Viability of Crowdsourcing for Oil Spill Planning, Response, and Restoration**  
Authors: Ashley Sandquist
- **Advancements in Visualization Technologies for Inland Oil Spill Planning and Response**  
Authors: Mark Robinson, John Bradley

**Special Session: Knowledge Transfer From Seasoned Experts**

Session Type: Special Session

**Room: 286-287**

Speakers:

- **David Dickens, David Dickins & Associates**
- **Roger Prince, Stonybrook Apiary**

**Session: Oil Spill Science - Chemistry**

Session Chair: Robyn Conmy (US EPA)

Session Type: Paper

**Room: 288-290**

Papers:

- **Development and Publication of “A Spill Responder’s Guide to the Physical and Chemical Analysis of Petroleum”**  
Authors: Dalina Thrift-Viveros, Rintaro Moriyasu, Christopher Barker
- **The Effects of Photo-Oxidation, Wave Energy, and Crude Oil Properties on the Microstructure and Viscosity of Water-in-Oil Emulsions**  
Authors: Diego F. Muriel, Carlos Fuentes-Cabrejo, Nicolas Escobar-Castaneda, Joseph Katz

- **Behavior of Diluted Bitumen in a Freshwater Environment: Chemical Analysis**

Authors: Benedette Adewale, Michael Wurl, Michele Fitzpatrick, Timothy Cooke, Wen Ji, Michel Boufadel

- **Analysis of Fate and Behavior and Proposed Response Methodologies Associated with Dielectric Fluid Spills in the Marine Environment**

Authors: Steven Buschang, Kristi McKinney, Jay Cho, Greg Hall, Glen Frysinger, Emma Lynch-Galvin, Jessy George, Alex Balsley, Michael Wurl

### **Session: Prevention, Preparedness and Response - International**

Session Chair: David Davidson (Orion Consulting LLC, Retired from Chevron)

Session Type: Paper

**Room: 291-292**

Papers:

- **Study of the response preparedness in European and Mediterranean ports and identification of best practices and main gaps**  
Authors: Arnaud Guena, Margaux Biglietti, William Giraud
- **Per and polyfluoroalkyl Substances (PFASs) in the Petrochemical Industry in Africa: The Need for Regulatory Framework**  
Authors: Abraham Ekperusi
- **Bird interactions with offshore oil and gas platforms and a specialized remote assistance**  
Authors: Viviane Barquete, Driellie Melo, Natalia Moretti, Valeria Ruoppolo
- **Response to LSFO spills - results from the IMAROS-project**  
Authors: Silje Berger, Fanny Chever, Torben Iversen, Sebastien Legrand, Jelena Savic, Mevric Zammit, Jan Willie Holbu, Hilde Dolva, Ingvild Alstad Frogner, Bjorn Ronny Frost

### **Session: Spill Impacts - Social & Environmental**

Session Chair: Miguel Patel (ITOPF)

Session Type: Paper

**Room: 298-299**

Papers:

- **Impacts of Median-Sized and Large Oil Spills on Shallow Coral Reefs**  
Authors: Lauren Szathmary, Scott Zengel, Jacqueline Michel
- **A Modular Framework to Assess Oil Spill Impacts on Commercial Fish Stocks**  
Authors: Achim Randelhoff, Mathias Bockwoldt, Havard Guldbrandsen Froysa, Daniel Howell, Raymond Nepstad, Ole Jacob Broch, JoLynn Carroll, Gro Harlaug Refseth, Frode Vikebo, Geir Morten Skeie
- **Oil Spill Effects Literature Synthesis of Spills Greater than 500 Barrels: Marine and Coastal Birds**  
Authors: Christine Boring, Jacqueline Michel
- **Building Collaborative Social Science Research Models to Understand the Social, Cultural, and Economic Impacts of Spills**  
Authors: Davin Holen, Danielle Verna

### **Session: Wildlife - Case Studies**

Session Chair: Katlyn Muse (Tri-State Bird Rescue & Research, Inc.)

Session Type: Paper

**Room: 278-280**

Papers:

- **Challenges and Lessons Learned During a Wildlife Response After an Oil Spill of National Significance in Peru**  
Authors: Valeria Ruoppolo, Yavana Murillo, Luis Alberto Delgado Alburquerque, Rodrigo del Rio do Valle, Brigida C. Gandini, Marco Cardena, Rodolfo P. da Silva Filho, JD Bergeron, Barbara Callahan
- **Into the Wild - From the Pacific Ocean to the Mojave Desert and from Rattlesnakes to Sea Otters - Wildlife Response in Diverse Settings**

Authors: Greg McGowan, Danene Birtell

- **Offshore oiled wildlife response planning**

Authors: B. Louise Chilvers, Valeria Ruoppolo

- **Wildlife Response in the Face of Pandemics and Panzootics**

Authors: Lorraine Barbosa, Sam Christie

**Time: 12:00-13:30**

**Session: Lunch for All**

**Room: Exhibit Hall G**

**Time: 13:30-15:00**

**Session: Arctic Response**

Session Chair: John Inge Karoliussen (NOFO)

Session Type: Paper

**Room: 275-277**

Papers:

- **A Snapshot of Spill Preparedness in the Canadian Arctic - Challenges and Opportunities**

Authors: Shannon Wilde, Stephane Johnson

- **Using Existing Environmental Laws to Build Resilient Arctic Communities**

Authors: Jereme Altendorf, Matthew Richards, Jessica Garron

- **Shoreline-Circumpolar Oil Spill Response Viability Analysis (S-COSRVA) - The Svalbard Pilot Study**

Authors: Odd Willy Brude, Ed Owens, Hans Petter Dahlslett, Anders Rudberg, Gjermund Gravir, Synnove Lunde, Tristan Owens

- **Chemical characteristics and acute toxicity of low sulphur fuel oils and their fate and behaviour in cold water and Arctic conditions**

Authors: Liv-Guri Faksness, Jon Arve Royset, Dag Altin, Kristin Sorheim, Silje Berger, Per Daling

**Session: Back to Basics: Revisiting the International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC 90)**

Session Chair: Tim Wadsworth (ITOPF)

Session Type: Special Session

**Room: 286-287**

- **Authors: Paul Schuler, Paul Schuler, Paul Schuler, Paul Schuler**

**Session: Case Studies - International Coordination**

Session Chair: Miguel Moyano (ARPEL)

Session Type: Paper

**Room: 288-290**

Papers:

- **Model Tier II Organization for Oil Spill Preparedness and Response for Developing Countries: Case of Oil Spill Mutual Aid Group (OSMAG) Society in Kenya**

Authors: Okanga Washingtone Anjichi, Michael Mbaru

- **MT PRINCESS EMPRESS Oil Spill Response in the Philippines: International Coordination and Communication**

Authors: Stacey Crecy, Ruth Yender, Johna Rossetti

- **International Assistance: Sharing the Load or Muddying the Waters?**

Authors: Alex Hunt, Angela Pinzon-Espinosa, David Campion

- **Tier II - Tier III Dilemma State and Oil Industry in Latin America: The Peruvian Case**

Authors: Carlos Sagrera



## **Session: Oil Spill Science - Physical-Chemical Processes**

Session Chair: Ingrid Christina Taban (NOFO)

Session Type: Paper

**Room: 291-292**

Papers:

- **The Impact of Oil Properties on Seawater-in-Oil Emulsion Formation: a Mesocosm Flume Tank Investigation**  
Authors: Wen Ji, Jayanth Yalamanchilli, Lin Zhao, Timothy J. Nedwed, Roger C. Prince, Christoph Aeppli, Michel C. Boufadel
- **A Novel Approach to Study the Impact of UV Energy on the Stability of Water-in-Oil Emulsion Formation on the Ohmsett Test Tank**  
Authors: Karen Stone, Alan Guarino
- **Mixed Rock and Sediment Shorelines: Long-term Persistence of Intertidal Oiling and Remediation Considerations**  
Authors: Zachary Nixon, Jacqueline Michel, Scott Zengel, Jennifer Weaver, Linos Cotsapas, Philip Bambach, Harold Fravel
- **The Fragmentation of Oil-Particle Aggregates Over a Prolonged Period in the Turbulent Environment and the Modelling of the Breakup Mechanism**  
Authors: Ruixue Liu, Wen Ji, Kenneth Lee, Michel Boufadel

## **Session: Prevention, Preparedness and Response - General Issues**

Session Chair: Helen Dubach (CTEH)

Session Type: Paper

**Room: 298-299**

Papers:

- **Development of Response Information for Offshore Oil Spills in Area Contingency Plans**  
Authors: Gabrielle McGrath, Bryan Rogers, John Caplis
- **Recent Advancements In Prince William Sound Open Water Response Capabilities**  
Authors: Mark Ploen, Eric Haugstad
- **Environmental Sensitivity Index (ESI): State of the Program**  
Authors: Nicolle Rutherford
- **Trends and Observations on 50 Years of Oil Spill Statistics**  
Authors: Dagmar Etkin

## **Session: Spill Funding**

Session Chair: Meridena Kauffman (USCG)

Session Type: Paper

**Room: 278-280**

Papers:

- **Cost of oil spills. A review of international cost data and the factors affecting the costs of oil spills from ships**  
Authors: Tim Wadsworth
- **When the Spiller Doesn't Know Who to Pay: The Application of MARPOL in Multi-National Shared Internal Waters**  
Authors: Nick Monacelli, Jesse Thrift
- **The direct costs associated with the New Zealand MV Rena oil spill**  
Authors: Alexandra L. Egan, B. Louise Chilvers, Sue Cassells, John Rolfe
- **Detailed Spill and Multimedia Modeling in Support of a Human Health Risk Assessment in English Bay, Vancouver, British Columbia, Canada**  
Authors: Aurelien Hospital, Moien Mojabi, Christine McFarland, Daniel Smith, Paul Mazzocco, Annick St-Amand, Malcolm Stephenson, Tania Noble, Elliott Taylor

**Time: 15:00-15:30**

**Session: Networking Break**

**Room: Exhibit Hall G**

**Time: 15:30-17:00**

**Session: Indigenous Community Integration**

Session Chair: Haliehana Stepetin (Ted Stevens Center for Arctic Security Studies)

Session Type: Paper

**Room: 275-277**

Papers:

- **Hailzaqv (Heiltsuk) Nation RETOS Workshop: Advancing Indigenous Leadership in Oil Spill Planning and Preparedness**  
Authors: Daniel Reid, Diana Chan, Elliott Taylor PhD
- **The Evolution of Canadian Shoreline Characterization: Using Pre-scat Surveys in Collaboration with First Nations**  
Authors: Sonia Laforest
- **British Columbia First Nations Set a Higher Bar for Collaborative Marine Response Preparedness**  
Authors: Steve Diggon, Iwan Ball, Elise DeCola
- **Vessels of Opportunity Pioneer Project in Brazil – A 5-year Critical Review and Lessons Learnd**  
Authors: Pedro Martins, Adriano Ranieri, Pedro Perez, Maira de Oliveira, Suely Ortega, Stephanie Caplan, Caroline Canellas

**Session: New Technology Developments - Data & Research**

Session Chair: Christopher Tracy (Heritage Environmental Services)

Session Type: Paper

**Room: 288-290**

Papers:

- **A Proposed Approach to Measure Oil Removal Efficiency by Surface Washing Agents in the Laboratory**  
Authors: Robert Grosser, Devi Sundaravadivelu, Raghu Venkatapathy, Robyn Conmy
- **Opportunities for testing and operationalizing new technologies for shoreline oil spill assessment and cleanup: technical options, recommendations, and a management proposal**  
Authors: Troy Baker, Steven Buschang, Lisa DiPinto, Nancy Kinner, Lauren Courtemanche
- **The American Petroleum Institute's Role in Addressing Research Priorities through Collaboration**  
Authors: Adriana C. Bejarano, Timothy J. Steffek
- **Independent Evaluation of Adsorbents for Oil Spill Responders**  
Authors: Alexander Balsley, Kristi McKinney

**Session: Ship to Ship Transfers**

Session Chair: David A. Du Pont (Commandant (CG-REG), U.S. Coast Guard)

Session Type: Paper

**Room: 291-292**

Papers:

- **Oil Spill Response Planning for Ship-to-ship Operation Brazil - Use of Modelling Tools to Support Decisions**  
Authors: Rodrigo Cochrane Esteves
- **Cumulative Impacts of Maritime Expansion on Endangered Seabirds in Algoa Bay, South Africa focusing on Ship-To-Ship Fuel Bunkering**  
Authors: Monica Stassen, Nicky Stander
- **FSO SAFER oil spill risk - addressing the threat of a deteriorating super tanker**  
Authors: Patricia Charlebois, Will Griffiths
- **The Development and 5-year Outcomes of the Western Alaska Tanker Lightering Best Practices Committee**  
Authors: Steven Gabelein

## **Session: Spill Impacts - Marshes**

Session Chair: Brian Reilly (CSA Ocean Sciences)

Session Type: Paper

**Room: 298-299**

Papers:

- **Update to the NOAA Job Aid on Oil Spills in Marshes: Planning and Response Considerations**  
Authors: Jacqueline Michel, Scott Zengel, Nicolle Rutherford, Pamela Latham
- **Examining Variation in Response to No. 2 Fuel Oil Exposure Between Tall- and Short-Form Saltmarsh Cordgrass (*Spartina alterniflora*): Implications for Marsh Restoration After an Oil Spill**  
Authors: Raven Ferguson, Emily Pisarski, Paul Pennington
- **Evaluation of the Efficacy of Remediation Techniques at Hypersaline Salt Marsh Remediation Projects Impacted by the Gulf War Oil Spill**  
Authors: Zachary Nixon, Jennifer Weaver, Linos Cotsapas, Scott Zengel, Philip Bambach, Jacqueline Michel, Harold Fravel
- **The Cost Effectiveness of Emergency Marsh Restoration**  
Authors: Jeff Wakefield, Gary Harmon, Jessica Webber

## **Session: Spill response best management practices for aquaculture sites**

Session Chair: Kåre-Ludwig Jorgensen (NOFO)

Session Type: Special Session

**Room: 286-287**

- **Authors: William Whitmore, Danny Badger, Stephen Sempier**

## **Session: Transfer of Knowledge - Diversity**

Session Chair: Maria Hartley (Chevron)

Session Type: Paper

**Room: 278-280**

Papers:

- **Implementing Diversity, Equity and Inclusion Strategy – Learnings for Oil Spill Industry Development**  
Authors: Gemma Littlewood, Marta Januszevska
- **Considering Environmental Justice in Restoration Decision-Making**  
Authors: Theodore Tomasi
- **Understanding Culture in the Context of Emergencies: a Step towards a More Effective International Spill Response**  
Authors: Angela Pinzon-Espinosa, Ayumi Therrien
- **A Case For Incorporating Environmental Social & Governance (ESG) Into Spill Response**  
Authors: Amy Jewell

**Time: 17:30-18:30**

**Session: Hot Topics: The Challenges of Rogue Spills**

**Room: 278-280**

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# **Date: Thursday, May 16, 2024**

Time: 7:00-14:30

Session: Registration

**Time: 7:00-8:00**

## **Session: Scholarship and Emerging Leaders Breakfast (By Invitation Only)**

Emerging Leaders Sponsored by Shell Emergency Management

**Room: 297**

**Time: 8:00-13:00**

## **Session: Film Festival & Photo Gallery**

**Room: 274**

**Time: 08:00-09:30**

## **Session: Alternate Fuels**

Session Chair: Jodi Harney (Continental Shelf Associates)

Session Type: Paper

**Room: 275-277**

Papers:

- **Fate and Behaviour of Diesels (B0, B10, B30) and Biodiesels (FAME, HVO) in Case of an Accidental Spill**  
Authors: Ronan Jezequel, Karine Treguer, Justine Receveur, Stephane Le Floch
- **Alternative Fuel Response Operations: The Evolution of Marine Casualty Response**  
Authors: James Elliott
- **Weathering and toxicity of biofuels (FAMEs and HVOs) and their dispersant effectiveness - A laboratory study**  
Authors: Liv-Guri Faksness, Silje Berger, Kristin Sørheim, Dag Altin, Hilde Dolva, Jan Willie Holbu, Per Daling
- **Alternative fuels: a shift in the response paradigm?**  
Authors: Andrew Le Masurier

## **Special Session: Knowledge Transfer From Inland Responders**

Session Type: Special Session

**Room: 286-287**

Speakers:

- **Rich D'Allassandro, Marine Spill Response Corp.**
- **Robert Starkes, East Canada Response Corp.**
- **Matt Simmons, Oil Spill Response Limited**

## **Session: Case Studies - Non Traditional Sources**

Session Chair: Scott Metzger (East Bay Environmental, LLC)

Session Type: Paper

**Room: 288-290**

Papers:

- **Florida Municipal Power Agency/Keys Energy Discharge 2021-2023**  
Authors: Hayden Hunt
- **Incessant Sabotage Spills in the Niger Delta: Implications on the Soil and Groundwater Environments**  
Authors: Anibasa Usman, Babalola Akinpelumi, Pamela Ezediegwu, Hirse Pankyes M.
- **Canadian Coast Guard Response to the M/V Schiedyk**  
Authors: Paul Barrett
- **A response guidance tool for determining the impact of SSDI on released oil and gas from artificial subsea oil well blowout simulations**  
Authors: Kelly McFarlin, Scott Socolofsky, Michel Boufadel, Inok Jun, Youyu Lu, Ruixue Liu, Samuel Arey

## **Session: Oil Spill Science - Toxicology and Ecology**

Session Chair: Anthony Palagyi (CTEH)

Session Type: Paper

**Room: 291-292**

Papers:

- **Potential Field Exposures and Aquatic Toxicity to Inform Response Activities, Impact Evaluations and Oil Toxicity Research Needs**  
Authors: Deborah P. French-McCay, Hilary Robinson, Matthew Frediani, Melissa Gloekler, Sandra Deeb
- **Oil Spill Response Considerations for Pelagic Sargassum**  
Authors: Scott Zengel, Jennifer Weaver, Hal Fravel, Paige Doelling, Brad Benggio, Jacqui Michel
- **The Impact of Crude Oil Exposure on Snow Crab (*Chionoecetes opilio*) Larvae Survival: A Study on the Latent Effects Following Exposure**  
Authors: Benjamin de Jourdan, Danielle Philibert
- **Shoreline Response: Lessons from the BIOS and ITOSS Field Experiments and Long-Term Spill Studies**  
Authors: Edward Owens, Gary Sergy, Roger Prince, Kenneth Lee

**Session: Spill Surveillance Assets**

Session Chair: Jeremy Hurd (MSRC)

Session Type: Paper

**Room: 298-299**

Papers:

- **LiDAR Oil Characterization and Automated Software Development**  
Authors: Damien Josset, Stephanie Cayula, Stephen Sova, Jay Cho, Scott Pegau
- **Early Warning Oil Spill Detection System - A new method of oil spill surveillance and monitoring in a Small Island Developing State**  
Authors: Shaleni Gopie, Marc Rudder
- **Evaluation of multi-copter UAS performances in maritime pollution events through an integrated approach during fields trials with real HNS**  
Authors: William GIRAUD, Pascal Pitor, Margaux Biglietti, Nicolas Jarry, Karine Tréguer, Arnaud Guéna, Michela Mannozzi, Francesco Rende, Federico Filipponi, Luigi Alcaro, Valerio SAMMARINI
- **Low-Cost ROVs for Pollution Response: Drones of the Sea**  
Authors: Jerome Popiel, Joshua McElhaney

**Session: Wildlife - Response Coordination**

Session Chair: Will Gala (Chevron (retired))

Session Type: Paper

**Room: 278-280**

Papers:

- **EUROWA: a European mutual assistance system for oiled wildlife emergencies**  
Authors: Saskia Sessions-Puplett, Edel Shanahan, Daniela Barreras Biesot, Hugo Nijkamp, Vanessa Ryan, Sascha Regmann
- **Creating a Multi-Stakeholder Community of Practice for Wildlife Preparedness and Response**  
Authors: Richard Davi, Anne-Laure Szymanski, Paul Kelway, Hugo Nijkamp, Franchesca Rouse
- **Integrating wildlife across Incident Command**  
Authors: Michael Short
- **Designing and implementing a meaningful Tier 3 wildlife response element in a large-scale industry oil spill exercise in Africa**  
Authors: Franchesca Rouse, Miguel Cordeiro, Saskia Sessions-Puplett, Nicky Stander, Viviane Barquete, Claude Velter, Paul Kelway

**Time: 9:30-13:00****Session: Exhibit Hall Open****Room: Exhibit Hall G**

**Time: 9:30-10:00**

**Session: Networking Break**

**Room: Exhibit Hall G**

**Time: 10:00-11:30**

**Session: Best Practices and Protocols**

Session Chair: Barbara Parker (Shell)

Session Type: Paper

**Room: 275-277**

Papers:

- **Optimizing the Response Evaluation Process**  
Authors: C. Agneta Dahl, Shawn Essert, Thomas H. Smith
- **The RETOS Experience: International Guidelines and Tools for Assessing Oil Spill Response Planning and Preparedness**  
Authors: Elliott Taylor, Miguel Moyano, Dario Miranda, Will Griffiths, Ian Sealy
- **Findings from a Workshop on Environmental and Social Risk: Practical Approaches to Marine Casualty Management**  
Authors: Shannon Wilde, Stephane Grenon, Greg Challenger, Nicky Cariglia, Amy Jewell
- **Prevention effectiveness of Critical Infrastructure Networks: the analysis of California's Oil Spill Prevention and Response Network**  
Authors: Anaïs Valiquette L'Heureux

**Session: Even More In-Situ Burning**

Session Chair: Thomas Coolbaugh (Applied Research Associates, Inc.; Ohmsett)

Session Type: Paper

**Room: 288-290**

Papers:

- **Multi-Scale Experimental Characterization of In-Situ Burning Using Fire Whirls and the Effect of Oil Slick Thickness on Burning Efficiencies and Emissions**  
Authors: Joseph L. Dowling, Mohammadhadi Hajilou, Wuquan Cui, Mitchell Huffman, Bhushan Pawar, Elaine Oran, Qingsheng Wang, Karen N. Stone, Michael J. Gollner
- **Advances in plume dispersion modeling using emissions data from an Unmanned Aircraft System**  
Authors: Brian Gullett, Fong Ngan, Johanna Aurell, Mark Cohen, Karen Stone, Josip Adams, Victoria Scholl, Chris Owen
- **Smoke reduction for in-situ burning**  
Authors: James Brian Mitchell, Merv Fingas, Kurt Hansen, Shawn McKerry, Wayne Rose
- **Predicting ignitability of oil slicks for in-situ burning operations as a function of weathering and oil properties**  
Authors: Per Johan Brandvik, Liv-Guri Faksness, Janne Fritt-Rasmussen, Frode Leirvik, Thor-Arne Pettersen, Jorgen Skancke, Oda Omholt, Andreas Steinvik

**Session: Oil Spill Planning**

Session Chair: Jereme Altendorf (US Coast Guard, Ted Stevens Center for Arctic Security Studies)

Session Type: Paper

**Room: 291-292**

Papers:

- **Development of Offshore Ecological Resources at Risk Response Information for Area Contingency Plans**  
Authors: Lauren Szathmary, Christine Boring, Mark White, Jennifer Weaver, Jacqueline Michel, Gabrielle McGrath
- **Estimation of marine incidents and oil spills: counts and probabilities for coastal waters of US and Canada**  
Authors: Vasile-Alexandru Suchar, JD Ross Leahy, Alex Hess, James Murphy, Adam Byrd
- **Using Foresight Theory to Envision Climate-Ready Oil Spill Preparedness and Response**  
Authors: Elise DeCola, Sam Butler

- **Environment and Climate Change Canada's Next Generation Oil Spill Sampling Program**

Authors: Patrick Lambert

### **Session: Spill Surveillance Techniques**

Session Chair: Lawrence Malizzi (CTEH)

Session Type: Paper

**Room: 298-299**

Papers:

- **Aerial Quantification of Oil - Comparing Oil Categories with BAOAC Using National Aerial Surveillance Program (NASP) Data**  
Authors: Kim Pearce
- **Oil Slick Thickness Measurement using Thermal Sensors in Arctic Environments**  
Authors: Wesley Lambert, Lisa DiPinto, Nancy Kinner, Oscar Garcia, Dana Tulis, Alex Balsley
- **A Long-Range Fluorescence-Based Optical Detector for Oil Spills**  
Authors: Christian Winther, Chris Chase, Matthew Anderson, David Pullman, Steven Van Bibber, Arash Keyashian, Kayla Ryan, Faith Poutoa, Valiant Smith
- **Effect of Water and Air Temperature and Light Levels on Thermal Sensing of Oil Slick Thickness**  
Authors: Wesley Lambert, Nancy Kinner, Lisa DiPinto, Oscar Garcia, Scott Pegau

### **Session: Transfer of Knowledge**

Session Chair: Timothy Steffek (American Petroleum Institute)

Session Type: Paper

**Room: 278-280**

Papers:

- **Challenging Risk-Averse Culture with Acceptable Failure**  
Authors: David Vihonski
- **Efforts to further engage the academic and research community into the world of operational spill response by an oil spill response organisation (OSRO)**  
Authors: Rob Holland, Rhea Shears, Dan Lambley
- **The Evolution of Oil and Gas Regulators in times of Climate Change: Institutional Responses to the Energy Transition**  
Authors: Margarita Nieves
- **Harnessing Artificial Intelligence for Efficient and Accurate Oil Spill Detection in Satellite Imagery**  
Authors: Juan Pena

**Time: 11:30-13:00**

**Session: Lunch for All**

**Room: Exhibit Hall G**

**Time: 12:30-14:00**

**Session: Collaboration on Training and Exercises to Develop the Sixth Generation of Spill Responders and Incident Managers**

Session Chair: Will Griffiths (IMO)

Session Type: Special Session

**Room: 286-287**

- **Authors: Keith Donohue, Keith Donohue, Michael Drieu, Michael Baccigalopi, Jennifer Crouch, Jimmy A Martinez, Tim Nedwed, Roy Barrett**

### **Session: Oil Spill Science - Modelling**

Session Chair: Dr Polly Hill (IPIECA)

Session Type: Paper

**Room: 275-277**

Papers:

- **NOAA's Response Modeling - Challenges and Innovations**  
Authors: Amy MacFadyen, Christopher Barker
- **Oil Weathering Model Updates to Account for Physical Property Changes with Evaporation, Emulsification and Photo-oxidation**  
Authors: Melissa Gloekler, Deborah French McCay
- **Modelling oil thickness in the OSCAR oil spill model: improvements for natural entrainment by breaking waves**  
Authors: Jorgen Skancke, Raymond Nepstad, Konstantinos Kotzakoulakis
- **HCA Assessments for Offshore Pipelines and Other Infrastructure**  
Authors: Matt Horn, Matt Frediani

### **Session: Prevention, Preparedness and Response - Regulatory**

Session Chair: Brian Sullivan (IPIECA)

Session Type: Paper

**Room: 288-290**

Papers:

- **Sustainability in Marine Pollution Response - a Marine Insurer's View**  
Authors: Frank Gonynor, Tonje Castberg, Per Martin Langaas, Andreas Brachel, Dimitris Giginis, Dimitris Giginis
- **Development of Local Level Contingency Planning Guidance for Authorities' Implementation of the OPRC Convention**  
Authors: Peter Taylor, Robert Cox, Ole Kristian Bjerkemo
- **Geographic Response Plans: Preparing for Inland Oil Spills in California Waterways**  
Authors: Anna Burkholder
- **Integrating Traditional Field Efforts and Remote Sensing to Monitor Marsh Recovery**  
Authors: jeffrey Wakefield, Jessica Webber, Gary Harmon

### **Session: Research Outcomes - Restoration**

Session Chair: Nicole Franks (NJR)

Session Type: Paper

**Room: 291-292**

Papers:

- **Comparison of Replanting Tactics after a Simulated Marine Diesel Fuel Spill in Estuarine Mesocosms**  
Authors: Paul Pennington, Edward Wirth, Emily Pisarski, James Daugomah, Scott Zengel, Carl Childs, Marie DeLorenzo
- **Scaling Human Use Restoration Projects: Evidence from Deepwater Horizon Restoration Monitoring**  
Authors: Heath Byrd, Jeffrey Wakefield
- **Scaling Restoration for Impacts to Sediment Resources Following an Oil Spill**  
Authors: Angeline Morrow, Jeffrey Wakefield, Gary Harmon
- **Update of Large-scale Mangrove Cleanup and Revegetation of 1000 ha in the Eastern Niger Delta**  
Authors: Erich Gundlach, Ogonnaya Iroakasi, Nicholas Story, Vincent Nwabueze, Inemo Samiama, Boniface Dumpe

### **Session: Risk Assessment & Operational Visualization**

Session Chair: Robert Chambers (Chambers Consulting LLC)

Session Type: Paper

**Room: 298-299**

Papers:

- **Advancing the Common Operational Picture**  
Authors: Chander Ganesan, Jay Coady
- **Multi-dimensional Quantitative Analysis for Geographic Response Strategy Validation**



Authors: Michael Persun, Deanna Bergondo, Tyler Polon

- **Methods for Semi-Quantitative Oil Spill Risk Assessment for Coastal Alaska**

Authors: Jacqueline Michel, Catherine Berg, Matthew Richards

- **Optimized Underwater Detection of Dispersed Oils Using Scanning Fluorometry**

Authors: Wen Ji, Ann G. Slaughter, Gina M. Coelho, Timothy J. Nedwed, Roger C. Prince, Michel C. Boufadel

## **Session: Wildlife - Preparedness and Response**

Session Chair: Elizabeth Petras (USCG)

Session Type: Paper

**Room: 278-280**

Papers:

- **Industry Collaboration Supporting an Effective Wildlife Response During an Oil Spill Incident**

Authors: Stuart Field, Phillip Starkins

- **Tomorrow belongs to people who prepare for it today: perspectives on African oiled wildlife preparedness and response**

Authors: Nicky Stander, Saskia Sessions-Puplett, Monica Stassen, Hugo Nijkamp, Daniela Barreras-Biesot, Edel Shanahan

- **Endangered Species Act Section 7 and National Historic Preservation Act Section 106: Navy On-Scene Coordinator Emergency Consultations During Response to Sunken Vessel**

Authors: Heather Parker, Tyana Thayer

**Time: 14:00-14:30**

**Session: Networking Break**

**Room: New Orleans Theater Foyer**

**Time: 14:30-16:30**

**Closing Plenary Session**

Session Type: Plenary

**Room: New Orleans Theater**

- **Welcome and Introductions**

Victoria Broje, IOISC Chair

- **Panel Discussion**

Lisa McAuliffe, Patrick Brady, Frank Paskewich, VADM Peter Gautier

- **Q&A**

- **Closing Remarks and Boomerang Transfer**

Victoria Broje, IOISC Chair

**Time: 18:00-21:00**

**Session: Closing Event at The National WWII Museum Sponsored by Marine Spill Response Corporation**

**Room: WWII Museum 945 Magazine St, New Orleans, LA 70130**