WASHINGTON BEST ACHIEVABLE PROTECTION

TECHNOLOGY CONFERENCE

May 20-21, 2015

Henry M. Jackson Federal Building, Seattle

U.S. COAST GUARD THIRTEENTH DISTRICT

DEPARTMENT OF ECOLOGY State of Washington

Best Achievable Protection

What is BAP?

BAP is achieved through requiring best achievable technology, staffing levels, training procedures, and operational methods in oil spill contingency plans. Ecology is currently in year three of the first best achievable protection review cycle.

Ecology and the United States Coast Guard (USCG) are co-hosting this BAP technology conference to build on the Northwest Area Contingency Plan ad hoc equipment review meetings, while incorporating the new BAP review criteria. The response community in the Pacific Northwest has a long history of meeting annually to look at new technologies. The new legislation formalizes a long term practice that reflects the community's interest in these topics and industry participation in finding solutions. The BAP technology conference allows us to review the operational feasibility of new technology before spills occur and inform the community about technologies already available to support spill responsse.

How BAP benefits Washington

Ecology calculated that a major marine oil spill could cost Washington's economy $10.8 billion and adversely affect up to 165,000 jobs. This is due to disruptions to maritime shipping and public port activities, recreation, tourism, and injuries to state fish, shellfish, and wildlife resources.

Preparedness activities like the BAP cycle support our goal of rapid, aggressive, and well coordinated response. Preparedness measures minimize impacts to sensitive environmental, cultural, and economic resources.

Why it matters

BAP uses a collaborative approach to address response issues, remove technical or regulatory barriers to the implementation of new technologies, and measure our results. BAP provides transparency for the public.

For more on BAP, visit Ecology's website at:
http://www.ecy.wa.gov/programs/spills/preparedness/BAP.html criteria.

Agenda

Wednesday, May 20, 2015

0830 - 0845	**Introductions, Safety Briefing** *Scott Knutson, USCG D13 & Sonja Larson, Ecology*
0845 - 0850	**Opening Remarks** *Kathy Taylor, Ecology*
0850 - 0905	**Introduction to the COP - current state, federal, and industry standards** *Scott Knutson, USCG D13 & Sonja Larson, Ecology*
0905 - 0930	**Developments in interactive digital situation status and common operating picture display processes** *Fred LeJeune, ConocoPhillips Polar Tankers*
0930 - 0955	**Crisis and incident management using today's technology** *Kenny Rhame, The Response Group (TRG)*
0955 - 1015	**Break**
1015 - 1040	**Good COP, bad COP - do you know ERMA?** *Ben Shorr, NOAA National Ocean Service, Office of Response and Restoration*
1040 - 1105	**WRRLtrac - a common operational picture springboard** *Al Hielscher, Genwest Systems, Inc.*
1105 - 1130	**Washington Department of Ecology Spills Program data project** *Conor Keeney, Ecology*
1130 - 1155	**Determining seabird presence, abundance, and distribution in areas at risk for oil spills in the Salish Sea** *Jerry Joyce, Moon Joyce Resources*
1155 - 1210	**Discussion**
1210 - 1330	**Lunch**
1330 - 1355	**Mapping baseline oil pollution & tracking oil breakouts in sensitive bays and estuaries** *Jeff Wynn, U.S. Geological Survey*
1355 - 1420	**Expanding spill status awareness for the COP with aerial and satellite remote sensing** *Dr. Jan Svejkovsky, Ocean Imaging Corp.*
1420 - 1435	**Break**
1435 - 1440	**Introductions of new topic: effective daily recovery capacity, current state and federal regulations/requirements** *USCG & Ecology*
1440 - 1600	**Development of the estimated recovery system potential (ERSP) calculator** *Alan A. Allen, Spiltec & Dean Dale, Genwest Systems, Inc.*
1600 - 1610	**Discussion**
1610	**Adjourn**

Agenda

Thursday, May 21, 2015

0900 - 0915	**Introductions, safety briefing, and opening remarks** *Scott Knutson, USCG D13 & Sonja Larson, Ecology*
0915 - 0920	**Opening Remarks** *Kathy Taylor, Ecology*
0920 - 0930	**Introduction to submerged oils response tools - current requirements, state & federal regulations** *Sonja Larson, Ecology & Scott Knutson, USCG D13*
0930 - 0955	**The tank barge DBL 152 response: lessons learned** *Jim Elliott, T&T Salvage*
0955 - 1020	**Case study NESA R3: ship sinking and bitumen spill - Port Sultan Qaboos Sultanate of Oman, June 2013** *Vince Mitchell, Lamor Corporation*
1020 - 1035	**Break**
1035 - 1100	**Diver safety and production when dealing with submerged oils** *David DeVilbiss, Global Diving and Salvage, Inc.*
1100 - 1125	**Incorporating manned submersibles into submerged oil spill responses: detection and recovery strategies** *Dave Usher & Bill Hazel, Marine Pollution Control*
1125 - 1150	**Subsurface oil detection and mapping on shoreline, shallow water and inland spills** *Ed Owens, Owens Coastal Consulting*
1150 - 1205	**Discussion**
1205 - 1330	**Lunch**
1330 - 1345	**Continuation of ad hoc equipment presentations - oil detection & surveillance - current state and federal regulations/requirements** *USCG & Ecology*
1345 - 1435	**Aerial remote sensing for real-time tactical use during oil spills - Marine Spill Response Corporation (MSRC) remote sensing program** *Jan Svejkovsky, Ocean Imaging Corporation & Steve Benz, MSRC*
1435 - 1500	**Transport Canada surveillance capabilities** *Kim Pearce, Marine Aerial Reconnaissance Team (MART), Environment Canada*
1500 - 1520	**Break**
1520 - 1545	**King County Sheriff air support capabilities during an oil spill** *Hersh Hoaglan, King County Sheriff's Office, Air Support Unit*
1545 - 1610	**The future of remote sensing from a responders perspective** *Mark Ploen, QualiTech Environmental*
1610 - 1620	**Discussion**
1620	**Adjourn**

Developments in interactive digital situation status and common operating picture diplay processes

Fred C. LeJeune, CSP, ConocoPhillips Polar Tankers

Abstract:

The display of information about the nature and status of response operations is a critical and challenging aspect of establishing and maintaining a command and control environment. In an effort to modernize and streamline the situation status display processes, Polar Tankers collaborated with The Response Group to develop an interactive digital display. The goal was to provide personnel in the Incident Command Post the ability to view status information related to the ongoing response on a near real-time basis and to allow Unified Command to share that information in a secure controlled manner with key stakeholders outside the command post. IAP software powers the display, which uses customizable touch screen interfaces, which allow users to view documents digitally, easily scroll through multi page documents, and switch between related documents. These interfaces feature the ability to select and view all forms deemed necessary to provide a common situation status picture of the current operational period. Secure remote viewing is available with Unified Command approval.

Speaker biography:

Mr. LeJeune has a B.S. in Environmental Science and is a Certified Safety Professional (CSP). He has been with ConocoPhillips for 17 years and has been serving as the response and preparedness lead for Polar Tankers for the last 9 years. LeJeune is also a member of the Prince William Sound Response Planning Group and serves as the plan administrator for the joint industry Prince William Sound contingency plan.

Speaker contact information:

Fred C. LeJeune, CSP, ConocoPhillips Polar Tankers
Director, Emergency Response
600 North Dairy Ashford, TA2020, Houston, TX 77079
Phone: (281) 293-6357

Crisis and incident management using today's technology

Kenny Rhame, The Response Group

Abstract:

Everyone agrees that technology is getting smarter every year. Today's technology gives us many ways to quickly capture and display information for managing crises and incidents. Emergency response personnel in the field can capture and provide real-time information that is crucial for decision making and planning. Software that adheres to the incident planning process allows Incident Management Team members to quickly capture initial incident documentation while integrating the information with other forms. Come witness how this information management strategy results in the ability to most efficiently and effectively deliver a detailed Incident Action Plan.

Speaker biography:

Mr. Rhame is the Chief Information Officer at The Response Group and possesses more than 20 years of experience in GIS specializing in information management and emergency response. Kenny provides technical leadership and is responsible for all software development, data management, and information systems within The Response Group.

Speaker contact information:

Kenny Rhame, The Response Group
13939 Telge Rd, Cypress, TX 77429
E-mail: krhame@responsegroupinc.com
Cell: (832) 493-3272
www.responsegroupinc.com

Good COP, bad COP - do you know ERMA?

Ben Shorr, NOAA

Abstract:

NOAA's environmental response management application (ERMA) is an online mapping tool that integrates static and real-time data in a centralized, easy to use format for response planners, responders, and decision makers. As a common operational picture (COP), ERMA provides a platform for collaborative response planning, on-scene and remote data sharing, and display during an incident. Regional ERMA applications have secure access control for both data and users and cover the coastal and inland United States and territories. The NOAA team works year-round with regional partners on outreach and training, and ensures data is as current as possible. During a hazardous event, data can be quickly added to ERMA. A central focus of the NOAA team's approach is cooperative data management, data standards, and data sharing. NOAA has been working with state and industry partners to champion an information management plan, a framework for how cooperatively collected and processed data are managed, shared, and displayed for an incident.

Speaker biography:

Mr. Shorr is a scientist with NOAA's Office of Response and Restoration with expertise at the nexus of data management, ecologic risk science, and GIS principles applied to response and restoration of contaminants in the environment. Ben is the regional lead for NW ERMA, and was a lead in the DWH Subsurface Monitoring Unit. He has a B.S. in Civil and Environmental Engineering from UW Madison.

Speak contact information:

Ben Shorr, NOAA National Ocean Service
Office of Response and Restoration
7600 Sand Point Way NE, Seattle, WA 98115
E-mail: benjamin.shorr@noaa.gov
Phone: (206) 526-4654

WRRL trac - a common operational picture springboard

Al Hielscher, Genwest Systems, Inc.

Abstract:

The initial days of a response are often the most challenging. People and equipment arrive, plans are generated, field operations are begun. An accurate response status picture is critical to effective decision making and response management, yet can be so difficult to attain early on. WRRLtrac is a tool that helps to provide this capability with minimal support and effort. It's scalable as a single or multi-user data management system; it's compatible with the WRRL database format and ICS conventions, facilitates geo-coordinated data, and capable of sharing data with other systems through virtually all common file formats. WRRLtrac focuses on 3 foundational capabilities: 1.) rapid, accurate data input and collection; 2.) flexibility and speed in generating lists, forms, maps, and reports; and 3.) ease of data sharing, distribution, and export to other systems. Thankfully, most responses are relatively small and short-lived. WRRLtrac is a tool designed to be employed early, for the duration of a response with the option of passing data to larger systems for large, prolonged responses.

Speaker biography:

Mr. Hielscher's involvement with spill response information management began in 1987. Prior to that, he managed research expeditions on the arctic ice pack. He's participated in the development and instruction of numerous incident response tools with the overarching goal of providing the response community with more efficient and effective information management options.

Speaker contact information:

Al Hielscher, Senior Systems Developer
Genwest Systems, Inc., Edmonds, WA

Washington Department of Ecology Spills Program data project

Conor Keeney, Washington Department of Ecology

Abstract:

The Ecology Spills Program is currently working on a project to provide program data to the response community and public using a web mapping application. Geographic response plan, spill response equipment, historical spill events, and other information are being prepared for inclusion in this project. An overview of the application will be presented.

Speaker biography:

Mr. Keeney worked for the Washington Department of Ecology Spills Program in the Response section from 2000-2003 and returned to the Preparedness section in 2011. He has a B.S. in Environmental Science from Western Washington University, a graduate certificate in Community Preparedness and Disaster Management from UNC Chapel Hill, and a graduate certificate in Geographic Information Systems from NC State.

Speaker contact information:

Conor Keeney, Washington Department of Ecology
Equipment Coordinator
E-mail: ckee461@ecy.wa.gov
Phone: (425) 649-7063

Determining seabird presence, abundance, and distribution in areas at risk for oil spills in the Salish Sea

Jerry Joyce, Moon Joyce Resources

Abstract:

The Puget Sound Seabird Survey is an ongoing broad-based study of wintering seabirds throughout most of Puget Sound and the Strait of Juan de Fuca, coordinated by Seattle Audubon. It is conducted nearly simultaneously at 115 sites throughout the area once a month from October to April. The survey collects detailed data used in sophisticated analyses, including abundance estimates using distance-sampling modeling and hotspot and distribution analysis using spatial occupancy models. The data can be used prior to a spill for planning and risk assessment, during a spill to assist in deployment of resources, and after a spill to assess natural resources damages. Expansion of the survey to cover the remaining US portion of the Salish Sea would provide additional valuable data on the abundance and distribution of seabirds in areas most at risk for spills. This program can also serve as a model for other citizen-science programs in regions where seabirds are at risk from oil spills.

Speaker biography:

Mr. Joyce is a marine biologist who has worked with NOAA, USFWS, IWC, and numerous fisheries agencies. He was on the Washington Oil Spill Advisory Council, and is currently on the PSP Oil Spill Workgroup, PSEMP Steering Committee, PSEMP Birds and Mammals Workgroup, and PSEMP Forage Fish Workgroup. He is also a member of the Seattle Audubon Science Committee and the Puget Sound Seabird Survey Steering Committee.

Speaker contact information:

Jerry Joyce, Moon Joyce Resources
Seattle, WA
E-mail: JerryJoyce@MoonJoyce.com

Mapping baseline oil pollution and tracking active oil breakouts in sensitive bays and estuaries

Jeff Wynn, U.S. Geological Survey

Abstract:

Oil on the ocean surface represents just the API > 10 gravity component of any crude oil spill or well blowout, and is readily identified and tracked by conventional remote sensing means. However, the API ≤ 10 components of the hydrocarbons are not easily assessed below the surface. We present a "new" technology called marine induced polarization (Marine IP) for quickly mapping these components through the water column to well below the seafloor. Moreover, the technology can actually characterize an evolving oil spill.

Speaker biography:

Jeff Wynn is a research geophysicist with the USGS with over 200 publications in geophysics, geology, oceanography, hydrology, astrophysics, and archeology.

Speaker Contact Information:

Jeff Wynn, US Geological Survey
Vancouver, WA, 98683
Phone: (360) 993-8919
E-mail: jwynn@usgs.gov

Expanding spill status awareness for the COP with aerial and satellite remote sensing

Dr. Jan Svejkovsky, Ocean Imaging Corp.

Abstract:

Ocean Imaging Corp. (OI) has been involved in the development of multispectral aerial imaging systems for oil spill mapping since 2005. Initially developed primarily for COP use, the system's objective was to map the spills' extent in very high detail and quantify the oil's thickness distributions using unique algorithms. The system was used operationally for COP support during several spills in California and was then utilized daily for 3 months during the Deepwater Horizon (DWH) spill in 2010. Data and thickness analyses were made available to the COP through NOAA's ERMA server and were utilized by a wide variety of response groups. This presentation outlines the technology's utilization in past spills, lessons learned, and new advancements since the DWH incident that will help further enhance the utilization of remote sensing for the COP in future spills.

Speaker biography:

Dr. Svejkovsky founded Ocean Imaging Corp. (OI) while in graduate school. Initially OI specialized in satellite data processing for fisheries applications, then expanded to satellite and aerial sensor imaging data collection and analysis for a wide range of coastal applications, including oil spill mapping. Recently, OI's spill mapping technology has won several federal and industry awards.

Speaker contact information:

Dr. Jan Svejkovsky, Ocean Imaging Corp.
E-mail: jan@oceani.com
Phone: (858) 792-8529

Development of the estimated recovery system potential (ERSP) calculator

Dean Dale, Genwest Systems, Inc. & Alan A. Allen, Spiltec

Abstract:

The ERSP calculator is an oil encounter rate planning tool that accounts for the major components affecting the recovery potential of an oil spill skimming system. Efforts are underway through which the current EDRC planning standard could be replaced with formulations developed in the ERSP calculator. Input parameters for the ERSP calculator will be presented showing how they contribute to a skimming system's overall recovery potential, while demonstrating ways to improve that potential.

Important parameter interactions and operational concepts will be addressed including a skimming system's maximum effective swath and the importance of onboard storage and decant capability. Various features of the calculator will be demonstrated,while graphical and tabular outputs will be used to illustrate the potential performance of representative recovery systems.

Speakers biographies:

Mr. Dale: B.S. Physical Oceanography, University of Washington. Mr. Dale has worked in oil spill and emergency response for over 30 years.

Mr. A. Allen: B.S. Physics & Math, M.S. Oceanography & Petroleum Engineering. Mr. Allen has been an oil spill specialist for over 45 years.

Speakers contact information:

Dean Dale, Senior Consultant, Genwest Systems, Inc.
E-mail: deand@genwest.com

Alan A. Allen, Oil Spill Specialist, Spiltec
E-mail: alan@spiltec.com

The tank barge DBL 152 response: lessons learned

Jim Elliot, T&T Salvage

Abstract:

On November 11, 2005, in the wake of Hurricane Rita, the tank barge DBL 152 struck a submerged offshore platform 30-miles south of Calcasieu, Louisiana. The DBL 152, carrying approximately 122,500 barrels of predominantly Group V oil, progressively sank, capsized, and created, at that time, the largest submerged oil spill in U.S. history. This presentation will address the Unified Command's response actions and multiple lessons learned regarding subsurface oil detection, sunken oil recovery, and national salvage capabilities. Advancements in submerged oil detection and recovery technologies and the implementation of national salvage regulations since the incident will also be discussed. Finally, conclusions and recommendations will be presented to further advance submerged oil detection and recovery efficiency and effectiveness.

Speaker biography:

Mr. Elliott is Vice President of T&T Salvage, responsible for managing worldwide marine salvage, commercial diving and pollution response operations. A former senior U.S. Coast Guard officer with over 25 years of experience in maritime response operations, Mr. Elliott holds a B.S. in Environmental Management and two Masters degrees in Environmental Policy and National Security.

Speaker contact information:

Jim Elliott, Vice President, T&T Salvage
Phone: (409) 692-4611
E-mail: jim.elliott@teichmangroup.com

Case study NESA R3: ship sinking and bitumen spill - Port Sultan Qaboos Sultanate of Oman, June 2013

Vince Mitchell, Lamor Corporation

Abstract:

On 19 June 2013 the 865 gross ton Nesa R3 sank approximately 1.4 nm off of Port Sultan Qaboos, Sultanate of Oman in 65 m of water. The vessel was carrying 840 tonnes bitumen as cargo, 5 tonnes of diesel bunkers. It is estimated in excess of 250 tonnes of cargo and bunkers were lost. This presentation will examine the response organization, tactics, and operations used by Lamor Middle East, one of the two response contractors called in by the government of Oman to assist in the cleanup.

Speaker biography:

Mr. Mitchell, Vice President of Special Projects with the Lamor Corporation, has a wide range of operational and technical oil spill expertise spanning over twenty five years. Previous working locations have ranged from the arctic conditions found in Alaska to the desert conditions of the Middle East. Vince also has extensive marine experience and currently holds a U.S. Masters license.

Speaker contact information:

Vince Mitchell, Lamor Corporation
E-mail: vince.mitchell@lamor.com
Phone: (425) 773-9983

Diver safety and production when dealing with submerged oils

David DeVilbiss, Global Diving and Salvage, Inc.

Abstract:

Removing submerged oil by diver has proven to be effective and safe. The tools and methods of oil removal by diver are discussed including hot tapping, heating, and pumping. Diving modes, logistics, safety, qualifications, and regulations are presented as they applied to successful removal operations conducted on the Kiroshima, Jacob Lukenbach, Princess Kathleen, Silver Tip Pipeline Spill, and General Zalinsky.

Speaker biography:

Mr. DeVilbiss began his salvage career as a salvage diver in Dutch Harbor, AK as a summer job whilst attending mechanical engineering school. He currently serves on the executive committee of the American Salvage Association, as Vice President of the Alaska Maritime Prevention and Response Network, and as Vice President of marine casualty response for Global Diving and Salvage, Inc.

Speaker contact information:

David DeVilbiss, Global Diving & Salvage
E-mail: ddevilbiss@gdiving.com
Phone: (206) 623-0621

Incorporating manned submersibles into submerged oil spill responses: detection and recovery strategies

Dave Usher & Bill Hazel, Marine Pollution Control

Abstract:

The dramatic increase in the transport and use of heavier oils in the United States, including the Alberta oil sands products and other heavy crude oils (i.e. Group V non-buoyant oils), has increased our risk of spills which exhibit the tendency to sink when introduced into water. In the past, spill response organizations have devised effective ways for locating and cleaning up submerged oil spills, but the awareness of an increased potential for a spill has led to a concerted effort to improve upon and standardize current response methods. Marine Pollution Control (MPC) has designed and field tested a detection and recovery system for submerged oil recovery which utilizes a manned submersible unit. The use of the manned submersible, which is able to maneuver above a submerged spill site without disturbing the bottom, also provides for a safer working environment for response technicians and direct human observations. Under a contract with the U.S. Coast Guard's Research and Development Center, MPC's manned submersible detection and recovery system design was successfully prototype tested at the OHMSETT facility, where trays of 140,000 Cst oil were first identified with subsurface sensors and then recovered using a suction based robotic intake. In this presentation, a view of the current and future potentials of the system will be provided, including video imagery of the process. In addition, MPC will be conducting a field demonstration of the manned submersible concept in concordance with the conference and invites attendees to witness the technology first hand.

Speakers biographies:

David Usher is the Chairman of the Marine Pollution Control Corporation, Founder and President of the International Spill Control Organization (ISCO), and Founder and Past President of Spill Control of America (SCAA). As an industry pioneer and founder of Marine Pollution Control (MPC), the first spill cleanup organization in the Great Lakes and one of the first in the United States, Usher has supervised the cleanup of numerous major and minor spills of oil and hazardous materials worldwide, including the response efforts for the Amoco Cadiz (1978), the Ixtoc I well blowout (1979), the M/V Jupiter (1991), the barge Morris Berman (1994), the Athos I (2005), and the APL Panama oil removal operations (Ensenada, Mexico - 2006). In 1991, he participated as a member of the International Maritime Organization's Interagency Assessment Team during the cleanup efforts mounted as a result of the oil spills from the Persian Gulf War. Mr. Usher was the lead Incident Commander during the MPC's response to the Exxon Valdez oil spill response in 1989. MPC was the key, single-source party responsible for the lightering of 40+ million gallons of crude oil from the grounded supertanker, and then participated in the extensive oil spill response operation that ensued from the casualty. The Exxon Valdez incident became the cornerstone event for the nation's oil spill response procedures and policies (i.e., the Oil Pollution Act of 1990), and Usher was a principle member of the negotiated rulemaking efforts that resulted in that legislation and resulting regulatory law. In 2014, he organized and conducted the ISCO International Forum on Group V (non-buoyant) Oil Response in Detroit, MI, where over the course of two days experts on the subject from around the world presented papers on the topic of submerged oil spill response.

Mr. Hazel is the Director of Marine Services at the Marine Pollution Control Corporation. Responsible for the oversight of the company's Marine Division activities including OSRO coordination, project planning and management, engineering and design of response equipment, and OPA'90/PREP compliance. Trainer for oil spill response operations, marine salvage operations (liquid cargo/fuel transfers), and facility response plan compliance. Principle Investigator during USCG Research and Development Center's (USCG RDC) multi-year project on submerged oil detection and recovery. OSRO Project Manager during USCG RDC multi-year project "Oil in Ice Equipment Demonstration", a 3-year program for investigating the potentials for response equipment and tactics suited for Arctic oil spill response operations.

Speakers contact information:

David Usher, Marine Pollution Control
Phone: (313) 849-2333
E-mail: dusher@marinepollutioncontrol.com

Bill Hazel, Marine Pollution Control
Phone: (313) 215-2863
E-mail: bhazel@marinepollutioncontrol.com

Aerial remote sensing for real-time tactical use during oil spills - MSRC remote sensing program

Dr. Jan Svejkovsky, Ocean Imaging Corp. & Steve Benz, MSRC

Dr. Svejkovsky's abstract:

Following its extensive utilization during the Deepwater Horizon spill, OI redesigned its aerial multispectral oil mapping system to provide wider field of view, faster data processing aboard the aircraft, and greater system portability. OI also established a collaborative relationship with Marine Spill Response Corp. (MSRC) for use of the systems, with MSRC's desire to also utilize them in real-time for tactical operations. As a result, OI developed novel software that allows processing of the imagery in near-real-time aboard the aircraft and, as the latest development, transmitting the processed images directly to vessels at sea. This presentation showcases the latest developed capabilities for tactical use of multispectral aerial imaging data.

Mr. Benz's abstract:

This presentation will cover the MSRC Remote Sensing Program. MSRC designed and implemented its remote sensing program to enhance its ability to effectively position our response assets during future spill responses. The presentation will also include lessons learned from MSRC's Deepwater Horizon experience and the tactical objectives that drove the selection of the various components of the MSRC Remote Sensing Program.

Speaker's biographies:

Dr. Svejkovsky is the founder of Ocean Imaging Corp., specializing in satellite and aerial sensor data collection and processing for analysis of a wide range of coastal applications, including oil spill mapping and fisheries. OI's spill mapping technology has won several federal and industry awards.

Mr. Benz is President and CEO of MSRC. Mr. Benz joined MSRC in 1996 after spending 16 years with BP in a variety of managerial and executive assignments. Mr. Benz graduated from Case Western Reserve University in 1973 with a degree in Chemical Engineering, and earned his Master's degree in Management Science from Standford University Business School as a Sloan Fellow in 1989.

Speaker contact information:

Dr. Jan Svejkovsky, Ocean Imaging Corp.
E-mail: jan@oceani.com
Phone: (858) 792-8529

Steve Benz, Marine Spill Response Corporation (MSRC)
E-mail: benz@msrc.org

Subsurface oil detection and mapping on shoreline, shallow water and inland spills

Ed Owens, Owens Coastal Consulting

Abstract:

An ongoing American Petroleum Institute (API) study on subsurface oil detection and delineation describes current best practices and has developed recommendations for improvement. Two recent response operations have applied innovative techniques (viewing box and snorkel surveys) to successfully detect and delineate shallow-water nearshore sunken oil. A current API study involves field trials to evaluate the capability of dog detection teams to locate and delineate shoreline and terrestrial subsurface oil. Although it has been proven on several occasions that dogs have this capability, the focus of the study is to evaluate how this technique can be appropriately integrated into a SCAT program.

Speaker biography:

Dr. Owens is President of Owens Coastal Consults (OCC) and has 45 years of experience in spill response and training worldwide. Recently he was the technical advisor to BP for shoreline response and the SCAT program in the Gulf of Mexico Macondo oil spill. Currently he is managing a series of API projects to improve best available technology for shoreline response.

Speaker contact information:

Dr. Ed Owens, Owens Coastal Consulting
Office: (206) 451-4818
E-mail: eowensocc@aol.com

Surveillance and reconnaissance - optimizing the use of Canada's assets to gain public confidence and interdepartmental recognition

Kim Pearce MSc., Environment Canada

Abstract:

Transport Canada keeps a watchful eye on waters under Canadian jurisdiction through its National Aerial Surveillance Program (NASP). What makes the NASP capability special in Canada, and across North America, is its integrated suite of remote sensing equipment. Initially this suite of sensors was acquired to monitor the shipping lanes in an effort to enforce the pollution prevention regulations; however, the scope of this program has expanded rapidly over the past few years. This has been evident during many National events where the NASP aircraft and crew were crucial in bringing the events to successful conclusions. These same technologies and crew proved to be very effective in support of the Deepwater Horizon response in 2010.

This presentation discusses Transport Canada's mandate, how the NASP has evolved over the years to optimize the use of TC Assets to Gain Public Confidence and Interdepartmental Recognition in Canada. It will also discuss improvements made to the aircraft since the response to the Deepwater Horizon and the intentions of Transport Canada for the future.

Speaker biography:

Ms. Pearce is a senior technologist and national trainer with Environment Canada's Marine Aerial Reconnaissance Team (MART) operating the remote sensors on board the aircraft of Canada's National Aerial Surveillance Program (NASP) since 2009.

Speaker contact information:

Kim Pearce MSc., Environment Canada, Marine Aerial Reconnaissance Team (MART)
Senior Technologist
5455G Airport Road South, Richmond, BC V7B 1B5
Office: (604) 666-3927

King County Sheriff air support capabilities during an oil spill

Deputy Hersh T. Hoaglan, King County Sheriffs

Abstract:

The purpose of the presentation is to provide an overview of the capabilities the King County Sheriff's Office Air Support Unit can provide to assist in the detection and containment of an oil spill. Topics will include the use of a color and thermal camera, augmented reality system (ARS) overlay to map and calculate the spill, and provide live video downlink to Incident Commanders for decision making.

Speaker biography:

Deputy Hoaglan has been with the King County Sheriff's Office since 2012 and has been in law enforcement for 14 years. Since 2013 he has been in the Air Support Unit of the Sheriff's Office and has been very involved in implementing new technologies that have recently come to market such as Churchill Navigation's ARS.

Speaker contact information:
Deputy Hersh T Hoaglan
E-mail: Hersh.Hoaglan@kingcounty.gov
Cell: (206) 423-6182

The future of remote sensing from a responders perspective

Mark Ploen, QualiTech Environmental

Abstract:

Recent advances in oil recovery capabilities, including increased speed skimming systems, can be further improved by incorporating remote sensing systems. The encounter rate is enhanced by expanding the view to a task force and facilitating more efficient vectoring of response vessels to productive skimming areas.

Deployment platforms vary from aerostats to small unmanned aerial surveillance carrying a range of sensor payloads. However, for the purpose of this discussion, we will focus on aerostat deployed sensor options and unique capabilities including long range wireless communication of live streaming video. Other points of discussion include utilizing these technologies for initial assessment of required resources and how this can enable responders to more effectively and efficiently respond. Having a systems approach to spill response which integrates best available technologies in both oil recovery and aerial surveillance helps to minimize risk to the environment and equips the responder for success.

Speaker Biography:

Mr. Ploen began his career in the oil spill response industry in the oilfields of Alaska's North Slope in 1982. Ten years later he founded QualiTech Environmental to serve the response community. QualiTech has participated in responses on every continent except Antarctica, and planning, prevention and response to oil spills in over 30 countries.

Speaker contact information:

Mark Ploen, QualiTech Environmental
318 Lake Hazeltine Drive, Chaska, MN 55318
Office: 952-448-5151 x286
Cell: 612-963-5222
E-mail: markp@qualitechco.com

Ecology was directed to create a volunteer coordination system to improve our readiness to respond in the event of a large spill. Our goal is to have a list of registered volunteers that are certified and trained to assist in emergency operations.

Before an oil spill occurs, register to be a volunteer and receive training and/or get involved with an existing volunteer organization in your community. Some environmental and response organizations have already registered with Ecology. Visit **oilspills101.wa.gov**, our educational portal for volunteer and training opportunities.

OilSpills101.wa.gov

Currently, there are three ways volunteers can assist: as a vessel of opportunity, with oiled wildlife, and in oil spill response activities. The vessel of opportunity program allows boat owners to volunteer their vessels for on-water response and logistics. Wildlife care personnel help rescue and rehabilitate oiled animals. Oil spill volunteers may be asked to do a number of administrative tasks, such as supporting response activities using specialized technical expertise.

After an oil spill, you can get involved in research, training, education, citizen science, assessment and documentation of baseline environmental conditions, oil spill assessment and reporting, Northwest Area Contingency Plan development, spatial planning, and long-term monitoring after recovery.

Trained volunteers are critical to the success of response efforts!

U.S. COAST GUARD
THIRTEENTH DISTRICT

DEPARTMENT OF
ECOLOGY
State of Washington