



## UNIVERSITY of NEW HAMPSHIRE

Submerged Oil Working Group  
14 November 2012 at Clean Gulf in New Orleans, LA

### Meeting Notes

#### Participants:

Nancy Kinner, CRRC/UNH  
Kurt Hansen, USCG R&D  
Chris Barker, NOAA  
Bill Lehr, NOAA

Charlie Henry (designee for Debbie Payton)  
(NOAA)  
Steve Buschang, TX GLO  
Matt Dean, Chevron  
Jill Rowe, ASA

#### Update Reports:

- **USCG R&D Center (Kurt Hansen)**
  - See attached paper – completed project “Heavy Oil Recovery, OHMSETT Test Report” June 2012
  - Overview of status of continuing projects:
    - Two of the systems (ROV-based and Crawler) were field tested in the Fall of 2012. There are pros/cons for the use of each of these tested products – all 3 systems can work in different environments or can be combined. Final report available summer 2013.
    - Oil in water columns, inland, droplets – building on efforts during Deepwater Horizon Response to work in rivers and coastal areas (reference ATHOS I spill in Delaware River).
    - 3 contracts were awarded for concept development in Fall 2011 to WET Labs with one system based on a multi-channel fluorometer combined with other sensors (e.g., dissolved oxygen) and one based on light-scattering sensor analysis also teamed with other sensors (particle size analyzer). Also awarded contract to NORBIT for sonar that was demonstrated at OHMSETT during Exxon dispersant testing in October, 2012. First year/design has been completed. Two of the contractors have been selected to develop prototypes. One of the WET Labs proposals, Wide-angle-scattering Inversion to Detect Oil in Water (WINDOW), is being designed to measure wide-angle scattering from various particles and build a library so that oil can be differentiated from sediment or other constituents. Two different sensors will be evaluated and then teamed with a LISST particle size analyzer and a conductivity, temperature Depth (CTD) sensor that provides salinity, etc. The NORBIT sonar is a wide-band multi-beam system is being used in the 200-440 kHz range. A three-dimensional picture can be obtained if two systems are mounted orthogonal to each other. For testing at OHMSETT a bottom mounted pipe with different size holes may be needed as well as dispersant runs in the Fall of 2013.
- **NOAA (Bill Lehr)**
  - University of Washington students (with small grant from NOAA) are writing report on “Transporting Alberta Oil Sands Products: Defining the Issues and Assessing the Risks”. Final report attached.

#### **Coastal Response Research Center**

Gregg Hall, 35 Colovos Road, Durham, New Hampshire 03824-3534  
Tel: 603-862-0832 fax: 603-862-3957 <http://www.crrc.unh.edu>

- IMO (group includes Canadian Coast Guard, etc) UK is nearing completion of comprehensive international guidelines which also includes R&D, not just operational. Currently under final review and edit, due April 2013.
  - ADIOS submerged oil well blowout and UW studies on droplet size distribution participated in Subsea Modeling workshop in Berkeley in October.
  - Incorporate risk assessment to clean and consequences of subsurface cleanup
  - Taylor Energy site (with Chris Reddy) detailed chemistry work and weathering; differences of weathering natural spill, so now have lots of data. Charlie will send Chris Reddy contact to Bill Lehr to add this data collection on this small, ongoing release.
  - ICCOPR is proposing an oil spill demonstration. This shallow well does not have pressure like deep blowout but droplet size under different pressure. Can make variables in a test.
- **Texas GLO (Steve Buschang)**
    - Texas A&M is building a new buoy monitoring water column movement.
  - **NOAA (Chris Barker)**
    - In early stages of restructuring GNOME & ADIOS. Intent is for better integration.
    - GNOME – 3D modeling for submerged and subsurface oil and plug other models into GNOME and ADIOS.
  - **CRRC (Nancy Kinner)**
    - Bruce Hollebhone project (from 2007 RFP) is finishing. Different types of oils and which factors cause sinking.
    - CSE is hosting an oil sands products workshop in Maine; funded jointly by EPA Reg 1 and ME DEP. Transportation issues through Maine have instigated this training. Speakers from Canada with experience on the Enbridge spill, etc.
  - **BSEE (per Nancy Kinner)**
    - Paul Panetti, ARA is doing a project on behavior of subsurface oil which was tested at OHMSETT and SINTEF. This is using sonar.
  - **Shell (Victoria Broje)** non-attendee but stated that they have a submerged oil project in conjunction with SL Ross in Canada.
  - SINTEF, Environment Canada, DFO, CEDRE – none of the entities have current research in submerged oil.

Discussion:

- We have several opportunities for sampling: Vessel, 3M gallons off Louisiana and DBL152. Why not go back and see if we can find any of that oil. Long-term fate. Can decide how much and status 1 year later. Learning about the fate of this oil will help decision-making in cleanup. Trade-off: will continuing to clean destroy more natural habitat than the oil has done.
- Jim Elliott is doing a paper on cleanup. Where did nearly 3M gallons from Barge do? Who is doing NRDA for this project? Charlie will follow up with Troy Baker.
- Kalamazoo spill – EPA will be collecting additional info and data

Next Submerged Oil Working Group Meeting: to be held in conjunction with Clean Gulf, 2013