

one ocean

Study Tour Report: What can One Ocean do to become more informed on oil spill prevention and response in Newfoundland and Labrador? Perspectives on Lessons Learned, Recommendations and Observations from the Fishing and Petroleum Industries in the Gulf on the *Deepwater Horizon* Incident

ONE OCEAN JOINT INDUSTRY DELEGATION STUDY TOUR TO THE GULF OF MEXICO OCTOBER 17-22, 2010

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Executive Summary

One Ocean was established in 2002 as the liaison organization for the fishing and petroleum industries in Newfoundland and Labrador, Canada. The liaison organization provides its members with a forum to enhance effective communication, mutual understanding of offshore operational activities and the opportunity to address concerns before they become problematic.

Following the tragic incident involving the *Deepwater Horizon* and oil spill in the Gulf of Mexico in April 2010, the provincial fishing and petroleum sectors recognized the importance of working together to address questions and concerns surrounding the incident. In September 2010, the One Ocean Board appointed members to a joint-industry delegation to travel to the Gulf of Mexico region to gain perspectives and information that would assist both industries in becoming more informed on oil spill prevention and response.

This report provides a detailed account of thirteen One Ocean joint-industry delegation meetings with fishing and petroleum representatives in the Gulf of Mexico in October 2010. Participants shared industry perspectives, community and individual viewpoints on roles, processes, practices, perceived impacts, uncertainties and challenges of the spill and response effort.

Direct interaction with industry representatives and the opportunity to visit coastal areas was a valuable learning experience for delegation members. Lessons learned, observations and recommendations outlined by meeting participants are highlighted throughout the report and are the basis of the delegation's key findings. In summary, they include:

1. The fishing industry played an important role in oil spill response;
2. The compensation process and procedure was not understood ;
3. The oil and gas industry did not have the infrastructure or equipment on hand for response;
4. The fishing industry was negatively impacted by the spill;
5. A medium for effective communication was lacking.

The One Ocean joint-industry delegation report will assist both industries in identifying next steps towards a collaborative and comprehensive approach on oil spill prevention and response in Newfoundland and Labrador.

About One Ocean

One Ocean is the liaison organization established by and for the fishing and petroleum industries of Newfoundland and Labrador in 2002. The organization is comprised of a Chairman, Secretariat and the One Ocean Industry Board – the Industry Board has equal membership representation from both industry sectors.

One Ocean provides a neutral and practical forum to enhance sustainable coexistence and facilitate communication, understanding, and cooperation.

One Ocean promotes continual learning and understanding of each industry sector's operational activities. An important component of operational activities is timing and location as offshore fishing and petroleum activity may overlap. Effective communication and joint planning will ensure both sectors are aware of proposed activities and provide the opportunity to identify and address specific industry concerns and develop mutually beneficial safe practices and protocols.

One Ocean does not represent the fishing and petroleum industries in Newfoundland and Labrador – it represents the mutual interests of both. To successfully accomplish this, One Ocean must maintain the confidence of both sectors in its ability to remain neutral and promote the interests of both sectors.

The One Ocean model is unique to the world. It is a proactive entity that enhances the opportunity for information dissemination and progressive joint initiatives for two industries operating in one ocean.

One Ocean is housed at the Fisheries and Marine Institute of Memorial University of Newfoundland.

Mandate

One Ocean shall be the medium for information exchange regarding industry operational activities between the fishing and petroleum industries in Newfoundland and Labrador, and as an informed entity, will initiate research and industry specific activities to meet industry challenges, as well as promote cooperation, transparency and information dissemination between these industry sectors.

One Ocean Joint Industry Delegation Study Tour – Gulf of Mexico

Background

Identifying and addressing mutual concerns for the fishing and petroleum industries in Newfoundland and Labrador is a major objective of One Ocean. In April 2010, the *Deepwater Horizon* drill rig suffered a blowout in the Gulf of Mexico (GoM) and tragically eleven crew members lost their lives. The rig sank leaving an uncapped well and a major offshore spill.

Concerns and questions about the incident were discussed by One Ocean industry Board members and the possibility and merits of a One Ocean delegation to the Gulf region were raised. Members of the Board recognized the importance of the Newfoundland and Labrador fishing and petroleum industries working together to build a collaborative and comprehensive approach to address mutual concerns. The Board tasked the One Ocean Working Group with developing a report outlining goals, objectives and prospective GoM fishing and petroleum meeting contacts. In September, 2010 the One Ocean Board approved a Joint Industry Delegation to travel to the Gulf of Mexico to meet with industry representatives and assist the liaison organization in identifying “What can One Ocean do to become more informed on oil spill prevention and response?”

Goal

The goal is to provide an opportunity for members of One Ocean to meet with representatives of the fishing and petroleum industries in the GoM that were involved and/or affected by the spill to determine if and how the perspectives and information gained from the meetings could assist both industries in working together to address concerns on oil spill prevention and response in Newfoundland and Labrador.

Objectives

1. To participate in a GoM delegation from the perspective of two industries recognizing the importance of working together to address concerns
2. Gain insight and perspective from the GoM fishing and petroleum industries on roles and interaction in spill response efforts
3. Learn about the challenges each industry has experienced, if and how they were resolved and ongoing concerns
4. Examine lessons learned, practices and processes from both industries in the GoM and determine if and how they could benefit One Ocean

Overview of Fishing Industry in the Gulf Region

- In 2006, three of the top six commercial fishing ports in the US (by landings) were located in the Gulf of Mexico region.
- 83% of the total US shrimp landings are landed in the Gulf of Mexico region which equate to 254 million pounds (average per year).
- 56% of total US oyster landings are landed in the Gulf of Mexico which equates to 32 million pounds (average per year).
- 14% of the total US commercial fishery landings are in the Gulf of Mexico region. Alaska accounts for 57% of all US landings.
- 1.3 billion pounds of commercial fishery landings equate to \$662 million in the Gulf of Mexico region per year (average).

Overview of Louisiana Oil and Gas Industry

- Louisiana is the nation's number one producer of crude oil and number two producer of natural gas.
- Roughly 33% of nation's domestically produced oil comes from the Gulf of Mexico, and 10% of the nation's natural gas.
- 80% of the Gulf's oil and 45% of its natural gas comes from operations in more than 1000 feet of water – the deepwater (2009 data).
- Louisiana ranks number two in petroleum refining capacity.
- There are over 83,000 miles of pipelines transporting crude petroleum and natural gas within the state and in its offshore area of the Gulf of Mexico.
- The Louisiana Oil and Gas Industry has a \$70 billion impact upon the state; generated over 12.7 billion in household earnings and supported 320,280 jobs in 2005.
- The industry pays \$1.4 billion in state taxes and fees and more than \$4 billion in wages.
- Each petroleum industry job supports 4.5 additional jobs in the state.

One Ocean Delegation – Gulf of Mexico

One Ocean Delegates

Members of the Joint Industry Delegation included:

Earle McCurdy, President, Fish, Food and Allied Workers (FFAW) union

Nelson Bussey, Fish Harvester, (FFAW)

Robyn Lee, Petroleum Industry Liaison, FFAW

Greg Janes, Team Lead – Environment, Emergency Response and Security, Suncor Energy

Barry Ramesar, Health, Environment and Safety Specialist, Chevron Canada Resources

Maureen Murphy Rustad, Director, One Ocean

Delegation Trip Overview

On October 16, One Ocean delegation members arrived in New Orleans, Louisiana – the base location for the trip. On October 17, the 6 delegates began a 6 day Study Tour in a mini-van that covered 957 miles, (1556km) spanned 3 states and included 13 meetings.

Gulf of Mexico Industry representatives received a One Ocean overview report prior to the meetings that provided information on:

- Background rationale for the Study Tour
- Goals and Objectives of the Study Tour
- Agenda items/questions for meetings
- Delegation member bios
- Organization Profiles for One Ocean, FFAW and Chevron Canada
- Overview of fishing and petroleum industries in Gulf of Mexico
- List of all Study Tour meeting contacts

At each meeting participants conducted round-table introductions and Delegation members provided background on One Ocean and the purpose of the Joint Industry Study Tour.

One Ocean Meeting Agenda

The following list details One Ocean meetings and contacts in the Gulf of Mexico:

1. BP Contract Coordinator of Vessel Coordination Response in Gulf of Mexico, Lamor Corporation
Sunday, October 17, 2010 New Orleans, Louisiana

2. Fish Harvesters that participated in the Vessel of Opportunity Program
Monday, October 18, 2010 Chauvin Louisiana
3. Louisiana Seafood Promotion and Marketing Board
Monday October 18, 2010 Kenner, Louisiana
4. Coastal Protection and Restoration Authority – Office of Coastal Activities
Monday October 18, 2010 New Orleans, Louisiana
5. Southern Shrimp Alliance (SSA)
Monday October 18, 2010 Raceland, Louisiana
6. LA 1 Coalition/Port Fourchon
Tuesday October 19, 2010 Port Fourchon, Louisiana
7. The Greater Lafourche Port Commission
Tuesday October 19, 2010 Port Fourchon, Louisiana
8. Representatives of the Town of Grand Isle, Louisiana
Tuesday October 19, 2010 Grand Isle, Louisiana
9. Louisiana Mid-Continent Oil and Gas Association
Wednesday, October 20, 2010 Baton Rouge, Louisiana
10. Louisiana Oil and Gas Association (LOGA)
Wednesday, October 20, 2010 Baton Rouge, Louisiana
11. Sea Grant-Louisiana State University
Wednesday, October 20, 2010 Metairie, Louisiana
12. Southern Shrimp Alliance-Organized Seafood Association of Alabama
Thursday, October 21, 2010 Bayou La Batre, Alabama
13. BP Incident Command Centre
Friday, October 22, 2010 New Orleans, Louisiana

Gulf of Mexico Industry Meetings

BP Contract Coordinator of Vessel Coordination Response in Gulf of Mexico, Lamor Corporation

Lamor is a leading provider of innovative oil spill response solutions with more than 50 years of experience in oil spill response technologies. The focus is on customized solutions for efficient response operations; Lamor masters the whole chain of oil spill response; design, product development, quality equipment manufacturing, commissioning and IMO recognized training, as well as preparing contingency plans and organizing full scale oil spill response operations. Sales offices and agent network cover the globe and production facilities are located in Europe, America and Asia. Lamor is committed to finding new solutions to protect the environment from oil spills and to lead the way in finding smart solutions to pollution.

Our first meeting was with the BP contract Coordinator of Vessel Coordination Response, Lamor Corporation. Lamor was contracted by BP through O'Brien's Response Management to coordinate the vessel response program in the Gulf. The Coordinator worked in Mississippi at the incident Command Centre in Houma, Louisiana and had done similar work during the *Exxon Valdez* spill in Alaska.

Key Meeting Points

- Effective spill response entailed having “a lot of tools in the toolbox” and the level of preparedness is determined on the amount of money industry is willing to invest.
- Contract work for BP began on April 24, 2010.
- A fishing vessel databases did not exist. This made the process of identifying and contacting enterprises difficult, cumbersome and time consuming.
- BP's Vessels of Opportunity program consisted of:
 - » Compiling a list of vessels; not all vessels that applied to the program were selected
 - » Selection of vessels was based on type, HP, length, draft and outriggers; many vessels did not have inspection certificates as they were not mandated in the Gulf region
 - » Taskforce for Vessels of Opportunity was comprised of 125 vessels from six to twenty meters
- Response training for the Vessels of Opportunity program began on April 30, 2010.
 - » A four-hour response training course was delivered (certified by the International Maritime Organization) to over 1000 Captain and crew participants.

- » The course covered fate behaviour and characteristics of oil, use of skimmers, deployment of boom and health and safety awareness.
- » BP incorporated heat management (temperatures at the time of the spill reached over 100 degrees Fahrenheit) and safety liability into the training program.
- » Participants did not receive on-water training.
- Vessel of Opportunity contracts were based on the Alaskan model.
 - » Contract stipulated that vessels pass a safety inspection.
 - » Shift duration was twelve hours with a 20 minute on–40 minute off time because of high temperatures
 - » Payment was based on vessel length.
- Response vessels were on the water the first week of May.
- Main job on the water was skimming.
- There seemed to be a misconception regarding the dispersant program.
 - » Many fishers stated that spraying was conducted during the night.
 - » The Coordinator informed the delegation that spraying was not conducted at night nor within a 50-80 mile radius of vessels on the water.

Recommendations – Lessons Learned

As part of a response plan, industry needs to:

- Pre-identify vessels and maintain a database of vessels for near-shore and offshore operations
- Develop a compatibility system for booms and fishing vessels so a plan is not dependent on the capacity (HP) of a vessel to deploy bloom
- Train responders with an on-water component as classroom training does not transfer to at-sea situations
- Maintain the training level with refreshment courses and practices once a year
- Have a contract model in place for enterprises participating in spill response; a spill is not the time to negotiate a contract

Louisiana Fish Harvesters that Participated in the Vessel of Opportunity Program

Key Meeting Points

- The delegation met with two members of a family owned fishing enterprise that participated in the response effort. They stated:
 - » They learned of the spill on television

- » They are familiar with the oil and gas industry and stated that everyone in the community had a father or grandfather who worked in the oil and gas industry at some point
 - » Because of the history and connection with the oil and gas industry they were sure there was a response plan in place in Louisiana and the Gulf region
 - » At the time of the spill, they and other local harvesters were fishing brown shrimp; this species generates a major part of their annual revenue
 - » They fish about 50 miles offshore in Barrataria Bay; water depth is about 300 feet, the usual depth for shrimp harvesting
- Barrataria Bay is a prime shrimp fishing area in south-eastern Louisiana and borders Jefferson and Plaquemines parishes (communities). The bay/inlet is approximately 21km long and 19km wide.
-
- Licenses, up to State waters (3 miles) can be bought for \$475; outside the 3 miles is limited entry with a different type of license.
 - They stated that Barrataria Bay suffered a lot of damage as a result of the spill.

Involvement in the Vessels of Opportunity Program

- The Fish Harvesters were contacted by the Vessel Response Coordinator on April 23, 2010.
- The Vessel Response Coordinator and the Fish Harvesters worked together to develop a process for deploying boom from a shrimp vessel.
- This fishing enterprise started on-water response on April 30, 2010.
- The Fish Harvesters had confidence in the Vessel Response Coordinator's ability to deliver the four-hour Oil Spill Response (OSR) training and Vessels of Opportunity program but remarked that the process became problematic and political when BP personnel became involved. The Fish Harvesters felt BP should have brought in personnel from O'Brien's Response Management and not BP.

The Fish Harvesters highlighted the following problems with the program:

- The first responders were not equipped with fuel or groceries as many did not have the financial ability to purchase and they were not provided with Personal Protective Equipment (PPE).
- Coordination was disjointed and many vessels worked independently versus collaboratively within the Task Force.
- Logistics for refueling and food supply for vessels was problematic. Many vessels had to come back to dock to refuel but eventually a barge was set up for refueling at-sea. BP did set up a supply of food for vessels, however much was wasted as there was not sufficient refrigeration and freezer capability at loading sites.
- Out-of-state contractors came into Louisiana and worked in Task Forces. Responders from other parishes were hired to work in their area and it created resentment as many of the outside recruiters had never been on a vessel.
- Many vessel participants resented the pay rate system. Responders were paid according to the length of their vessels and it would have been better to pay each member of the task force the same rate regardless of vessel size.
- Responders felt there was a constant threat of being fired and as a result many took risks to get the job done as they did not have employment alternatives; many shrimp areas were closed and the local and global perception of fish taint was an issue.
- They were not trained in heat management and did not know about the 20 minute on–40 minute off requirement to avoid heat exhaustion.
- There was a lot of confusion about the status of the contract regarding off-hire; responders did not receive a letter or a call to say they were finished but the contract did stipulate they could not fish while under contract with the Vessel of Opportunity program.

Dispersants

- The Task Force should have been used to clean up more surface oil and this would have reduced the amount of dispersant used.

Compensation

- At the time of the spill, the decision they and many harvesters had to make was whether to work for BP or go fishing as the spill occurred at the height of the brown shrimp season.
- The Compensation program is confusing and unfair.
- These Fish Harvesters had not been paid as of the meeting time and were in the process of decontaminating and repairing vessels after 5 months of at-sea response.

Recommendations, Observations and Lessons Learned:

Louisiana Fish Harvesters

- The Fish Harvesters realized the importance of the oil and gas industry in the Gulf of Mexico but noted that the fishing industry should be the first priority.
- Newfoundland and Labrador was a step ahead because they have One Ocean. At the time of the spill, communication between the fishing industry and BP was non-existent and added that over the five month response it was more miscommunication than effective communication.
- The ability of the FFAW to represent harvesters' interests as a united group is a major advantage compared to the disjoint and number of fishery groups in Louisiana and the Gulf region.
- The major lesson learned is to be prepared as a fishing industry and not assume the oil and gas industry has a response/compensation plan in place that will assist the fishing industry.
- There is a need for oil spill response training in the Gulf of Mexico including the Hazardous Waste Operations and Emergency Response¹ (HAZWOPER) component
- Refresher courses with on-water practice must become part of the oil spill response training program.
- Ensure the use of a local workforce (fish harvester's) in the event of a spill. If locals are not retained, it must be explained as resentment among local responders and out of state/parish responders created major conflict.

Louisiana Seafood Promotion & Marketing Board

In 1984, the State of Louisiana created the Louisiana Seafood Promotion & Marketing Board to support their vast historical commercial fisheries industry. Although seafood had grown from a subsistence economy to a world class operation, it was challenged by dramatic changes in the marketplace and in the environment.

The commodities board was mandated to strengthen and revitalize the Louisiana seafood industry, to identify threats and execute strategic plans to meet them head on and overcome them. The Board is composed of 15 members appointed by the Governor. And each represents a sector of the industry: harvesters, processors/wholesalers, restaurateurs/retailers, fisheries resource managers, public health officers, and marketing specialists.

The Board's operating budget is derived from license sales to Louisiana commercial fishermen and seafood wholesalers/retailers, as well as state and federal grants.

¹ Hazardous Waste Operations and Emergency Response refers to five types of hazardous waste operations conducted under OSHA Standard 1910.120.

Key Meeting Points

- The Louisiana Seafood Promotion & Marketing Board (Marketing Board) informed the One Ocean delegation that it had recently met with the New Brunswick department of fisheries to discuss the effects of the spill on the seafood industry.
- Since the spill, a major challenge of the seafood industry has been public perception of tainted product. The Marketing Board stated that the media played a major role; some good reporting and some very damaging reporting. During the first two weeks of the spill the Marketing Board conducted up to 30 interviews a day.
- Members stated that the use of dispersants would have a minimal impact on seafood and the media caused more damage than the dispersants.
- The Marketing Board has been assessing the Food and Drug Administration (FDA) protocols, procedures and practices on seafood testing. Representatives at the meeting told us that the results of taint tests on fish were not released to the public and they felt it was very important for this information to be communicated at a public level.
- Members of the Marketing Board want testing conducted on seafood to form baseline data for future analyses.
- Members of the Marketing Board agreed that one of the challenges facing the seafood industry is continuity of supply. They told the delegation that after Hurricane Katrina, the total number of harvesters went from 16,000 to 12,000 and they expected to lose more as a result of the spill.
- The Marketing Board explained that a proposal was submitted to BP called “Back to Dock” requesting BP to pay fish harvesters 30% above the average price of fish if they went back to work but a deal was not reached.
- Members stated that fishermen were receiving cheques from BP 3 1/2 weeks after the spill. Members also said the process was far from perfect; some claimants received more money in 3 months than they had during a season of fishing and others did not receive enough to cover losses.
- Another challenge will be the transition of getting fish harvesters back to work and they would be focusing on a plan to motivate harvesters.
- They are also developing a plan for a Louisiana seafood certification program. Members feel this would expedite the “trust and safety issues” with buyers and consumers and get the industry back on track.
- When the marketing Board approached BP for funding to finance a marketing and promotion program for Louisiana seafood, BP offered them a million dollars. The Marketing Board eventually received \$2 million and were negotiating (October, 2010) a commitment from BP for \$30 million over the next three years².

² On November 1, 2010 BP allocated \$30 million over a three-year period – \$10 million a year – to the Louisiana Wildlife and Fisheries Foundation for the marketing of Louisiana gulf seafood. The Seafood Promotion and Marketing Board will

- A percentage of its operating budget is allocated to its Oyster and Shrimp Task Forces. Task Forces conduct specie specific Research and Development, Education and Training programs.
- Marketing Board members commented that the seafood community is interested in resources above the seabed and the oil and gas industry is interested in resources below the seabed and both industries are willing to work together to get to those resources.
- Members stated that the One Ocean model is a major advantage for the fishing and petroleum industries.

Recommendations, Observations and Lessons Learned:

Marketing Board

- The Marketing Board stated that the spill was a tragic incident in many ways and that the oil and gas industry had already begun to implement improvements, citing the \$1 billion initiative of Chevron, ConocoPhillips, ExxonMobil, Shell and BP to build a new Marine Well Containment System, (MWCS) to ensure safe drilling operations in the Gulf of Mexico.

Coastal Activities Coastal Protection and Restoration Authority (CPRA) – Coastal Activities

The mission of the Governor’s Office of Coastal Activities is to provide leadership and support to the CPRA and to direct and coordinate the development and implementation of policies, plans and programs, which encourage multiple use of the coastal zone and achieve a proper balance between development and conservation, restoration, creation and nourishment of coastal resources.

Key Meeting Points

- A representative from the Office of Coastal Activities provided the delegation with an overview of coastal Louisiana and facts about the fishing and petroleum industries:
 - » Coasts are very different in Louisiana and very few are accessible by vehicle.



manage the fund. The fund and the three-year commitment would be reset upon any oiling that would trigger the closure of fishing areas.

- » Five of the top fifteen national tonnage ports are in Louisiana.
- » Louisiana is the top producer of offshore oil and gas and the top producer of offshore revenues for US Treasury.
- » Louisiana is the top producer of fisheries in the Lower 48 and the nation's top producer of blue crab, oysters and crawfish.
- » State estuaries provide nursery areas for 98% of the species in Gulf of Mexico.

The Spill

- The representative stated that BP was completely overwhelmed and did not have a response plan in place for coastal areas and BP and the Coast Guard did not have the experience to deal with the incident.
- After Hurricane Katrina, CPRA formed a Board of 20 people representing varied coastal interests to coordinate and develop a master plan for coastal resource management, *Louisiana's Comprehensive Master Plan for a Sustainable Coast, 2007*.
- CPRA and the Office of Coastal Activities knew the sensitive areas and wanted to review the boom deployment plan for Louisiana. Mississippi had a website outlining stages and locations for boom.
- CPRA waited 12 days and felt they were getting "the runaround" so they pulled the parishes together and developed an on-shore/near-shore "Plan".
- CPRA became aware of the major shortage of boom and requested availability alerts which they forwarded to BP as BP was responsible for boom acquisition; BP did not always process the requests.
- As boom became available, priority areas were established based on potential impacts, daily oil projection reports and radius of rookeries, spawning and choke areas. The Plan filled a major void and CPRA allocated GPS coordinates on every inch of boom and was able to track it.
- Because the spill was continuous; a new spill every day, it posed many challenges. Skimmers did not have the capability to deal with the amount of oil in coastal areas so response efforts became innovative; the example given was the use of port-a-potty vacuum trucks on barges to draw oil and supplement the use of skimmers. The coordination of response efforts by BP, Coast Guard and local parishes was not functional or cohesive.

Dispersants

- CPRA has concerns on the 1.8 million gallons of dispersants used and requested content information of the formula when it was first used; CPRA got a response two months into the spill.

Recommendations, Observations and Lessons Learned:

CPRA

- CRPA will work with Natural Resources Damage Assessment (NRDA) to develop a remediation plan. *Louisiana's Comprehensive Master Plan for a Sustainable Coast*, had previously outlined the challenge of dealing with up to 80 miles of lost coastline each year and recovery from the spill will exacerbate the existing challenge.
- The government is asking BP to make a down payment on their liability which will be governed by 5 Gulf State and 2 federal trustees
- Confidence in boom capability and its efficacy in oil recovery is questionable.

Southern Shrimp Alliance

The Southern Shrimp Alliance is a non-profit alliance of the shrimp industry and serves as the national voice for the shrimp fishermen and processors in Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Texas. The group is committed to preventing the continued deterioration of America's domestic shrimp industry and to ensuring the industry's future viability. Each state in the SSA has two Board members



Key Meeting Points

Members of the SSA, Louisiana

- Parish members had formed a committee to discuss the spill.
- At a recent meeting, representatives from BP informed the committee that they would be bringing members of the VOO program back on call to bring scientists out to different sites.
- The group told us that there was not enough advertising for Gulf seafood and that the price of shrimp before the spill was \$3.30–\$4.00 pound and now it was \$1.25.
- Members stated that both the fishing and petroleum industries were very important to the region economically and also contributed to traditions and heritage.

- The group is concerned about the long-term effects of the spill and stated that it took more than three years for the fishery to recover in Alaska.
- There seemed to be a belief that the oil had settled on the seafloor and members were worried that it would resurface in the future.
- Fish harvesters said they would definitely go back fishing.

Key Meeting Points:

Fish Harvester that participated in the Vessel of Opportunity Program

- The Fish Harvester informed the delegation that he had been fishing since he was 14 years old.
- The Fish Harvester had more questions than answers about the VOO program and the spill response effort in general.
- BP brought in out-of-state contractors without any explanation and this was unfair to locals.
- The Fish Harvester felt ignored when reporting oil sightings. Responders were not allowed to clean up oil in any area unless specifically directed and if responders were caught using *Dawn* liquid detergent they would be fined \$10,000.

Compensation

- There were different pay rate systems for fish harvesters; vessel owners/captains received \$5000 a month however crew members received \$2500. BP dispensed the funding in May, June and July and then an independent (Feinberg) was appointed by the government to deal with compensation claims.
- Feinberg had no idea about the fishery or the claimants, stating that before the spill there were 600 harvesters in the area and after the spill there were 3800.
- The Fish Harvester was worried about claiming a lump sum as that would mean a sign-off on any future liabilities and what would happen if the oil reappeared?

Dispersants

- Fish Harvester was unsure of the dispersant formula.
- Fish harvester's were not given any information or alerts on when or where dispersants were being used. People were getting sick.

Louisiana Highway A 1 Coalition (LA1)

The delegation held a joint meeting with LA1 and the Greater Lafourche Port Commission on October 19 in Port Fourchon. Three weeks before our arrival, the meeting room we used was the Incident Command Centre C4; Command, Control, Communication Collaboration for the spill.

The delegation toured the 1300 acre facility that houses over 250 companies operating at the Port. Although an industrial area, the delegation remarked on the abundant marshland and wildlife. The Port Commission established a National Estuary Program and the majority of the marshland was “planted” by the Commission

with the help of local community volunteers. Within the vast industrial port we stopped at a commercial fishing marina and saw many recreational boaters on the water.

We drove out to the local beach where clean-up efforts were active and saw teams of shoreline workers being transported in golf carts. Not far from the beach area we saw several “Lafourche” flamingos and locals castings nets from the beach to catch shrimp.

Overview of LA 1 Coalition

- This highway is the only means of land access to Port Fourchon, LOOP and Louisiana’s only inhabited barrier island – Grand Isle.
- It provides the only means of evacuation for approximately 35,000 people, including 6,000 offshore shore workers.
- LA 1 is the only means of land access for oil spill response for Port Fourchon and LOOP.
- LA 1 is the boundary between the nation’s two most productive estuary basins for Gulf seafood – Barataria and Terrebonne. It is estimated that 70% of the state’s total value for commercial landings is derived from the Barataria and Terrebonne systems.
- A decrease in oil and gas activity and resulting traffic at Port Fourchon would mean a significant loss of tolls on LA Highway. Tolls go directly to retiring the bond debt for construction of LA Highway 1 improvements, and if those tolls are lost, the state of Louisiana – as the other responsible party on the bonds – will have to pay to retire that debt, meaning loss of funding for some other programs in the state’s budget.

Overview of Port Fourchon

- Located in southern Lafourche Parish, Port Fourchon is Louisiana’s only port on the Gulf of Mexico, and has become the focal point of deep-water oil and gas activities in the Gulf due to its strategic Central Gulf location.
- It is the lead intermodal facility in the U.S. servicing the energy industry.

- Port Fourchon is a supply base for oil rigs and production platforms in the central Gulf of Mexico. Supply boats and tugboats servicing these rigs and platforms operate out of Port Fourchon and many of the mobile rigs are come into the port for maintenance and repair.
- Port Fourchon currently services half of the drilling rigs operating in the Gulf of Mexico and over 75% of the Gulf of Mexico deepwater oil production. It is projected Port Fourchon will service 44% of pending future deepwater plans and 58% of all off-shore drilling in the Central Gulf over the next 30 years.
- Of the over 165 current and pending deepwater projects that have been identified to date, over 50% are using or plan to use Port Fourchon as its service base.
- In addition to its huge domestic hydrocarbon significance, Port Fourchon is land base for Louisiana Offshore Oil Port (LOOP) which handles 14% of nation's foreign oil and is connected to 50% of U.S. refining capacity.
- Port Fourchon plays a strategic role in furnishing this country with 15–18% of its entire oil supply. More than 270 large supply vessels traverse the port's channels each day.
- Approximately 20 million tons of cargo underwent intermodal transfer at Port Fourchon in 2004, a 10% increase above 2003.
- Recent truck traffic studies have shown that over 1,200 trucks per day travel in and out of Port Fourchon, along two-lane highway LA 1.
- 650 million barrels of crude oil are transported via 83,000 miles of pipelines through the port.
- 15,000 people per month are flown to offshore locations from Port Fourchon.

The Greater Lafourche Port Commission

- The Greater Lafourche Port Commission, a political subdivision of the state of Louisiana, facilitates the economic growth of the communities in which it operates by maximizing the flow of trade and commerce.
- The Commission was established by the state of Louisiana in 1960 and exercises jurisdiction over an area of Lafourche Parish south of



the Intracoastal Waterway, including Port Fourchon and the South Lafourche Leonard Miller, Jr. Airport.

- The Commission has targeted Port Fourchon for growth and development of port facilities because of its ideal geographic location on the Gulf Coast.
- Fourchon's primary service market is domestic deepwater oil and gas exploration, drilling, and production in the Gulf of Mexico.
- Port Fourchon is comprised of 1300 developed acres that house state-of-the-art service facilities. The Northern Expansion project is underway and upon completion will more than double the port's size to accommodate the industry's growing needs.
- In addition to developing Fourchon, the Commission has expanded the services of the South Lafourche Leonard Miller, Jr. Airport since acquiring it in November 2001. This general aviation airport sits on 359 acres in Galliano, Louisiana, and is surrounded by 1,200 acres of commission-owned property slated for industrial development. Its close proximity to Fourchon makes it the airport of choice for both business and recreational travel to South Louisiana. Search and Rescue (SAR) aircraft is also housed at the airport.
- The airport has had over \$22 million of improvements to make it more accessible to a variety of users from single-engine aircraft to twenty-passenger business jets.

Key Meeting Points

- In the three weeks after the spill, Port Fourchon estimated its national economic impact as \$9.9 billion in sales loss, \$2.9 billion loss in household earnings and 7,440 jobs lost nationally.
- Incident Command/ EOC was established at the Port's Operations Center.
- Companies based in Port Fourchon built and serviced *Deepwater Horizon* oil spill containment devices and relief wells.
- One of the five breaches along Fourchon Beach had direct flow into the marshes. These breaches needed to be closed before oil began washing ashore.
- Logging helicopters were used to deploy boom – not successful
- Containment domes were built – not successful
- National Guardsmen loaded sand bags onto Blackhawk helicopters to be dropped into breaches along Fourchon Beach to protecting fragile marshes from potential oil encroachment – not successful
- Six-foot PVC pipe was made into bulkheads along the shoreline – this worked
- Over 1000 workers were brought in to clean up the oil.

Mayor's Office Grand Isle, Louisiana

Representative from the town of Grand Isle and a Fish Enterprise Owner

After the meetings at Port Fourchon, the delegation continued south on LA1 to Grand Isle, the only inhabited barrier island, (20.2 km²) in Louisiana. Grand Isle has been repeatedly pummeled by hurricanes through its history. On average, the island has been affected by tropical storms or hurricanes every 3 years since 1877, with direct hurricane hits every 8 years including Katrina, Rita and Gustav.

There are approximately 1,500 residents on the island; however during the summer months that number peaks to 12,000 with an influx of tourists. Tourism is an economic mainstay for Grand Isle.



Key Meeting Points

- The town of Grand Isle waited 2 weeks for answers and spill response action from BP and various levels of government. There was no liaison designated to communities or the fishing industry, therefore no communication and no decisions made. Representatives went to the Incident Command Centre in Houma, Louisiana demanding answers for the fishermen of Grand Isle.
- When President Obama was scheduled to visit Grand Isle, response efforts increased; 4500 responders moved into Grand Isle and it was disastrous as none of them were screened, many were “criminals” and sent back.
- After the President’s visit, the Governor’s of Louisiana, Mississippi and Alabama met to discuss the region’s ‘Ground Zero’ and a process began with BP to put a plan in place.
- BP appointed a communication liaison to Grand Isle and this was instrumental in moving the process forward.

The Spill and the Fishing Industry

- Grand Isle used to have 8 shrimp docks—after Katrina it had 5 and now it has 1.
- The Enterprise owner gave an overview of the fishing industry stating:
 - » There are approximately 5000 full-time fishers in Louisiana and about 200 are from Grand Isle.
 - » 1,408 harvesters sold brown shrimp to his company last year.
 - » The Enterprise owner's dock and facility is worth \$6 million. It is not possible to process fish on Grand Isle so it is shipped out on trucks. The Enterprise owner deals with 20 different processors and the facility can offload ½ million pounds in 24 hours.
 - » This was the summer everyone in the fishing industry would have made money. Louisiana had a cold, late, winter; perfect condition for shrimp and 18-20 million pounds was the catch forecasted for the 2010 season. Price of shrimp on April 18, 2010 was the same as 2001, one of the best years for shrimping.
- All fishing vessels in Grand Isle were part of the Vessels of Opportunity program but because planning and logistics were erratic the containment effort did not go well.
- The Enterprise owner stated that too much dispersant was used.
- The Enterprise owner stated that the compensation program is complicated and unfair but he would be filing his claim shortly.

Recommendations, Observations and Lessons Learned

- Louisiana needs to promote its markets, stating that it was the most tested seafood in the world.
- The Enterprise owner said he would be interested to learn if dispersants will have an impact on the reproductive capacity of shrimp.

Louisiana Mid-Continent Oil and Gas Association

The Louisiana Mid-Continent Oil and Gas Association is the oldest trade association in the state exclusively representing all sectors of the oil and gas industry operating in Louisiana and the Gulf of Mexico, including exploration and production, refining, transportation and marketing.

The delegation drove to Baton Rouge, Louisiana on Wednesday morning October 20, 2010 to meet with representatives of The Louisiana Mid-Continent Oil and Gas Association, (Association).

Key Meeting Points

- Association representatives pointed out the similarities between Louisiana and Newfoundland and Labrador regarding the fishing and petroleum industries and felt that we would understand the impacts of a deepwater drilling moratorium as we had experienced a cod moratorium in NL.
- It was common for Louisianan's to complete a 14 day shift on an oil rig and then come back and fish during off-time.
- The Association provided some background on Gulf of Mexico activity: approximately 70 operators; 5000 structures; 70 companies drilling before the spill-half of those in shallow water and approximately 14 currently drilling (shallow water).
- At the time of the spill, the Association said its biggest challenge was to defend the industry but not be seen as defending the spill (BP).
- BP is a member of the Association.
- The members stated that in general the oil and gas industry has concerns about the BP spill, however industry offered full assistance-Shell turned over its Operation Centre in Robert, Louisiana to BP to set up its Command Centre as BP did not have a base in Louisiana.
- The Association did a national awareness program to educate public and government on the oil and gas industry- explaining what a Blowout Preventer (BOP) is, operational activities such as deepwater drilling and safety record- 42,000 wells had been drilled in the Gulf of Mexico and this was the first incident.
- The Association explained that a major issue was chain of command. The federal government let BP take control of the situation; *Oil Pollution Act* clearly states that if Incident Command is not followed, BP would not be liable.
- There was a strong disconnect between who was and who should have been calling the shots. Demand for action by parishes in the Gulf prompted local and state politicians to get involved. Many areas conducted response independently of BP and Coast Guard, The Association said that another problem was that BP could not do anything without Coast Guard approval and this took a lot of time. The public did not know who was leading the response effort and therefore confidence was very low and agitation very high.
- The primary response organization was Clean Gulf Associates. The Association informed the delegation that formal arrangements between the response organization and operators were not in place like the practice followed in Canada. They said industry was not prepared to deal with this spill but that this spill is unprecedented.

- They also stated that the response organization did have equipment but certainly not enough and that the equipment, including booms had not been updated and was not effective.
- Another response challenge was the location of the equipment. Much of it was located inland and getting it to the coast was time consuming and difficult as infrastructure was limited.
- The Association said that because of the air and water temperatures, much of the oil evaporated when it hit the surface and felt that offshore controlled burning worked well.
- The Association stated that the vessels of opportunity program came on late in the game. They said that the fish harvesters were ready, willing and able to respond as the potential negative impacts of the spill would deeply affect their industry.

Compensation

- The Association informed the delegation that they were aware of problems associated with the compensation program for the spill. The Association stated that 65% of Louisiana fishing areas were open but harvesters could not sell their product based on questions and perception surrounding safety and quality issues.

Dispersants

- The Association said that approval for the use of surface dispersant was in place before the spill. Subsurface dispersant was approved by the Environmental Protection Agency, (EPA) during the spill. Members of the Association did not speculate on potential impacts of dispersants but did say that newspapers and CNN had reported, (October 20, 2010) no traces of hydrocarbon or toxins in tested seafood.

Recommendations, Observations and Lessons Learned:

(The Association)

- The Association stated that the response is still ongoing and it would probably be in effect for several years (5). As an industry, the Association will be getting ready for the fiscal session of the legislative assembly next year as issues such as taxes, oil spill liability and inspections will be addressed.
- Some companies had begun selling their assets in the Gulf and if government raised the insurance liability limit too high many of the independents and smaller companies would be forced out and it would affect larger companies as well. The current liability for the responsible party is \$75 million and there is 'talk' of the number going as high as \$10 billion, based on government's development of a 'worst case scenario' policy.

- The Association said they expected the litigation process between the parties involved in the spill incident would take some time.
- The Association commented on the One Ocean model and stated that a similar inter-group organization would be beneficial for the fishing and petroleum industries, especially in terms of communication.
- The Association stated that it will be looking into a program to train fish harvesters, screen boats and a database for the information.
- The Association also stated that it would be looking into the creation of a new response organization and formalized sharing arrangements for equipment in emergency situations.

Louisiana Oil and Gas Association (LOGA)

LOGA was organized in 1992 to represent the Independent and service sectors of the oil and gas industry in Louisiana; this representation includes exploration, production and oilfield services. LOGA's primary goal is to provide our industry with a working environment that will enhance the industry. LOGA services its membership by creating incentives for Louisiana's oil & gas industry,



warding off tax increases, changing existing burdensome regulations, and educating the public and government of the importance of the oil and gas industry in the state of Louisiana.

Key Meeting Points

- LOGA represents independent oil and gas companies; BP is not a member.
- LOGA stated that 60% of the Gulf leases were for deepwater and 71% of the leases were held by independents. 40% of Gulf production comes from independents and 95% is from shallow water leases owned by independents. As large, integrated oil companies move out, independents purchase the assets.

The Spill

- LOGA stated that the spill was tragic and unprecedented and that the media exacerbated the situation and perception of the oil and gas industry by focusing on “rock

stars and politically motivated people”. Facts like natural seepage were not covered; approximately 20 million gallons of oil naturally seeps into the Gulf of Mexico every year.

- The Louisiana President of the Sierra Club logged over 900 miles on the Louisiana coast and collected a quart of oil.
- LOGA said that a lot of companies were very upset with BP as it is obvious that something was missed in the engineering design and plan for the well but did say that BP’s response and engineering efforts to cap the well and drill a relief well were amazing.
- LOGA stated that one of the problems in the response effort was communication.

Moratorium

- LOGA stated that the response of regulatory agencies and government in declaring a moratorium was a major problem for industry as independents don’t have capability to absorb lack of activity in the Gulf of Mexico.
- The imposed moratorium resulting from the *Deepwater Horizon* incident was an “overreaction” that was filtering into and impacting shallow water operations.
- LOGA said that regulatory uncertainty is causing problems and if the government increases the cap on oil companies’ liability for oil spill damages it “will cripple independents in shallow water”.
- In response to the moratorium, LOGA hosted a rally in Lafayette, Louisiana (day before the delegation met with LOGA). LOGA said 11,000 people attended the rally and its focus was on job loss. Speakers at the rally included a Charter Boat President, the Louisiana Seafood Promotion and Marketing Board. LOGA said that having representatives from other industries sent a big message of industry working together to address the situation.

Fishing Industry

- LOGA stated that it did have a working relationship with oyster harvesters and had worked together to pass legislation. 50% of the revenue for oyster harvesters is paid by shallow water oil and gas operators; fees are paid when operators transit into oyster lease areas.
- There were many conflicts with oyster harvesters over compensation claims. The relationship has progressed and industry has developed “a real relationship with real oyster fishermen” and they have not had a case in years.
- LOGA says there is an Oyster Lease Damage Evaluation Board in place with two representatives from the oil and gas industry, two oyster fishermen and a state judge.

- LOGA stated that fishermen were involved in spill response and made more money as responders than they would have in a fishing season.

Recommendations, Observations and Lessons Learned:

(LOGA)

- LOGA stated that industry does learn from mistakes and went on to say that the BP incident was an isolated scenario and should not have happened but regulators need to consider all factors of the incident before implementing further policies and regulations.

Louisiana Sea Grant

Since its establishment in 1968, the Louisiana Sea Grant College Program has worked to promote stewardship of the state's coastal resources through a combination of research, education and outreach programs critical to the cultural, economic and environmental health of Louisiana's coastal zone. Louisiana Sea Grant, based at Louisiana State University, is part of the National Sea Grant Program, a network made up of 32 programs located in each of the coastal and Great Lakes states and Puerto Rico. Sea Grant Programs work individually and in partnership to address major marine and coastal challenges.



Julie and Rusty have worked with the fishing industry for many years. A major focus of their work is to secure funding for programs that help the industry to help itself (e.g. Trade Adjustment Assistance (TAA) program, Gear Enhancement Fund, Shrimp Certification Fund, Certified Commercial Fisherman program). Julie worked at the Houma Incident Command Post during the post-spill efforts. Both were involved in getting information out to fishing industry leaders during the incident.

Key Meeting Points

- At the start of the meeting, and it was mentioned that there were three types of impacts as a result of the BP oil spill: 1) actual, 2) perceived and 3) contrived.
- There are 11,191 resident commercial fishermen in Louisiana (2009).

- Communication was a major issue following the oil spill. Information dissemination in general was not well planned. BP did open houses in central locations, but not in fishing communities. Sea Grant got information out to (fishing) industry leaders as much as they could.
- Educators put together fact sheets about dispersants (with NOAA & BP) as there was a general lack of awareness and heightened concern about dispersants.
- The Gulf of Mexico Sea Grant program put together a website which had a lot of reference material for people who had access to the internet. (<http://gulfseagrants.tamu.edu/oilspill/index.htm>).
- Sea Grant organized several information sessions for fishermen about the spill: Native fishermen came in to speak to Louisiana native groups; representatives from Alaska were brought in to speak about their experiences of the *Exxon Valdez* spill in Prince William Sound 20 years ago.
- The command structure of the containment and recovery effort was not effective from a fisheries point of view due to lack of communication—a mechanism was not in place between the command centre and the fishers/communities working the front line of response.
- A representative from Sea Grant was the first ‘environmental’ representative at the Command Centre in Houma. As a state liaison, the Sea Grant representative was involved and consulted on processes at Incident Command and it was seen as very important to “get your person in that room”.
- When the Incident Command relocated to New Orleans from Houma, Sea Grant continued its work in the region to address concerns that VOO community liaisons were unfamiliar with.
- Fishing closures were also problematic throughout the summer. Some areas were restricted as precautionary closures due to complaints/perceptions about tainting. The Status of restricted and open areas changed frequently and notices to fish harvesters were difficult to get out and usually outdated by the time they received them. Sea Grant stated that many harvesters unknowingly fished in restricted areas and were cited and required to dump their loads.
- There was a general lack of trust between fishermen and the scientific community regarding the research conducted following the oil spill and the results.

Recommendations, Observations, Lessons Learned:

Louisiana Sea Grant

- Effective communication was determined to be key in addressing actual, perceived and contrived impacts related to the BP oil spill.
- Due to the lack of trust between the fishing industry and the public regarding scientific research and results, it was recommended to identify an entity or group of scientists endorsed by the fishing industry and public that would carry out the work if another incident happened.
- Education about oil spills was also a strong recommendation from the meeting. It was also suggested that this extend to all ages groups including children, the idea of including oil spill topics at science camps was suggested.

Southern Shrimp Alliance (SSA) & Organized Seafood Association of Alabama

The Southern Shrimp Alliance is a non-profit alliance of the shrimp industry and serves as the national voice for the shrimp fishermen and processors in Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Texas. The group is committed to preventing the continued deterioration of America's domestic shrimp industry and to ensuring the industry's future viability. The SSA is governed by a volunteer



Board of Directors. The Board is composed of two elected representatives from each of the eight member-states.

The Organized Seafood Association of Alabama (OSAA) is a non-profit corporation which was organized to promote, protect and market the seafood industry of Alabama and related activities. They work to promote wild domestic shrimp from Alabama to retailers, wholesalers and the public and to educate consumers on the importance of purchasing Alabama wild domestic shrimp.

The delegation left New Orleans to drive to Alabama on Thursday morning October 21, 2010. This meeting provided the delegation with an opportunity to gain a wider

perspective of the impacts of the Gulf spill in Mississippi and Alabama based on the opinions of fishing industry representatives from both states.

Key Meeting Points

- The group thought that there was a huge disconnect between BP and the fishing industry. It was stated that the fishing industry was underutilized during the clean-up efforts. They did not have a fisheries person at the Incident Command Centre and there was a general lack of understanding about the fishing industry by the people in charge.
- The VOO program had many participants but there was no strategy or plan to organize vessels/responders for optimal containment and recovery of the oil and it created chaos. The group thought that this could have been organized in advance of a spill event and urged our delegation to consider this.
- The clean-up technology that was used for the BP spill was 30 years old. The technology got better as they went on but it was stated that the US didn't want to bring in experts from outside to help with improvements.
- It was noted that BP would continually change its "on the ground" personnel when they became familiar with the local residents.
- The group thought that politics interfered significantly and played a big role in the disconnect between the fishing industry and BP's efforts.

Compensation

- There were many unknowns about compensation and the VOO program. It was expressed that the fishing industry was getting the wrong information. There was an overall lack of understanding about compensation funding and time limits.
- The group told the delegation that BP enclosed a compensation information insert with the mailed cheques and people had a general understanding of the process but when Feinberg took over there did not seem to be a formula or a process.
- The American Shrimp Processors (ASP) helped determine a compensation formula (Ernie and OSAA worked with ASP) with Feinberg. There was one formula for vessel owners and another formula for processors. The Southern Shrimp Alliance also met with Feinberg on this.
- Processors were also affected by the compensation formula. The insurance formula was based on that of a frozen foods company. Seafood processors do not necessarily operate the same way. They need money when they are buying (May-Sept) and producing, not when they are selling.

Dispersants

- Dispersant use was another major issue.
 - » It was stated that dispersants were used to keep oil under water (out of sight, out of mind).
 - » People wanted to know the formula of the products used, or at least for the toxic components but they were patented.
 - » They wanted to know how much dispersant was used and the long term effects. These questions and concerns were never answered or addressed. In general they thought that dispersants should be used as a last case scenario.
- The safety of seafood and market issues was also discussed by the group. It is unknown what the long term issues of the oil spill will be on product (shrimp) and markets.

Recommendations, Observations, Lessons Learned:

Alabama-Mississippi

- It was emphatically stated that the oil industry must have resources/assets in place to do something about an oil spill.
- Compensation programs need to be in place in the event of a spill and fishermen should have details about compensation (formula, end date etc.).
- The group also said that fishermen and VOO task forces should be identified and criteria pre-set regarding roles in containment/clean-up efforts. The group stated that it would be “ridiculous” not to involve fishermen in response planning.
- It was noted that oil spill forecasting is dependent on the time of the year. This is something that the group hopes is addressed by NOAA.
- The group suggested the fishing industry take a closer look at oil spill response plans.
- The group recommended that the fishing industry become familiar with issues from this event (e.g. dispersants, seafood safety/market issues, etc.) and prepare accordingly.
- There was also discussion around oil spill planning. The Governor (Alabama) now has an Oil Spill Recovery Advisory Committee. (Ernie is on this committee in the capacity of environment/fishing).
- Finally the group recommended that ‘now’ is the time to prepare.

BP Incident Command Centre

Friday, October 22 was the last day of meetings for the delegation in the Gulf of Mexico. We were very fortunate to secure a meeting with BP and learned that we were the only group afforded that opportunity at the Incident Command Centre. BP had recently relocated to New Orleans.



BP representatives had organized a series of meetings and tours for the delegation that more than exceeded our expectations; we spent four and a half hours at the Incident Command Centre.

Our first meeting was with a Technical Specialist who gave a very detailed, chronological overview of the Maconda well site, the blowout, capping the well and completing the relief well.

Key Meeting Points

Technical Specialist

- MC252 #1 (Maconda) well was in temporary suspend stage – Water depth – 5000 feet – total well depth 18,000 feet
- Blowout Preventer (BOP) was still connected to the well with riser and connected back to the *Deepwater Horizon* (DWH) rig.
- Crews were preparing the well to move the rig off its location.
- During test casing, an unexpected flow of hydrocarbons entered the well and subsequently up into the riser – the cement did not hold. BP had tested a cement sample from Haliburton and initial findings are that the cement had not set.
- Rig crew attempted to close-in the well with the BOP stack but hydrocarbons reached the rig floor and ignited.
- The well was flowing with such a force that it blew; the mud/gas separator did not have the capacity to operate.
- The blowout occurred at approximately 2200h on April 20, 2010. 126 crew were on board; 115 were evacuated from the rig; 11 people lost.
- The DWH sank on April 22, 2010.

- Flow rate was difficult to determine; approximations were given as 12,000 to 19,000 bpd in May and 35,000 to 60,000 bpd after the riser was out.
- Well was capped July 15th, 2010.
- Relief well was completed on September 19th, 2010.
- There are 70 pieces of infrastructure to be picked up from the ocean floor.
- On September 8, 2010 an Incident Investigation Report identified key findings:
 - » Mechanical failure on float valves (back pressure)
 - » Human judgment
 - » Engineering and Design
 - » Operation Implementation
 - » Team interfaces
- A series of recommendations have been established to address the key findings.
- The BOP is in New Orleans, under security of government agencies waiting to be tested.

The (Command Centre) Tour

- The delegation was taken on a guided tour of the large Incident Command Centre by Deputy Incident Commander.
- Incident Command in the US was set up 40 years ago for emergency fire response and this was the first time it had been used for oil spill response. The tour consisted of 3 floors of the building; each floor had an open concept design with specific areas/stations for specific work and teams. There were 620 people working at the command centre. The delegation did notice the integration of Coast Guard and BP personnel throughout the centre.
- The stations were allocated as follows:
 - » Data
 - » Planning
 - » Resources
 - » Situation
 - » Operations
 - » BP Information Technology – Coast Guard Information Technology
 - » Concierge Desk
 - » Decontamination
 - » Severe Weather Operations Centre
 - » Environmental
 - » Liaison-Media

After the tour, the delegation reconvened in the meeting room with the Incident Commander and SCAT Leader Contractor for BP.

Key Meeting Points

- National Incident Command's mandate was to respond, recover and protect the coastline.
- Command was set up as follows:
 - » Galveston, Texas
 - » Houston, Texas – source control/BOP/wellhead
 - » Mobile, Alabama – near shore protection
 - » St. Petersburg – Florida, near shore protection
 - » Miami, Florida – near shore protection
 - » Houma, Louisiana – onshore out to 60 miles
 - » 80 different federal states
 - » 68 contractors
 - » 23 different countries assisting in response support
 - » There were 7,000 vessels in operation, 48,000 response personnel, 125-150 aircrafts
 - » 108,000 people were trained in 100 days
- Response effort was 7 days a week with shift rotation of 14 days on-14 off, some did 14 days on-7 off, day and night shift were 12 hours and 16 maximum. Coast guard worked every day, now they have 1 day off in 7.
- The umbrella of Incident Command provided a common language and framework.

The Spill

- First rule is know your oil: behaviour, characteristics, evaporation elements and water temperature.
- 40% of the oil evaporated going from seafloor to surface and 10% evaporated after it had been on the water for 24 hours.
- As the oil weathers it becomes a different product and is not burnable – dispersants and skimmers become ineffective
- Aerial surveillance played a significant role in locating and tracking oil and communicating sightings back to Command.
- Infrared technology on vessels worked well to spot oil during daytime.
- Within a 3-mile radius around the offshore well there were:
 - » 100 support vessels
 - » 30 Dynamic Positioning (DP) vessels eleven feet apart
 - » 14 Remotely Operated Vehicles (ROV)
 - » 5 drilling rigs

- Within 6 miles of the spill site there were:
 - » Mechanical Skimmers (850,000 barrels of oil were skimmed)
 - » Controlled burning with 16 burn teams – 411 ocean burns; longest burn lasted 11minutes 47 seconds (3,000 barrels of oil burned)
 - « Air quality was monitored 24 hours a day by an EPA and a BP monitor and no alerts were issued.
 - » 5500 feet of fire boom; fire boom had not been manufactured for five years – BP shipped it in from everywhere around the world and then started manufacturing it at a capacity of 2000 feet a week
 - » 4 shrimp boats of 75–120 feet were involved at the 6–mile radius effort.

Dispersants

- Brought in 400,000 gallons from around the world
- Aircrafts offloaded 1.1million gallons of dispersants.
- 600,000 gallons were used in subsea injection.
 - » Subsea dispersant had never been used before. Norwegians came forward with their research on the process stating that they had proven 80%-90% efficacy of dispersant use by injecting it at the source.
 - » EPA approved subsea injection in 3 weeks.
- Total of ~1.8 million gallons used; would fill 3 Olympic size swimming pools
- The dispersant used (Core-xit 9500) was less toxic than the oil itself; contained baby shampoo, toothpaste and Windex.
- Surface dispersant was preapproved by EPA and was also retested by EPA and Louisiana State University to evaluate efficacy and toxicity.

Boom

- Everyone wanted boom; every mayor and every parish
- Started off with 750,000 feet of boom and brought it in from wherever they could find it
- Acquired 13.6 million feet of boom; Utsler says BP now owns enough to boom the entire Gulf of Mexico
- Tiger boom failed
- Built rigid boom with 5 foot skirts because of the currents
- For 90% of the time it is better not to use boom:
 - » Boom moves
 - » It is difficult to anchor

- » They discovered that it was ineffective in over 1.6 foot waves
- Boom is considered to be the final wall of defense

Vessels

- There were 7,000 vessels used in the response effort (commercial and recreational).
- Vessels were used for skimming, boom deployment, monitoring and research.
- Less than a 1000 vessels were used for skimming.

VOO Task Force Vessels

- Task Forces started at Day 30 of the spill.
- 14 Task Forces; 25 boats in each unit and each Task Force had a medic vessel
- Vessels carried boom lined with absorbent (sheen busting).
- There was no skimming conducted after July 23, 2010.
- More than 1000 vessels were still active (October 22, 2010).

Evaluation of Response Vessels/Equipment

- Boom used in the near shore – very good
- Sheen busting and skimming in near shore – variable results
- Skimmer and containment capabilities – vessels need to be modified
- Training responders could resolve a lot of the issues and that oil and gas companies should pay for this and ensure the level of training is maintained by offering refresher courses.

Shoreline Cleanup

- Understand the archeological make-up of a coastline; BP had geologists and technologists survey almost 5,000 miles of beach and it was determined that some areas should not be disturbed.
- BP had 16 Shoreline Cleanup Assessment Teams (SCAT) versus 4 used in the Prince William Sound spill in Alaska.
- Gulf of Mexico has 10,000 miles of coastline; 580 miles were impacted by the spill and 130 miles of coastline had a medium to heavy impact which could be mechanically removed.

Decontamination

- The decontamination process has been a massive undertaking; all vessels had to come to port to be cleaned (exterior and interior) and then sent back out. It included anchors, chain, rope and riggers-Coast Guard signed off on inspections.
- All the equipment had to be cleaned including skimmers and the miles and miles of boom.
- Waste management sites were located throughout the Gulf region and offshore. Solid and fluid waste was sent to a refinery.

Rescue and Rehabilitation

- Wild life rehabilitated
 - » 8000 birds affected
 - » 4000 lost
 - » 4000 rescued and released
- Turtles
 - » 350 turtles captured and released
 - » 400 lost
 - » 14,000 relocated
- 2 Whales
- 21 dolphins/porpoises
- 1 alligator
- 1 fox
- 1 cat
- More work will be done to assess long term impacts.

Fishery Closures

- » At the peak of the spill 90,000 square miles of fishery areas were closed; 16,000 square miles are still closed (October 22, 2010).

Fish Monitoring and Sampling

- Testing of various fish species will be conducted on an ongoing basis until 2014.
- 30,000 fish tested: 2 false positives for taint (based on smell). Confirmed to be no taint through further lab testing

- Fish sampling and monitoring is a commitment of BP and various governments in GoM and the program includes:
 - » 1 year for finfish
 - » 2 years for shrimp and crab
 - » 3 years for oysters
- Fish harvesters will be involved and consulted on the sampling and monitoring programs.
- Testing will be extended based on results.
- 50 local vessels are participating in the testing and monitoring program.

Seafood Safety and Seafood Marketing

One of the challenges of working with the seafood industry was to understand the industry. Certain species are specific to certain areas, however each state (Louisiana, Mississippi, Alabama) wants state certification not “Gulf of Mexico” certification and the single approach process is not productive. Bringing everyone together as a Gulf fishery has been a challenge.

Recommendations, Observations and Lessons Learned:

BP identified and presented the following Lessons Learned:

- Know your oil – fast identification of oil type and how it changes over time is essential for speedier solutions
- All spill response is local – only a decentralized set of local sites can respond effectively
- Build in long term planning capability from the outset – need team outside the daily “fire fighting” to think days and weeks ahead
- Pursue multiple parallel efforts and solutions – flexibility needed when you cannot be sure how situation may evolve
- Be nimble – continuous learning that integrates all relevant expertise under fire accelerates progress
- BP had established a call-in number to hear from members of the public who had ideas and plans on all aspects of spill response. BP received 122,000 ideas/plans and 1,000 were used or further developed and included: Big Gulp, Sippy Cups, Sand Sharks and Sand Washing.
- Community outreach – in the early stage of the spill everyone wanted information and data ‘now’ and BP was slow getting the information out but they have it covered now.

- From a preparedness perspective, it is important to have trained responders and an accessible, updated, contact database. Equipment and/or vessels need to be modified for optimal containment and response.
- It became evident that the oil and gas industry did not have the infrastructure or equipment ready to go and industry has learned from this. A new consortium had been formed to build infrastructure, equipment and storage and have it ready.

What We Learned: Delegation Key Findings

The One Ocean Joint Industry Delegation Study Tour to the Gulf of Mexico was organized to assist in addressing questions, issues and concerns identified by the One Ocean Board regarding the Deepwater Horizon spill incident. The Delegation met with Gulf of Mexico representatives of the fishing and petroleum industries involved in and/or affected by the spill. The purpose was to listen to their perspectives, learn from their experience and determine if and how the information gained could assist our industries to become more informed on oil spill preparedness and response in Newfoundland and Labrador.

During the 13 meetings, fishing and petroleum representatives discussed many components of the spill and response effort. Based on this information, and the objectives of the Gulf of Mexico trip, the One Ocean delegation identified its key findings:

The fishing industry played a vital role in oil spill response.

- **Lesson Learned:** Response time, capability, capacity and optimal results would have been more effective if fish harvesters had prior oil spill training.
- **Recommendation:** Preparedness Plan should involve the training of fishers in oil spill response including:
 - » Database of trained responders
 - » Database of pre-qualified vessels
 - » Routine on-water exercises and refresher courses
 - » Ensure that vessels and response equipment are compatible
 - » Contracts should be developed and include:
 - » Pay rates
 - » Shift Schedules for each mode of response

The compensation process and procedure was not understood

- **Observation:** Compensation claims are still ongoing. Claimants expressed frustration about understanding formulas and the consequences of making a final claim
- **Recommendation:** Need to develop a comprehensive compensation program detailing:
 - » Eligibility
 - » Pay rates
 - » Future liability

The fishing industry was negatively impacted by the spill

- **Observation:** Restricted fishing areas (closed) due to the spill had a major economic and social impact on fish harvesters
- **Observation:** Public perception of tainted seafood (oil and dispersants) was difficult to address and rectify and resulted in considerable market damage
- **Lesson Learned:** It is vital to have immediate and reputable scientific seafood testing in place and to have the results promulgated
- **Lesson Learned:** It is imperative to have funding in place to promote and market seafood products during a crisis
- **Observation:** Effects of short and long-term impacts of the spill, including dispersants on the fishery is a major concern
- **Recommendation:** Monitoring programs need to be developed and implemented on various species of fish at different life stages over a long-term period and fishers need to be involved and consulted on the scientific monitoring programs

The oil and gas industry did not have the infrastructure or equipment on hand for response

- **Observation:** The Gulf of Mexico spill is unprecedented. Response to the incident identified the ability to improve and advance technological and logistical components
- **Lesson Learned:** Preparedness levels will be updated and more infrastructure, equipment and storage will be developed, built and ready

Communication was a major issue

- **Observation:** A consistent issue raised at the meetings was the lack of communication at various levels:
 - » Within the Fishing industry
 - » Between the Fishing and petroleum industries
 - » Within and between local, state and federal governments
 - » Within the Vessel of Opportunity program
 - » Compensation claimants and BP
 - » Between the public and the fishing and petroleum industries
- **Lesson Learned:** Deficient communication protocols led to confusion, mistrust and lack of cohesion
- **Recommendation:** A clear, concise, communication plan at all levels would improve the ability to convey and receive prompt and correct information and facilitate a collaborative approach

Conclusion: Delegation Goal and Objectives

Members of One Ocean met with representatives of the fishing and petroleum industries in the Gulf of Mexico with a goal to determine if and how the perspectives and information gained from the meetings could assist both industries in working together to address concerns on oil spill prevention and response in Newfoundland and Labrador.

The delegation identified several objectives to achieve the goal including:

Objective 1: Participate in a Gulf of Mexico delegation from the perspective of two industries recognizing the importance of working together to address concerns

Representatives of the fishing and petroleum industries in the Gulf of Mexico commented on the advantages and value of the Fish, Food and Allied Workers (FFAW) union as a single organization representing fish harvesters. The merit of a joint industry model like One Ocean was also noted. Representatives stated that One Ocean was a good example of the two industries working together because of choice and not crisis. They also stated that promoting awareness and understanding of each sector's operational activities was an example to be followed. Representatives said that organizing a delegation to the Gulf of Mexico illustrated the commitment of One Ocean's members to work together to address industry concerns.

Objective 2: Gain insight and perspective from the Gulf of Mexico fishing and petroleum industries on roles and interaction in spill response efforts

Objective 3: Learn about the challenges each industry has experienced, if and how they were resolved and ongoing concerns

Objective 4: Examine lessons learned, practices and processes from both industries in the GoM and determine if and how they could benefit One Ocean

Travelling through Louisiana to Alabama to meet with industry representatives in their community offices and homes provided a valuable learning experience for delegation members. It was an opportunity to visit coastal areas first-hand and witness the 'southern' charm and hospitality extended by industry representatives. The willingness of Gulf of Mexico meeting participants to share information on roles, processes, practices, interaction, perceived impacts, uncertainties and challenges of the spill and response effort exceeded our expectations. The success of the One Ocean joint-industry delegation is directly attributed to the people we met with and the fact that we were there.

The One Ocean joint-industry delegation identified key findings based on its objectives for the Gulf of Mexico Trip and the information shared by meeting participants. The key findings will be used by One Ocean members to achieve its goal in identifying next steps towards a collaborative and comprehensive approach on oil spill prevention and response in Newfoundland and Labrador.

