

Meta-Leadership Lessons from the Response to the 2010 Deepwater Horizon Oil Spill

An NPLI Case History

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National Preparedness Leadership Initiative

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Meta-Leadership: Deepwater Horizon



*The Deepwater Horizon drilling rig on fire
(Photo: Wikipedia Commons).*

Background

On April 20, 2010, there was an explosion on the ultra-deepwater drilling rig Deepwater Horizon (also known as Mississippi Canyon 252). Eleven workers were killed. Two days later, the rig sank, triggering an oil leak that spewed an estimated 5,000 barrels of oil per day into the Gulf of Mexico and heralding a potential environmental and economic disaster that could affect the states of Alabama, Florida, Louisiana, Mississippi, and Texas.

Complicating the incident was its location: 40+ miles from shore in 5,000 feet of water where repair attempts could only be made by remote control robots. All the safety mechanisms for capping the well in an emergency had failed, leading to an attempt to use techniques that had not been proven to stanch the flow of oil and natural gas under such conditions.

From May 6-9, 2010, Dr. Leonard Marcus and Eric McNulty of the National Preparedness

Leadership Initiative were in Louisiana to observe the leadership of the response at the invitation of Rear Admiral Peter Neffenger (Cohort IV) of the United States Coast Guard. Neffenger was serving as Deputy National Incident Commander under Admiral Thad Allen, Commandant of the Coast Guard and National Incident Commander designated by President Barack Obama. During their visit, Marcus and McNulty spent time in the National Incident Command Post in New Orleans, the Unified Area Command Post in Robert, Louisiana (with Coast Guard RDML Mary Landry, Unified Area Commander and Federal On-Scene Coordinator, Cohort VI), and the Incident Command Post in Houma, Louisiana as well as the Louisiana state Emergency Operations Center in Baton Rouge, Louisiana (with Pat Santos, Deputy Director of Emergency Management, LA Governor's Office of Emergency Management and Homeland Security, Cohort VI). Following are their preliminary observations.

The Impact of Time

The Deepwater Horizon spill was a relatively slow-moving event. Terrorist attacks are over in a matter of seconds. Hurricanes can be measured in hours. This event and the response were still unfolding three weeks after they began.

For leadership, this pace can be good – thinking and actions can be deliberated and, if necessary recalibrated, and resources mobilized – yet also bad in that the public, politicians, NGOs, and the media (to name a few) will also have time to process and focus on individual aspects of the event that are most compelling to them. This can

distract from the efforts directed toward the overall response.

For example, in this event, Congressional hearings began before the wellhead was capped. They normally would begin after the initial response to an event was complete. Such hearings can drive parties into confrontational positions at a time when collaboration is still critical to the response efforts.

Everyone wants to appear to be doing something: politicians call hearings; lawyers file suits; the media broadcasts compelling stories; environmental NGOs launch fund-raising efforts – this is just what people do. Having them do it amidst a response, however, can greatly complicate the life of the leader.

What to Do

Exercising Meta-leadership requires balancing – and rebalancing – myriad parties, activities, and resources. The pace of the event and response are critical inputs into this process and must be a factor in strategy and decision making. Take time to understand how varying your pace from that set forth in your original plan may affect circumstances and require you adjust (see The Anxiety Gap and The Control Factor below).

Meta-Leading the Anxiety Gap

In a major event, a gap grows between what is actually happening on the scene and anxiety about what is or what could happen. This is called

the anxiety gap. There are numerous factors that act to widen the anxiety gap, including the “unknowns” – e.g. in this case where and when oil would hit the shoreline and when and how the oil well would be controlled; media attention on any problems arising; mistakes – real and perceived; concerns of elected officials about political and economic implications; and the adversarial nature of the legal consequences and resulting procedural challenges in such conditions.



RDML Neffenger and staff at the National Incident Command Center in New Orleans.

When people—from those in the affected area all the way up to senior elected officials in Washington—are anxious, they can become almost desperate to demonstrate control and competence. They will focus attention on details and distractions, and then direct activity and make decisions about those details and distractions, even when they do not have the technical expertise to do solve a particular problem. Paradoxically, even as they seek to reduce their anxiety, their behavior can instead cause it to grow: that is, responding to details and

distractions that do not contribute to fixing the problem tends to reinforce the anxiety and further wide Significant anxiety gaps grew during the Deepwater Horizon event regarding: the responsible party, BP; the “politics” of the event; the short-and long-term effects on wildlife; control of the spewing oil; the stability of businesses from large multi-national corporations to small fishing and tourist attractions; and damage to wetlands, to name a few.

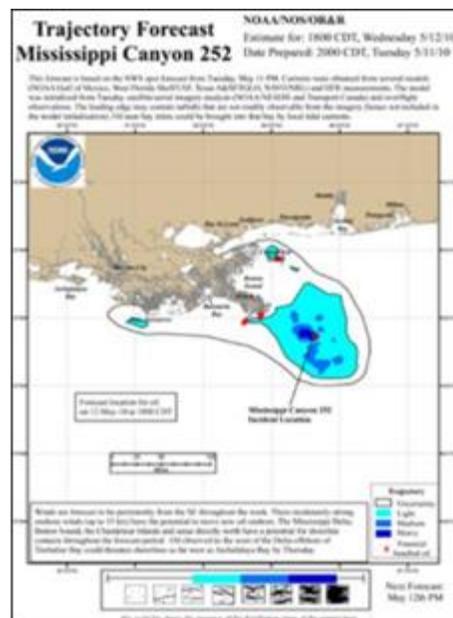
What to Do

To close the anxiety gap: 1) identify it; 2) understand it; 3) provide frequent, relevant, and accurate information that is fact-, science-, and evidence-driven; enable visibility into planned response efforts and emphasize transparency; 4) direct attention toward meaningful strategies to address concerns based on the facts; 5) maintain fact-based attention on both short-term and long-term considerations; 6) continue to monitor the presence of anxiety gaps and return to point one.

For example, there were several activities directed at mitigating the oil spewing into the Gulf, including controlled burns, skimming and collection, booming, dispersants, and capping. Attention should be directed toward such overall strategic efforts – here focused on controlling the spread of the oil – rather than focusing too much attention on any one logistical activity.

The Complexity of a National Event

A large complex national event is in fact many distinct though related events, each with different contingencies, requirements, and associated stakeholders. These distinct events and missions also involve different though related groups of experts and support personnel. Each must be afforded the backing and space to accomplish their purposes and they must be carefully coordinated on matters where there is overlap. It is the responsibility of meta-leaders to ensure that the execution of one critical event does not unreasonably interfere with or distort another critical event. These different events could be arrayed across the horizontal plane of activities necessary for responding to a complex incident of national concern.



A forecast of the Deepwater Horizon spill on May 12, 2010.

The Deepwater Horizon oil spill is many events. For the overall operation to succeed, each of these must be understood and supported for its unique contingencies, constituencies, requirements, as well as the interactions and interdependencies between them. These separate events include: a) an environmental impact event; b) a large corporate event; c) a small business event; d) a legal event; e) a political event; f) an engineering event; g) a media event; h) a public relations event; i) a federal event; j) a state event; k) a local or “parish” event; and l) a policy event to name but a few.

Perspectives vary: The Unified Area Commander sees a multi-sector event that affects several states as well as a large swath of the Gulf of Mexico. A governor will use a lens that puts the impact on his territory and constituencies in highest relief. A parish president will have yet a narrower view because he represents a more concentrated constituency. As Tip O’Neill famously said, “All politics is local.”

What to Do

Over-emphasis on particular events can distort what occurs or needs to occur among the full array of distinct events. On May 7 and 8, the “political event” along with the “state event” was observed to crowd accurate assessment of the “environmental event” and the “mitigation event” when the representative of a state with primarily beach exposure wanted mitigation parity with a state with marshland exposure. A purely environmental response would assign greater resources to protected marshland because they

are biologically diverse, fragile, and difficult to clean while beaches are relatively easy to clean.

The Deepwater Horizon oil spill was many events.

However, oily beaches are an ideal “photo op” that can have long-term negative consequences for tourism even if they are cleaned quickly. It is the role of the meta-leader to identify and understand each of these distinct events and perspectives, providing the space, time, and resources to engage in the necessary activities to ensure that each receives appropriate consideration. At the same time, the meta-leader must balance the activities associated with each event so that one does not infringe upon or interfere with the success of the other. In the Gulf oil spill, meta-leaders are challenged to ensure that decision making and activities at sea - including capping, dispersing, burning, and booming - are not interrupted by political considerations that will interfere with mounting the best possible balanced response to the oil spill.

Keeping Strategy, Operations, and Logistics Distinct

While the many simultaneous events can be arrayed across the horizontal plane, the well-recognized distinction of Strategy-Operations-Logistics sits on the vertical plane. Policy makers sit on the strategic level responsible for critical decisions and directing inter-governmental coordination. Subject matter experts populate the operational plane translating those directives into coordinated management of activities directed to

the field. Logistics functions at the field level with activities designed to bring the event competently under control.

What to Do

Those responsible on the strategic level ultimately will be judged for their attention to and success on that level. They should therefore be attentive that distractions do not limit their strategic impact. It is the responsibility of meta-leaders to help focus the attention of people at each of these levels on matters in their scope of expertise and responsibility, and to help them fulfill those responsibilities. While there must be communication that informs each level of the work on other levels, decisions and actions should remain at their best point of expertise and responsibility.

The “Control” Factor

There is comfort in control. One knows what will happen and what won't. The obverse is also true. There is great discomfort at the prospect of a lack of control. It is impossible to predict what will happen next. And when the public expects that events that are out of control will soon align into a favorable and predictable outcome, pressure grows on responsible government officials to formulate a satisfactory conclusion to the event.

It is also important to articulate what you control and what you do not control...

The oil leakage in Mississippi Canyon Block 252 is beyond immediate control. Unlike a ruptured oil tanker that has a known amount of oil on board, it

cannot be known how much oil will from a vast underground source. An operation to plug or siphon the oil at this depth has never been tried before, so it cannot be known exactly how to do it and what will work. Wind and sea currents shift daily and it is hard to predict how much oil is being discharged and where it will go.

What to Do

While the public, the media, and politicians demand that experts get this event under control, it is critical for meta-leaders to identify what can be controlled, what can't, and what they are doing about it.

For example, it can be learned how much containment boom there is in the world, how much can be deployed to the Gulf, and when it will arrive at which locations. However, boom that does not exist simply does not exist.



Dr. Leonard Marcus (L) with Pat Santos and Eric McNulty at the LA state EOC.

During early H1N1 just one year before, when there were many factors that were both unknown and uncontrollable, leadership addressed the nation with a clear message worthy of replication in the Gulf situation: 1) This is what we know and

are doing about it; 2) This is what we don't know and are doing about it; 3) This is what you (the public) should do. In the Gulf situation, it would be modified to: 1) This is what we are doing and this is the impact; 2) This is what we are unable to do or know and this is what we are engaging to learn and do more; 3) This is what you the public can expect. Transparency is a positive factor in such an event and leadership should be cognizant that criticism will be attracted to wherever it does not exist.

It is also important to articulate what you control and what you do not control so as to align perceptions of stakeholders with reality.

The Structure of Response – HSPD5

Over the years, a complex array of laws and structures were developed to organize government activities in preparing for and responding to a major event. Because they were often responsive to what occurred in a specific event or to thinking at a particular time, these different laws and structures do not align with one another and do not logically array the full scope of activities, authorities, and responsibilities across the government.

The Secretary of the Department of Homeland Security has wisely seized upon the BP oil spill to rationalize the interface of the National Contingency Plan and HSPD directives to clarify her authority during an event and that of agencies within the Department of Homeland Security as well as those of collaborating Departments,

including the Department of Interior, the Environmental Protection Agency and others.

It is important to understand when you are setting precedent, or have the opportunity to set precedent, that will govern future events. Use this power wisely.

What to Do

One aspect of executing a logical response to a major event lies with inter-agency coordination of effort and clear lines of authority and responsibility. Another requires attention to leadership of the event. While structures, money, and machinery are critical to the success of a major response, there is ample evidence to support the notion that people and people skills are also a critical factor. Just as the Secretary took this opportunity to fine tune the structure of response, parallel attention should be provided to effective leadership of such a response. This includes leadership development training, research, modeling, and evaluation of effective leadership models. In the field, it will be effective leadership that will determine whether this better formed structure will achieve its objectives.

Interface with the “Responsible Party”

An outcome of the Oil Pollution Act of 1990 is a set of specific responsibilities and requirements of the entity deemed the “responsible party” to prevent, mitigate, and respond to major catastrophes. A multi-billion reserve fund has been established by the industry to provide funds

for just the sort of event that is unfolding in the Gulf.



Dr. Leonard Marcus (l) and RDML Mary Landry (r) at the Unified Area Command Center in Robert, LA.

We met with a number of government officials as well as BP employees during our visit to the Gulf. The government officials reported that BP, from its CEO to people in the field, has been generous and responsive in the willingness to provide money and technical effort to address this event. They gave \$25 million to each of the four affected coastal states. They are providing work to affected fisherman. And they are paying for an expensive set of response activities at sea. While the media has certainly picked up stories of disgruntled people, the overall official assessment of BP that we heard was positive. This assessment was in part a function of senior government officials who took the time to meet with BP leadership and lay out a set of expectations. These meetings were effective in getting BP leadership – still reeling from both the initial human loss as well as the financial implications of the oil spill – to quickly turn around and launch constructive work.

RMDL Landry reported that she worked with BP executives to get them to broaden their focus from

the engineering event – the area in which they had the greatest expertise – to encompass the broader response efforts for which they were now the “responsible party.”

What to Do

BP and the other companies involved will undoubtedly be distracted by competing factors as this event moves forward. One Meta-leadership task will be to monitor their involvement and their focus on activities appropriate to each phase through which this event will transition. This must be applied to the many simultaneous individual events horizontally as well as to the array of strategic, operational, and logistical factors vertically. It would be easy for them to be distracted on both planes.

The Politics of the Federal/State Interface

This event has garnered a national response because of its scope. The federal government is in the lead. Four Gulf Coast states – that were coincidentally hit by Hurricane Katrina in 2005 – will suffer some impact from oil drifting into coastal areas. The federal government was acutely aware that this event could be “their Katrina” and were aggressively managing to both appear and be responsive to the states. The President was being briefed daily on the situation. Governors of the affected states assumed different postures in this event. Two took a pragmatic approach, focusing on specific problems and wanting to be assured that the federal government was addressing those specific concerns. The third was less concerned

with specifics but sought reassurance that the overall effort would take care of any problems that would hit his state.

The federal government was acutely aware that this event could be “their Katrina...”

The fourth assumed a far more confrontational position, carrying the memory of mistakes from the Hurricane Katrina response and wanting to take Coast Guard officials to task for perceived shortcomings during the current spill.

RDML Neffenger, in coordination with ADM Allen, took the lead in rebalancing the relationship with the confrontational governor by skillfully taking action to address his real and perceived needs without sacrificing the effectiveness of the larger response.

What to Do

Obviously, the confrontational governor would be the most difficult to manage through this event. This is a conflict management task. It is important to distinguish listening to him from agreeing with him. So that his does not become a distraction or source of distortion from the overall requirements of the response, the negotiations with him and other officials from his state should avoid getting caught up in his emotional ambushes and outbursts. He must be given something to mollify him though not to the extent that his demands are met at the expense of overall response effectiveness.

Leaders and the “Basement”

High stress circumstances spark an almond shaped structure in the brain, the amygdala that overtakes rational thinking and takes one down to basic instincts. This process is called “going to the basement.” In the basement, the triple F – fight, flight, freeze – survival mechanisms assume control. Getting out of the basement requires one to first ascend to routine tasks, what is called the “tool box,” before a leader can reach the highest levels of thinking, the neo-cortex, where creative and original problem solving occurs.

While human lives were no longer immediately at risk – the only deaths were among the eleven oil workers who perished in the initial platform explosion – there was still much at stake. As people push and pull to ensure that their concerns are addressed, and as high pressure activities demand long hours and abundant patience, leaders go to the basement. It is a natural process and one that should be expected during an event of this nature.

What to Do

This is where Meta-leadership training can be helpful, particularly an understanding of the person of the meta-leader. When leaders are aware of this tendency to descend to the basement, they can self-monitor or monitor one another to ensure that key decisions and major announcements are not made from the basement. This sort of self-awareness and self-control is a reflection of “emotional intelligence,” a term coined by Daniel Goleman and a set of skills essential to leadership in a crisis environment.

The Complexity of Situational Awareness

In a major event, it is the responsibility of leaders to develop acute situational awareness, knowing that as more information is gathered and available, the picture of the event will change. Situational awareness is the combination of self-knowledge (Meta-leadership Dimension One) and accurate diagnosis of the reality of the situation (Meta-leadership Dimension Two).

...there needs to be a better vocabulary to describe exactly what is going on and the real risks...

This event was unprecedented and at a depth below which humans can go; it was ferociously difficult to achieve robust situational awareness. Those responsible were even finding it difficult to know what to measure and where to find the information they seek. Often, surrogate measures of the situation are used to stitch together a picture. The dispersion of information can be as unpredictable and uncontrollable as the dispersion of the oil: inaccuracies, unbalanced information, and rumor flood into the mix.

What to Do

Our admittedly untrained eyes observed the site of the oil leakage from the air, seeing patches of oil splattered across the sea. All of us on the plane commented that what we saw departed in some ways from the representations seen on maps at the response centers. For example, while oil may be approaching land masses, the volume of oil, the depth of the oil, and the concentration of

the oil will greatly affect its impact. We were told that the oil sheen on the surface is only one atom thick. Just as earthquakes, pandemic influenzas, and hurricanes have their numbers to distinguish their intensity, scientists may be able to develop a set of simple metrics to more robustly describe the amount of oil concentrated in the sea and the dangers posed as a result. This could serve to close the anxiety gap for the public, for the media, and for elected officials who are being held accountable for what occurs on the Gulf. In other words, there needs to be a better vocabulary to describe exactly what is going on and the real risks – and education about that vocabulary – a tool that could help close the anxiety gap.

In the End, People will Determine Success or Failure

Those trained in Meta-leadership and those who practice it by virtue of experience and intuition focus on its three dimensions (see “About Meta-leadership” below) to build the connectivity of action necessary to mount a systematic effort across the many governmental agencies that have responsibility and out to the business sector and to non-governmental agencies. Meta-leaders are able to exercise influence well beyond their authority, a critical skill during an unprecedented event that is difficult to control and predict, and one with so many different stakeholders intimately involved.

While we choose not to single out particular individuals, we observed extraordinary Meta-leadership exercised during this event. As of this

writing, it is yet impossible to get control of the escaping oil and resulting slick. It is however possible to align many different people, organizations, and agencies to mount the best possible response to this complex event. This is one of the great successes of this response. It is relatively easy to construct organizational charts, to purchase equipment, or to allocate dollars. However, if the people factors do not work well, the charts, equipment, and dollars will not go to good use. It is the people factor at which it will be most difficult to succeed yet the one that has the best chance of reaping the most robust success.

What to Do

The leadership experience during this Gulf event should be used to inform the leadership of future events, just as the leadership of the early H1N1 event informed what is occurring in the Gulf. It is the accumulation of leadership lessons learned and the transmission to future leaders that will assure the country of mounting the best possible response when lives and the welfare of the country are most at stake.

Other Key Takeaways

- *"We Never Envisioned..."* Among the more common phrases we heard was "we never envisioned..." in discussions ranging from the spill itself to initiating payroll for reservists in the absence of the invocation of the Stafford Act. Planning assumptions must regularly be challenged and stress tested with "what if" questions.

- *Know Your Stress Signals.* Long hours and high stakes create fatigue in everyone. Know your own "stress signals." Do you get agitated? Go into overdrive? Crave protein? Whatever your particular signal is, be aware of it and designate someone else who can alert you when you exhibit the behavior. Large-scale response, especially in a long-duration event, is a marathon, not a sprint. You will need to take a break and ensure that your people do as well.
- *Manage Transitions Strategically.* Long duration events will require leadership transitions at many levels throughout the response. Manage those transitions carefully to preserve relationships that have been established and set expectations so that people do not feel threatened when asked to stand down or, if an event escalates, find new layers above them.
- *Educate Non-technical Participants.* A response will bring together many people with varied backgrounds and expertise. The fast pace will induce them to fall into jargon and technical terminology that may not be understood by all. Take the time to ensure that everyone involved understands the concepts and terminology critical to the response to minimize the chance of misunderstanding and miscommunication.

About the National Preparedness Leadership Initiative

The NPLI, a joint program of the Harvard T.H. Chan School of Public Health and the Harvard Kennedy School of Government, was established in 2003 at the request of the federal government. The program conducts research on homeland security, emergency preparedness, public health and public safety leaders in times of crisis and change, turning lessons learned into an executive education curriculum, case studies and scholarship that highlight best practices.

About Meta-Leadership

The Meta-leadership framework and practice method is core to the NPLI's curriculum. The methodology has been developed and tested through years of field research, academic inquiry and real-time feedback from practitioners. It continues to evolve. "Graduates of the NPLI executive education program report that this framework has made a significant difference when applied in their real world problem solving and crisis response," said NPLI Founding Co-director Leonard Marcus. "They reach out to one another and coordinate their actions more pro-actively than they otherwise would have. This sort of Meta-leadership in a crisis or other major event has important public health impact, insofar as agencies are better able to serve the population and reduce the loss of life."

The Meta-leadership framework has three dimensions to teach leadership skills:

- 1) The Person of the Meta-Leader: self-knowledge, awareness, and discipline;
- 2) The Situation: discerning the context for leadership, what is happening and what to do about it;
- 3) Connectivity: fostering positive, productive relationships. Connectivity includes four key directions:
 - a) leading down the formal chain of command to subordinates - within one's chain of command - creating a cohesive high-performance team with a unified mission;
 - b) leading up to superiors, inspiring confidence and delivering on expectations; enabling and supporting good decisions and priority setting;
 - c) leading across to peers and intra-organizational units to foster collaboration and coordination within the same chain of command, which includes other departments, offices or professional groups within the same organization.
 - d) leading beyond to engage external entities, including affected agencies, the general public and the media to create unity of purpose and effort in large-scale response to complex events.

The Meta-leadership framework and vocabulary are commonly used across many homeland security, preparedness and response organizations. Faculty have conducted hundreds of training sessions, including executive education programs at Harvard, as well as on site programs at the White House, Departments of Homeland Security, Health and Human Services, Defense, Veterans Affairs, the CDC, Secret Service, FEMA Transportation Security Administration and numerous private sector organizations.