OIL AS THE TARGET: REVIEWING THE GOVERNMENT'S RESPONSE TO A MAJOR OIL SPILL RESULTING FROM A TERRORIST ATTACK

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ABSTRACT: *If the events of September 11th tell us nothing else, they clearly illustrate that our decades old response planning scenarios and response capabilities need to be re-evaluated. Intentional acts and terrorist incidents are designed to result in maximum impact. Had the terrorists chosen an oil storage facility as their target for mass destruction, how prepared would the National Response System be to mount the proper response in order to minimize the impact? This paper seeks to answer that question by first describing just such a scenario and the Federal government's role in managing the consequences. The emerging role of government agencies that do not typically respond to oil spills would join forces with core members of the National Response System (NRS) by way of the Federal Response Plan (FRP). This paper explores gaps in the integration of the FRP and the National Oil and Hazardous Materials Pollution Contingency Plan (NCP) and proposes solutions that help bridge those gaps.*

Scenario

The focus today in preparing for the consequences of a terrorist attack are primarily in the area of chemical, nuclear and biological warfare agents. However, environmental terrorism involving oil is not a new concept. Sadaam Hussein wreaked tremendous devastation on the environment of Kuwait when he deliberately caused the release of over 60 million barrels of oil from the destruction of over 700 oil wells (Omar, Briskey, Misak and Asem, 1998). By choosing oil as the target of their devastation, terrorists will undoubtedly cause environmental damage. However, a major oil spill could also have a severe impact on the economy as well as the public health and welfare of the affected region. Our nation's ports are a major hub of trade and commerce. For example, the Port of Houston generates over $7 billion in business revenues annually (Port of Houston Authority, 2002). A disruption of port activity due to a major oil spill could have far-reaching impacts. This potential for wide-spread impact makes oil a target for more than just environmental terrorists.

The scenario for this paper could take place in nearly any major U.S. port. Typical to many U.S. ports, our fictional port combines a robust maritime industry that is integrally linked to a the transportation infrastructure capable of moving cargo and people beyond the port city. A thriving oil import terminal is located in the protected waters of the adjacent bay. The storage capacity of this terminal is comprised of 450 tanks totaling over 300 million gallons of crude oil. The terminal receives crude oil from foreign tankers and moves its commodity to local refineries by pipeline and barge shipments via the intracoastal waterway which runs through the bay. Sharing the busy waterways of the port are a ferry service that moves thousands of people a day across the bay, the tanker traffic, local barge traffic and freight ships that serve a small container port and car import center. A local fishing fleet is located in the lower bay and makes their living harvesting shrimp and oysters. The bay provides cooling water for a major power plant, serving the port city.

On a clear summer day, the tank farm of the oil terminal suffers a catastrophic failure of eight of its tanks, causing 70 million of gallons of crude oil to spill into the bay. The cause of the incident is unknown, but the terminal operator heard a loud explosion immediately before the tanks failed. The secondary containment, designed to prevent oil from escaping the immediate confines of the tank farm collapsed on one side as the surge of oil from the failed tanks came crashing down.

The NRS Response. Having evolved over 30 years, the National Response System (NRS) effectively leverages the resources of the federal government to remove the oil while minimizing damage to public health, the environment, the economy and cultural and historical resources. It can expand to match the complexity of a spill and aligns government agencies at all levels to implement the NCP. Upon notification, numerous local, state and federal agencies respond to the scene. Under the NCP, the Federal On-Scene Coordinator (FOSC) establishes a response organization, utilizing the Incident Command System (ICS), which incorporates all government and private resources into a single response structure.

If necessary, the FOSC has access to the Oil Spill Liability Trust Fund to fund all government response costs. In addition, the FOSC can immediately access the National Strike Force; and other special teams such as the EPA's Emergency Response Team, NOAA Scientific Support Coordinators, and the Navy's Supervisor of Salvage resources to support the local response. The FOSCs are supported at the regional level by Regional Response Teams (RRTs), which are comprised of representatives of 16 federal agencies and states within the region. The RRTs are in turn supported at the national level by the National Response Team (NRT), with national level representatives from the 16 supporting agencies and is responsible for national coordination, planning, and policy development. The National Response System is the composite of this multi-level, interagency preparedness and response system.

In the vast majority of oil spills the response organization is jointly commanded by more than one entity with jurisdictional or functional responsibility for clean-up operations. This type of command is called a Unified Command in ICS parlance and it is absolutely essential to successful response operations. The make-up of a Unified Command is determined on a case-by-case basis, but typically includes the FOSC, State On-Scene Coordinator (SOSC), and the responsible party (RP). Unified Command links the varying levels of response organizations and provides a forum for these organizations to jointly develop response objectives.

In rare scenarios such as the one that unfolds in this paper, the sheer magnitude, complexity or operational intensity of the incident is more than the local Unified Command can effectively manage. The NCP defines this type of spill as a spill of national significance or SONS. To provide the strategic coordination and support of the FOSC during a SONS the Coast Guard employs a National Incident Command (NIC) structure closely modeled after the National Interagency Incident Management System (NIIMS) ICS "Area Command." The tremendous implications of the strategies developed by this organization demand a high-ranking individual to lead the NIC. The Coast Guard employs its flag officers to serve this role. Similar to the Unified Command at the FOSC level, the NIC will establish a corresponding Unified Command to include representatives at the executive level. Despite its seniority, the primary function of the NIC is not to supplant the FOSC, but to support and provide strategic direction for such tasks as public relations at the national level and allocation of critical resources. Execution of tactical operations and coordination remains the responsibility of the FOSC and the on-scene Unified Command.

Employing ICS and the NIC to manage the incident enables the NRS to more quickly gain control over the situation. Backed by laws such as the Clean Water Act and Oil Pollution Act of 1990, the NRS has the flexibility to combine government and private resources to combat the oil spill. The NRS is a time-tested system designed for and experienced in leading the type of incident portrayed in our scenario.

Scenario advanced

With the exception of incidental spills during natural disaster recovery, the NRS is the predominant system for the allocation of federal resources to recover from the impact of an oil spill. However, with national attention focused on redefining the federal government's role in responding to terrorist attacks, the management of a major oil spill may be changed, leaving questions never before faced by the NRS. The President's proposal to develop a Department of Homeland Security (DHS) and accompanying National Strategy for Homeland Security place an emphasis on the role of FEMA in establishing DHS' plan for managing the consequences of a terrorist attack. (OHS, 2002) As keepers of the FRP, FEMA will likely endorse the plan for organizing the federal government's response to such attacks. However, if the impact of an attack is predominantly a major oil spill, the FRP may actually complicate the government's role. To illustrate this point, we'll advance our scenario and, using existing protocol, place FEMA as the lead agency for coordinating recovery efforts.

Approximately four hours into the response effort, the FBI informs the Coast Guard that they had intelligence to support a conclusion that the cause of the incident was intentional. The explosion heard by the terminal manager was deliberately caused by Al-Qaeda operatives. Somehow Al-Qaeda sympathizers were able to enter the facility and plant timed explosives along the affected tanks as well as the collapsed wall of the secondary containment. Due to the tremendous impact, the State requests and receives a major disaster declaration from the President under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act). The very act of terrorism mandates a Federal response and influenced the President's decision in our scenario. The declaration triggered FRP activation to coordinate all Federal response actions associated with the incident. FEMA issues a mission assignment to the Coast Guard to activate Emergency Support Function (ESF) #10 (Hazardous Materials), per the FRP, and to do all that is necessary to remove the oil from the environment. The NRS will continue its response management activities through ESF #10. However, the Federal resources necessary to implement security may compete with the same resources used for recovery activities; as was seen in the World Trade Center attack when Coast Guard port security resources competed with ESF 10 activities. (NRT, 2002).

Critique of the NCP-FRP response

The Presidential Disaster Declaration and subsequent activation of the FRP results in numerous changes to the response. It results in the combination of the National Response System used for oil and hazmat response with the system used for response to terrorism under the FRP and Concept of Operations Plan (CONPLAN). However, the combination of these plans and their corresponding response systems creates numerous legal, political and organizational challenges; the most significant of these are discussed below.

Changes in lead agency roles. "Who's in charge?" perhaps the most common issue raised during a response. This is particularly important in a transition from a NCP response to a FRP response. The response shifts from a single federal lead (i.e., the FOSC) to a shared federal lead with certain agencies responsible for specific aspects of the response. FEMA is the lead for Consequence Management and charged with coordinating all federal support to the affected State(s), however, FEMA uses a response structure that places certain agencies as the lead for various support functions. This action seemingly dissolves the significance of the FOSC's role. Moreover, FEMA's support structure places the state and local government in the lead, with the federal government providing a support role. This contradicts the federal government role for major oil spills whereby the FOSC is mandated to direct all private and federal, state and local government resources (cite CWA). This becomes critically important whenever an incident affects more than one state. In FEMA's organizational model, it splits the response, giving each

state the opportunity to receive separate disaster relief and assigning each state its own Federal Coordinating Officer (FCO) to provide support. However, if the disaster is a single oil spill, two FCOs could find themselves competing for critical resources. The NRS resolves this by empowering a single FOSC, supported by a NIC, to allocate resources between two states. To resolve this potential conflict, the NRT should work closely with FEMA to reconcile the lead agency role for terrorist attacks resulting in major oil spills. Additionally, the Coast Guard and EPA should formally partner with FEMA in developing a single federal plan that recognizes these critical lead-agency issues.

Conflicts resulting from the crisis management/ consequence management structure. Another element of complexity that arises in terrorist incidents is the dual Crisis Management/Consequence Management structure functioning as the operational command and control of the incident. This arrangement was created by Presidential Decision Directive 39 (PDD-39) and has also led to the chronic issue of "who's in charge." Many studies indicate that Crisis Management and Consequence Management are likely to be concurrent activities during a terrorism incident, resulting in half of the response led by the federal government (namely, the FBI), and half led by the State with support from FEMA. While the US Government Accounting Office (GAO, 2000) sees this as a situation where the federal, state and local roles need to be clarified in order to avoid confusion. The Center for Strategic and International Studies (CSIS, 2000) is far more critical of the arrangement, indicating it is simply unworkable in practice.

Many reports conclude that this arrangement will result in conflicting priorities. The FBI priority is on law enforcement while FEMA focuses on public safety and continuity of government. These objectives may come into conflict and result in disputes that could hamper effectiveness of a response. This disparity is further amplified when compared to an oil spill response where the focus of the FOSC would be on public safety and mitigation of the hazard. The needs of law enforcement to control entry to and from an impacted area could conflict with the strategies of the FOSC. Although the NRS includes the Department of Justice as a member agency, the agreements between law enforcement and the FOSC to work together during an oil spill have focused on incidents of a criminal nature and rarely assume an overall FBI lead. Consequently, the NRS is unprepared to coordinate a major oil spill response alongside the FBI that will claim co-leadership per PDD-39. The NRT should work to reconcile this gap between PDD-39 and the goals of the NCP. Furthermore, the Coast Guard and EPA should more closely partner with the FBI and conduct joint oil spill exercises involving the FBI in their lead role. In the longer term, the Coast Guard and EPA should work alongside FEMA and the FBI to ensure a single governmental response plan includes the resolution of these issues.

Two systems for obtaining resources. Because of the introduction of numerous additional agencies unfamiliar with the response process under the NCP, another problem is the failure to recognize the role and authority of the FOSC for obtaining federal resources. During the Weapons of Mass Destruction (WMD) exercise TOPOFF 2000, prior to activation of the FRP the Coast Guard FOSC requested DOD assets in support of the response and offered CERCLA funding to finance these resources. However, the DOD chose to wait until a Presidential Disaster Declaration was issued before they committed resources. Failure to recognize the authority of the FOSC resulted in a delay of 24 hours in deploying these assets in the field (NRT, 2001). This lesson learned is indicative of the confusion that reigns whenever two separate systems for obtaining resources are merged.

Some agencies that are common to both the FRP and NRS adhere to separate rules for allocating their resources to a response. For example, the DOD will offer some of its resources such as the Navy Supervisor of Salvage to an FOSC without delay. Other valuable DOD assets, however, can only be made available in support of a response under the FRP. The NRT should work alongside FEMA to ensure the full scope of federal resources is equally available to both an NCP and FRP response. This action would ensure that whenever an incident has the potential for transitioning from plan to plan, the resource allocation is unaffected.

Industry liability. One of the successes of the NRS is the spirit of cooperation between the responsible party (RP) and the government in responding to an oil spill. This cooperation is built, in part, upon the trust the petroleum industry has in the government's ability to reimburse its costs beyond its limit of liability. In our scenario, the facility owner is a victim of terrorism. In practice most responsible members of the petroleum industry would willingly contribute money and resources to the response. Given its training and access to spill response resources industry plays a vital role in ensuring a rapid and efficient recovery. In fact, OPA 90 mandates a responsible party to provide all reasonable cooperation and assistance in connection with a removal (33USC2704(c)). However, OPA 90 sets a limit to the amount an RP must pay for removal and provides a means for RPs to recoup excess expenditures from the OSLTF. This liability scheme enables RPs to continue contributing to a response without disrupting the operation by pulling out once its liability limit is reached.

The long-term issue, however, is the complete relief of industry's liability from an act of terrorism. The Clean Water Act (33 USC 1321(f)) as amended by OPA 90 makes a responsible party (RP) liable for damages and removal costs related to an oil spill unless the RP can prove the spill was caused by, among other things, an act of war or an act or omission of a third party. In fact, the RP must show the incident was caused *solely* by an act of war or an act or omission of a third party as a key element of its defense. In cases such as our scenario, the RP would be expected to pay the removal up front and present its case to the government for reimbursement after the fact. Once the FRP is activated, the federal funding scheme shifts to the Stafford Act. The Coast Guard National Pollution Funds Center would negotiate with FEMA the point at which the OSLTF would be "turned off" and further actions by the FOSC would be funded by the Stafford Act. One important consideration in that negotiation is determining which fund or agency would consider the RP claim for reimbursement. Otherwise, it is possible that the transition from the OSLTF to the Stafford Act fund could cause unintended complications for the RP that is seeking reimbursement for its response costs, especially if the majority of the government's response effort was funded from the Stafford Act. Because this has not been resolved to date, the National Pollution Funds Center should work with FEMA to develop a funding agreement for Stafford Act responses whereby the OSLTF could remain available for RP claims whenever they exceed their liability or are relieved of liability. Furthermore, such agreement should consider a means for reimbursing the OSLTF with Stafford Act funds for such claims.

Role of the National Incident Command in a Federal Response Plan activation. The role of the NIC during a major oil spill is to directly support the FOSC with the issues discussed earlier. Similarly, under the FRP, the Regional Chair of ESF #10

is charged with supporting the FOSC and acting as intermediary between the field response and the FCO. Given these similarities in role it makes sense to position the NIC as the ESF #10 Regional Chair. As such, the NIC will retain the responsibility for overall strategic management of Coast Guard assets in support of FEMA's operations. The role of the NIC takes on even more importance during a consequence management response where a SONS type event is involved. Different from an NCP response, the priorities and objectives set by the NIC during an FRP response will be predicated in large part by FEMA's mission assignments. Consequently, the NIC must:

- Balance and allocate critical resources based on FEMA priorities
- Ensure that the Coast Guard's participation and support is properly managed
- Ensure the Federal Coordinating Officer (FCO) objectives are met with minimal disruption to Coast Guard statutory responsibilities
- In concert with the FCO, communicate with affected parties, stakeholders, and the public

The challenges faced by those in the NIC during an FRP activation with a corresponding SONS incident are numerous. On-scene Unified Command teams may find their response operations impacted by higher priority response objectives at the strategic level and a drain on their traditional pool of personnel and equipment resources. A well- trained National Incident Command team that has representation from all major organizations offers responders the best opportunity for coordinating objectives, priorities and critical resources.

Conclusion

In conclusion, the future of the NRS for responding to oil and hazardous substance releases will be largely influenced by the President's national strategy for homeland security. The President recognized a patchwork of federal response plans was not in the best interest of the public and mandated the creation of a single, all discipline plan. Based upon the President's design for the new department, FEMA may lead the efforts to create this all hazard plan. However, there are numerous agencies that have a critical role in emergency response in addition to FEMA that have significant stake in the outcome of the integration of federal response plans. The strategy recognizes the overall benefit by consolidating federal plans is to eliminate the distinction between crisis management and consequence management. Similarly, this paper highlights the need to eliminate the distinction between two systems for consequence management. Specifically, the EPA and the Coast Guard, as stewards of the NRS, must engage FEMA and the FBI early on in the process of developing the one plan. The recommendations in this paper may serve as a starting point for FRP and NCP reconciliation.

Biography

LCDR Larry Hewett is the Chief, Exercise and Evaluations Branch, in the U.S. Coast Guard Headquarters Office of Response in Washington, DC. He is a 1983 graduate of the University of Tampa, earning a Bachelor of Science in Marine Biology, and holds a Master of Environmental Management degree from Yale University. He has 17 years experience in the Marine Safety Field, specializing in the prevention, preparedness and response to marine environmental oil and hazardous materials spills.

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