

Adequacy of Federal Marine Salvage Policy in the United States

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Introduction

The inherent unpredictability of work at sea creates both a physical risk to mariners and a financial risk to vessel owners. This potential for loss has driven a persistent effort to increase vessel seaworthiness, improve navigational safety and reduce financial exposure. Unfortunately, incidents involving peril to crew and capital persist. In addition, society must bear costs resulting from environmental degradation or disruption of other economic activities. When marine casualties do occur, and after initial efforts to preserve life have been undertaken, it is critical that the financial and social welfare impacts of the incident are minimized.

One means of reducing these costs is to maintain a professional salvage capability. In the United States this service is provided primarily by the private sector. In order to preserve the public interest, the federal government has fostered this industry by adopting the International Convention on Salvage, contracting with private salvors to support the US Navy, and requiring tank and large non-tank vessels to maintain standing agreements with salvors. In addition, the federal government has created two mechanisms to reinforce a private response: the Oil Spill Liability Trust Fund under the Oil Pollution Act of 1990 and the Salvage Facilities Act which directs the Navy to provide equipment and personnel if private resources are inadequate. However, there are three areas of weakness in current salvage policy that could lead to a response failure: physical and human capital investment, friction between the private and public sectors under Unified Command, and a lack of unequivocal responder immunity (National Research Council, 1994).

In this paper, the term salvage will refer to any effort to prevent the loss of a vessel and its cargo due to collision, grounding, or foundering in order to limit financial loss, remove a hazard to navigation, and limit environmental impacts. The purpose of this paper is to explain

how the United States government has encouraged the continued existence of a private salvage industry and has bolstered this capacity to protect the public interest where a threat to the environment exists. The analysis will identify policy gaps that could lead to response failures. This paper will be of value to professional salvors and other maritime professionals, public officials and policy makers who can use it to focus their efforts to prevent response failures.

Background

The market for salvage services is imperfectly competitive; there are few suppliers, a single consumer, and a contractual agreement is entered into during a stressful and dynamic period in which neither party has perfect information. For centuries government has intervened to ensure that the market clears at a price acceptable to both parties. In common-law nations, admiralty courts have traditionally arbitrated salvage cases and determined award. Under this system, a salvor is awarded a percentage of the salvaged value of the vessel and cargo to be determined by arbitration. In the late 19th century, an English insurance clearinghouse, Lloyds of London, established a system of mediation between salvors and owners which used Admiralty law principles to settle out of court, thereby reducing costs. The Lloyds Open Form salvage contract became the world standard for “no-cure-no-pay” agreements which provide for compensation only if the salvage is successful.

As ships shifted from sail and coal to fuel oil bunkers and tank vessels became ubiquitous, the potential for large pollution incidents increased dramatically. In addition, social changes increased the perceived cost of pollution incidents, and oil spills in particular. By the late twentieth century there was a growing recognition that a gap existed between the social cost due to pollution and the private compensation for salvors. As a result, there was the potential for inadequate response from a social perspective. Industry and government efforts to address this

risk resulted in modifications to the Lloyds Open Form contract and the 1989 International Convention on Salvage under the auspices of the International Maritime Organization of the UN; a treaty to which the United States is signatory. The convention codifies traditional Admiralty law principles and incorporates a mechanism to compensate a salvor for protection of the environment regardless of the overall salvage outcome. Similar language exists in the 2011 iteration of the Lloyds contract in the optional Special Compensation, Protection and Indemnity Club clause, commonly known as SCOPIC.

In parallel to the international efforts, the US government sought to address concerns about the adequacy of private salvage capabilities in the United States. In 1994 the Transportation Research Board of the National Academy of Sciences completed an update to a 1982 assessment of salvage capacity in the United States (National Research Council, 1994). The committee found that although there had not been any instances since 1982 of a failure of the salvage industry to respond to an incident, there were a number of potential points of failure. The report identified several policy and capacity gaps in US salvage response capability.

Three of the gaps in civil salvage policy identified in the report remain problematic today. The first was an inadequate number of salvage masters being trained to replace older professionals as there were an insufficient number of incidents to attract mariners to the profession. A related problem was the decline in dedicated salvage equipment such as salvage ships as the industry became unprofitable in the 1980s as marine casualties became less frequent (National Research Council, 1994). The second problem was the rise of collaborative decision making in casualty response under the Unified Command System; a standardized incident response coordination mechanism. This, the report argued, meant that as government became ever more involved in decision making, the salvor was relegated to a consulting position within

the incident command system. According to the report this change increased risk and reduced reward for salvors. The third gap, which today is probably the most significant, was the exposure of the salvor to liability associated with environmental damage. According to the report, “The current liability atmosphere, charged by the threat and expense of marine pollution related to a vessel casualty, has significantly increased the salvor’s financial risks and the costs of providing salvage assistance.” It went on to note that “the standards for compensation have not kept pace with these increased risks and costs.” The report argued that absent policy reform and clarification of risks, liability, and remuneration for salvors, there was the potential that insufficient private resources would be devoted to salvage resulting in ineffective response (National Research Council, 1994).

In the wake of the catastrophic oil spill caused by the grounding of the T/V “Exxon Valdez” in 1989, the US Congress passed the Oil Pollution Act of 1990. This law sought to address some of the concerns identified in the 1994 National Research Council report. However, the current regime may still be insufficient to ensure a socially optimal provision of salvage services in all circumstances. Specifically, lack of clarity in liability language and the reduction in a salvor’s decision making power may have led to an increase in risk to the salvor without a commensurate rise in compensation. This could lead to a delay in response to a marine casualty while agreeable terms are negotiated. The remedy being actively pursued by industry and lawmakers is to reduce the risk of civil litigation against a salvor not guilty of gross negligence or willful misconduct. However, in the United States, a comprehensive policy regarding liability in marine salvage remains elusive. This analysis will explore the extent to which these deficiencies exist and affect the adequacy of salvage response in the United States.

Methodology

The analysis will begin with an exploration of the legal and regulatory regime under which the salvage industry operates. The second section will seek to explain how the industry functions in practice. The final section will present policy recommendations to prevent future market failures based on these findings. This research will incorporate interviews with, and public statements made by, industry leaders, legal professionals and representatives of the federal government. In addition, the academic literature, government reports, conference proceedings, and the Federal Register will be relied upon.

This analysis will identify public interventions in the market for marine casualty response services and determine whether or not these interventions are sufficient, excessive or inadequate based primarily upon data from interviews and reports. As major spill responses and salvages are unique and rare, statistical and econometric methods would have limited value. While political-economic theory will provide the foundation for my analysis, this thesis will not be a data-centric economic analysis. Spill response and debris removal are distinct from salvage in law and will not be included in this analysis. Similarly, only civil salvage will be considered as military salvage involves unique considerations and may have very different motivations, funding streams and desired outcomes.

The 1994 National Research Council report “Reassessment of the Marine Salvage Posture of the United States” will be used as a baseline to help frame the project; however, this paper will seek to identify the current state of affairs in marine casualty response in the United States rather than conduct a historical comparison. Expert interviews will be used to describe the current state of affairs in the US salvage industry and to assess the degree to which problems identified in the 1994 assessment have been addressed.

International Convention on Salvage 1989

Admiralty law has its origins in Roman civil law and developed in parallel to the English common-law system (Maraist, et al., 2010). It was in turn spread to the colonies and retained after the American Revolution. In subsequent years an extensive body of Admiralty law was built on legal precedents. The International Convention on Salvage of 1989 (hereafter referred to as “the Convention”) codifies general maritime law, and in 1996 the Convention became enforceable United States law. Although the Convention itself is rarely cited in salvage cases in the United States, it provides a valuable summation of the applicable principles of salvage law (Davies, 2008). In addition to compiling traditional Admiralty law principles, the Convention incorporates revolutionary language on compensation for a salvor’s efforts to prevent or reduce environmental damage. There is an extensive literature on the treatment of salvage under Admiralty law. What follows is a brief discussion of the salient aspects of this law as it relates to incentives to provide salvage services.

Under Admiralty law, a salvor is entitled to a portion of the value of the vessel and cargo that he has successfully rescued from peril at sea. In order to be eligible for reward, the salvor must not be acting under contractual obligation entered into prior to the casualty (Kennedy, 1907). For example, if the master and crew of a vessel rescue their own ship, they are not entitled to salvage award as they are already obligated by their employment to attempt salvage (Maraist, et al., 2010).

The amount of award is determined by arbitration and is intended to compensate the salvor for his efforts without placing an undue burden on the owner of the salvaged property. However, salvage awards are intended to be generous in order to encourage future salvage efforts; Article 13 of the Convention states that “the reward shall be fixed with a view to

encouraging salvage operations” (International Maritime Organization, 1989). The award functions as a subsidy to ensure the continued existence of a private investment in salvage (Swan, 2009).

The salvage award itself is determined by a set of 10 factors listed in Article 13 of the treaty: the salved value of property, skill and effort in protecting the environment, degree of success, nature of danger, skill and effort of salvor in protecting life and property, operational cost, risk to salvor’s personnel and equipment, promptness of response, availability of salvage equipment, and the value and state of readiness of salvor’s assets (International Maritime Organization, 1989). The factors listed above are not listed in order of importance and there is no specified formula for determining the award. However, from a public policy standpoint, several of the factors are particularly notable.

The second factor encourages the court to consider the salvor’s efforts to protect the environment in determination of award. Absent such language the salvor would not have an incentive to invest in environmental protection efforts beyond some level of due care required to avoid criminal or civil liability. The inclusion of this factor in determining the award encourages the salvor to undertake best management practices in limiting pollution, even if this increases operational costs because this investment will be reflected in the reward. Although this does not encourage the lowest cost response from the perspective of the vessel underwriters and the salvor, it encourages efforts to minimize the social cost of the incident.

Another significant aspect of the award formulation is that the salvor is to be compensated for his capital investments in salvage equipment and floating stock. This serves as an incentive for private salvors to invest in specialized equipment by compensating them for demurrage, in addition to actual use during the salvage operation. This helps to defray the costs

incurred by the professional salvor between salvages and thereby encourages him to remain ready to respond to a marine casualty.

Incorporating environmental protection into determination of salvage award goes some way to limiting the social cost of a marine casualty. However, as a salvor is only eligible for award if the salvage is successful, this language is insufficient to protect the public interest. If the salvor were to determine that the expected value of award was less than his cost, he would either not respond or would abandon the effort to minimize loss. To take a simple example, a risk neutral salvor facing a cost of 100 and a probability of success of 0.8 would require an award greater than 125 to respond as the expected return must exceed the cost¹. Since a salvage award cannot exceed the salvaged value of the property, it is clear that if the distressed vessel and her cargo were not worth more than 125 the salvor would anticipate a loss and refuse to intervene. In order to ensure that private industry would provide adequate salvage effort, an additional incentive was required.

The Convention sought to accomplish this with special compensation for environmental protection in the event that a traditional salvage award was inadequate. This mechanism was detailed in Article 14. If the salvor prevents or minimizes damage to the environment but fails to recoup his costs under Article 13 provisions, he can be compensated up to 30% of costs by the vessel owner. In exceptional circumstances, as determined in arbitration, the salvor could be compensated up to 100% of costs (International Maritime Organization, 1989). This provision serves to reduce the salvor's risk and thereby encourage response that might otherwise be foregone. To return to the previous example, a salvor with a cost of 100 and a probability of failure of 0.2 faces an expected value of loss of -20. If, however, he can be compensated 30% of

¹ EV = probability of loss plus probability of profit = $-100(.2) + 25(.8) = -20 + 20 = 0$, therefore award must be >125

cost, the expected value of loss falls to 14. Under Article 14, a salvor would be willing to respond with an anticipated award as low as 117.5 rather than 125².

In reality, of course, the salvor faces significant uncertainty about costs, probability of success, and salvaged value. This simplified example does, however, illustrate the incentive provided by special compensation, all else being equal. What becomes clear is that while Article 14 may encourage some added salvage effort, it certainly does not encourage the salvor to intervene in all circumstances, as losses are only partially compensated in the event of failure.

Lloyds Open Form

While the treaty and the precedents of Admiralty law provide the basis for arbitration of salvage claims, it is important to note that often salvage award is determined outside of court in order to reduce transaction costs. The most commonly used standard contract for salvage operations is the Lloyds Open Form Salvage Agreement, in use since the late 19th century (Swan, 2009). The Lloyds Open Form (LOF) is essentially an agreement to commence a salvage operation on a no-cure-no-pay basis with award to be determined in arbitration at Lloyds of London in accordance with English Law, and thus the International Convention on Salvage 1989 (Salvage Arbitration Branch, 2011).

The most recent iteration of the contract, LOF-2011, allows a salvor to invoke the Special Compensation, Protection & Indemnity Club clause known commonly as SCOPIC. This clause allows remuneration for efforts to protect the environment and goes beyond the Article 14 language of the International Convention on Salvage. Specifically, the clause allows for Article 14 compensation with a 25% markup on expenses billed at pre-determined tariff rates for

² $EV = -70(.2) + 25(.8) = 6$, therefore at 125 the salvage is profitable. The break-even point under Article 14 would therefore be $-70(.2) + 17.5(.8) = -14 + 14 = 0$ so salvage award must be >117.5

equipment, personnel and consumables published in SCOPIC Appendix A (Salvage Arbitration Branch, 2011, b.).

While SCOPIC clarifies the application of Article 14 compensation, it does not correct the fundamental incongruity between a salvor's compensation and the social cost of pollution. In a speech to the American Salvage Association membership, US Coast Guard Admiral Keith Taylor argued that putting "the moral imperative first is a good business model" (Taylor, 2012). While this may be true in many ways, it should be noted that although a salvor may wish to intervene to prevent environmental damage, his fiduciary responsibility is to his company's owners, not to the public at large. It would be irresponsible to invest resources while anticipating a loss.

While special compensation under Article 14 and SCOPIC provides a safety net for a salvor who fails to obtain sufficient compensation under Article 13 provisions, it does not encourage him to intervene in all circumstances. Therefore, reliance on private industry to respond to marine casualties that threaten pollution does not ensure an adequate response from the perspective of the affected public solely under the provisions of the Convention. In the United States there are a number of other legal and regulatory mechanisms to encourage salvage effort and address this concern.

Salvage Facilities Act

The US Navy is authorized by the Salvage Facilities Act to use military assets to respond to marine casualties and conduct salvage operations of both public and private vessels in order to protect the environment. This can be accomplished by funding a contractor, supplementing private assets with Navy owned equipment and personnel, or by direct intervention; the Navy is authorized to immediately expend funds as necessary. These costs can be recouped on a time &

materials basis or, in rare circumstances, via a salvage award (Interviews, 2013). The Navy, however, cannot compete with private salvors and is only allowed to intervene when private assets are inadequate to respond to the casualty (10 U.S.C 637, 1996).

The US Navy Supervisor of Salvage (SUPSALV) is responsible for implementation of the Salvage Facilities Act. In the context of civil salvage, SUPSALV is responsible for supplementing commercial response to marine casualties directly, contractually and by maintaining the Emergency Ship Salvage Materials (ESSM) equipment caches. In the event that commercial assets and responders become available, SUPSALV is to withdraw (Malley, 1993). According to Captain Matthews, current commander of SUPSALV, the role of the Navy in civil salvage is to “bridge the gap” by functioning in “a first responder role when required” or to “provide unique, specialized capability” to supplement the private sector (Matthews, 2013). In 2012 the American Salvage Association and SUPSALV signed a memorandum of understanding to increase cooperation between the Navy and commercial salvors to improve preparedness for joint operations (Matthews & Beaver, 2012).

The Salvage Facilities Act guarantees that in the event of a catastrophe beyond the abilities of the private sector, the Navy will provide additional resources to ensure an adequate response. The act forbids the Navy from competing with private salvors, thereby limiting the public resources committed to salvage operations and encouraging the continued existence of professional salvage firms. It simultaneously ensures that the public interest in reducing or preventing harm to the marine environment is protected. In addition, the Navy is eligible to seek salvage award limiting the impact of intervention on public finances and potentially allowing for additional revenue for the treasury. The recent memorandum of understanding between SUPSALV and the American Salvage Association indicates a desire to streamline the process of

a joint public and private marine casualty response. While the Navy is available as a last resort, under normal conditions the federal agency directly involved with salvage efforts is the US Coast Guard.

US Coast Guard Authority

In the wake of the 1989 grounding of the M/V “Exxon Valdez” and resultant oil spill, the US Congress passed the Oil Pollution Act of 1990 (OPA-90), an amendment to the Federal Water Pollution Control Act intended to clarify roles and responsibilities in oil spill prevention and response (United States Coast Guard, 2012). The act, and subsequent amendments, resulted in a number of significant changes for salvors. The first was the establishment of the billion dollar Oil Spill Liability Trust Fund, an emergency funding mechanism for spill response and prevention. The second, and related development, was that salvage operations were now conducted primarily within the context of the National Incident Management System. The third major development was the requirement, under OPA-90 and associated Salvage & Marine Firefighting Regulations, that tank ships pre-arrange salvage services to be specified in their Vessel Response Plans.

The Oil Spill Liability Trust Fund

Management of the Oil Spill Liability Trust Fund was assigned to the Coast Guard by Executive Order 12777 which was authorized to maintain a \$50 million emergency fund immediately available for response (Bush, 1991). The Coast Guard was authorized to use these funds to pay removal costs and damages associated with oil spills or “substantial threats of oil spills to navigable waters of the United States” (National Pollution Funds Center, 2006). The fund, however, is only to be used in the event that the responsible party (RP) does not adequately respond to the incident. Coast Guard Federal On-Scene Coordinators (FOSC) can, at their

discretion, federalize the incident response and access the fund to ensure prompt and appropriate action. The FOSC is responsible for tracking all costs which the Coast Guard will attempt to recoup from the RP to recapitalize the fund (National Pollution Funds Center, 2006).

In the event that an RP cannot be found or cannot fund a salvage operation and remove the threat of oil pollution, the FOSC can directly hire a salvor to intervene. The mechanism by which this occurs is known as a Basic Ordering Agreement. The Coast Guard maintains a list of contractors that wish to participate in the program and have approved credentials and tariff rates. If an FOSC deems it necessary, a salvor can be hired directly on a time and materials basis using the \$50 million emergency fund under the OSLTF (National Pollution Funds Center, 2006). This program addresses a critical gap in salvage law under the treaty discussed earlier. The fund ensures that a commercial salvor can be called upon to respond to any marine casualty with the potential to cause pollution, regardless of the prospects of receiving a salvage award and even in the absence of a contract with the RP. In essence, if the market cannot provide an incentive for a private solution, the federal government maintains a funding mechanism to ensure a rapid and robust response. This does, however, assume that private salvors are available to intervene. The advent of Vessel Response Plans was one means of addressing that concern.

Vessel Response Plans

Another important aspect of OPA-90 from a salvage perspective is the requirement that tank vessels carrying oil maintain Coast Guard approved Vessel Response Plans. In 2008 the Coast Guard issued Salvage and Marine Firefighting Requirements for Vessel Response Plans that require tank vessel owners to establish contracts with professional salvors in order to expedite response during an incident (Lantz, 2010). The SMFF requirements, found in 33 CFR § 155 specify what salvage resources must be available and the allowable response times. For

example, if the casualty occurs in inland or coastal waters of the continental US an on-site salvage assessment is required within 6 hours, emergency towing within 12 hours, and diving support within 18 hours (33 CFR § 155.4040).

The planholder must demonstrate coordination of the provision of these services with a professional salvor who has agreed to be included in the VRP. In addition, in 33 CFR § 155.4050 the Coast Guard specifies 15 attributes the planholder must consider when establishing a salvage team for the VRP. These attributes ensure that the contractors listed in the plan are professional salvors with appropriate expertise and equipment. The SMFF regulations also require that the planholder conduct drills, both tabletop and in the field, at regular intervals to demonstrate that the plan is workable in practice and the listed assets are actually available in the event of an emergency (33CFR§155.1042).

Although these Vessel Response Plan requirements currently only apply to tank vessels carrying oil, the Coast Guard is in the process of expanding the regulations to include non-tank vessels larger than 400 gross tons. A notice of final rule making is anticipated in June 2013 (American Salvage Association, 2013).

Unified Command

It is important to note that the Coast Guard does not conduct or fund salvage operations per se. However, because modern vessels almost always have hydrocarbons onboard, and the Coast Guard has authority to coordinate response when there is a substantial threat of oil pollution, they are involved in nearly all salvage operations (Interviews, 2013). If the potential for pollution exists, the Coast Guard will assign a FOOSC and establish a Unified Command under the National Incident Management System. The current form of the National Incident Management System (NIMS) was established by the Department of Homeland Security in 2004

as a scalable, multi-threat, response coordination structure (United States Coast Guard, 2004). There is an extensive literature on this system. For the purposes of this paper, it is sufficient to note that the salvor is answerable to Unified Command where the potential for pollution exists and that a funding mechanism, the Oil Spill Liability Trust Fund, exists to finance these operations when a contract between the RP and the salvor is non-existent or is determined to be inadequate by the FOSC.

It is also important to note that other streams of federal funding may be coordinated through Unified Command including debris removal and remediation operations funded through National Oceanic and Atmospheric Administration's Office of Response and Restoration, the Environmental Protection Agency or the US Army Corps of Engineers (Transportation Research Board, 2008). Although operationally debris removal can be similar to salvage, these operations are distinct from salvage in law. Salvage is an attempt to save property of value from peril while preventing or minimizing pollution from the casualty. Debris and wreck removal are generally not as time sensitive as salvage and therefore have different motivations, regulations and funding streams.

Policy Interactions

Overall, the United States has a robust national salvage policy that encourages the existence of a private market for salvage services, thereby limiting the impact of marine casualties on the public purse. Salvors, under the 1989 International Convention on Salvage and traditional Admiralty Law, are eligible to receive a generous salvage award, explicitly intended to encourage continued private sector investment. Special compensation under Article 14 and the Lloyds Open Form SCOPIC clause provide a safety net for a salvor and encourage efforts to prevent pollution.

Through the US Navy Supervisor of Salvage and the Oil Spill Liability Trust Fund managed by the US Coast Guard, the federal government maintains the ability to supplement a private response if that response is not deemed adequate by the FOSC, thereby protecting the public interest in the event of a marine casualty. The Navy can recoup its costs by claiming a salvage award and the USCG can sue the RP to replenish the OSLTF. Salvage operations, because of the threat of pollution, are conducted under Unified Command which brings together the RP, all relevant public agencies and responders to coordinate response efforts, funding streams, and works to reduce jurisdictional friction between public agencies.

Although the existence of the Unified Command may seem at odds with traditional salvage contracting and award, in practice it is complementary. For example, the Lloyds Open Form contract provides a highly effective funding stream that allows the salvor to procure and dispose adequate resources with an eye to cost effectiveness within the context of Unified Command (Interviews, 2013). Any additional burden placed upon the salvor by Unified Command could be taken into account in determination of a salvage award as a reasonable cost incurred by the salvor. The Unified Command system has not discouraged salvage effort; rather salvors have learned to operate effectively within this system (Interviews, 2013)

Policy Gaps

Government reports and interviews with experts in the field indicate that there are several policy failures that could lead to an inefficient response and should therefore be addressed by policy makers. In 1994 the National Research Council issued an assessment of US marine salvage capacity that identified a number of capacity and policy problems (National Research Council, 1994). Of those that related to civil salvage, three remain particularly relevant today.

The first is a concern that salvors and government agents will not work together smoothly in the Unified Command System leading to inefficient salvage outcomes. The second is that there are insufficient salvage assets and experienced personnel available to respond to large-scale casualties in a timely fashion. The third, and potentially most significant, is that responder immunity language in law is insufficient to protect salvors from torts and that as a result, salvors may be unwilling to intervene in some casualties. Interviewees confirm that these gaps are currently being addressed to some degree; however, they are all potential points of failure and should be monitored and addressed proactively.

Public-Private Friction

According to the 1994 NRC report, “Decision making in response to vessel casualties, once the purview of salvors, owners, and insurers, has changed significantly... decision making at the site of a casualty now relies on the consensus of a unified command [which] may delay time-critical salvage decisions and tends to restrict the salvor’s actions” (National Research Council, 1994, pp. 29, 30). According to salvors, this can be frustrating at times, especially if the Coast Guard FOSC is not experienced in salvage. However, over the course of the past two decades of working under this system, salvors and the Coast Guard have learned to trust one-another and friction has been reduced (Interviews, 2013). In large part, this improvement is due to efforts within the Coast Guard to ensure that FOSCs are knowledgeable about salvage. One means of accomplishing this has been the creation of Port Security Specialist position, a civilian position that may help develop long-term regional relationships between salvors and the Coast Guard FOSC (Interviews, 2013). In general salvors agree that friction exists between the private and public sectors in Unified Command but that through education and experience, the situation continues to improve.

Insufficient Assets

In 2008 the National Academy of Sciences sponsored a table-top exercise to test the effectiveness of a large-scale salvage and harbor clearance operation. The scenario was an attack on a car-carrier and a container ship simultaneously using explosives. This resulted in both ships sinking, which blocked the main channels in the ports of Los Angeles and Long Beach. There were a number of smaller vessels damaged collaterally. The US Navy Supervisor of Salvage and its West Coast contractor, Titan Salvage, generated a detailed salvage plan for all of the vessels. A group of experts from public agencies and industry were convened to work through the scenario and identify potential points of failure (Transportation Research Board, 2008).

The exercise revealed that although there would certainly be difficulties in responding to the hypothetical incident, the capacity to salvage the vessels and clear the waterways was present. Most of the problems discussed related to the scale and nature of the incident; for instance, the composition of Unified Command would be far different for a major terrorist incident than a standard maritime casualty. For example, the FBI would have to work closely with the salvor to ensure proper crime scene protocol was followed. For the purposes of this paper, the most important finding at the conference was that with the exception of heavy-lift assets, there was sufficient salvage equipment and personnel available to respond adequately to what can fairly be described as a worst-case event. In regards to heavy-lift capacity, the committee found that “such capability does not currently exist on the West Coast and would have to be contracted and moved from the East or Gulf Coasts of the United States via the Panama Canal or imported from Asia or Northern Europe” (Transportation Research Board, 2008).

In short, the committee found that US salvors possessed or had access to all necessary salvage equipment for a catastrophic maritime event. However, some specialized equipment may not be immediately available in all locations. Interviews with professional salvors indicate that this remains true. For example, while it would be preferable to have dedicated salvage vessels, vessels of opportunity are sufficient when complemented by fly-away salvage equipment (Interviews, 2013).

In addition to material assets, the 1994 report raised a concern over the ageing of the salvage community and the potential lack of competent salvors. The major American commercial salvage firms have solved both problems by expanding overseas. By working worldwide, salvage operators can keep personnel and capital stock working, thereby maintaining proficiency and response capacity. OPA-90 has been instrumental in this shift in that it has raised the standards of US salvage firms, allowing them to be highly competitive in the world market (Interviews, 2013).

Responder Immunity

The most significant gap in federal salvage policy is probably the lack of unequivocal responder immunity. Under OPA-90 “a person is not liable for removal costs or damages which result from actions taken or omitted to be taken in the course of rendering care, assistance, or advice.” This exemption from liability does not apply “with respect to personal injury or wrongful death or if the person is grossly negligent or engages in willful misconduct.” Otherwise, the responsible party is liable for these costs. This language is found in 33 U.S.C 1321(c)(4). The intent of this responder immunity clause is to encourage prompt action by ensuring that contractors responsibly intervening in a pollution incident will not become responsible parties themselves.

In 2010 an explosion on the Drillship “Deepwater Horizon” in the Gulf of Mexico caused a huge and unprecedented oil spill in the Gulf of Mexico and a massive response effort was launched. In the aftermath of the incident, plaintiffs included spill responders along with the responsible party in suits alleging personal injury from oil pollution and the use of dispersants on the grounds that they had acted in a grossly negligent manner (Waldron, 2011). These cases have not yet been resolved and responders have incurred significant cost as a result. According to Jonathan Waldron, legal counsel to the American Salvage Association, “Absent some enhancement to the responder immunity protections, it is doubtful that cleanup responders or emergency responders will again take such immediate and bold response actions at the time of spill incidents absent special indemnities or other protections” (Waldron, 2013).

To date, salvors have not been subject to similar litigation (Interviews, 2013). However, the risk is clear. The potential cost to a salvor, if held liable for oil pollution alongside the responsible party, could dramatically exceed remuneration for services rendered. In the words of Timothy Beaver, president of the American Salvage Association, “We need, as salvors, some confidence that we won’t be responsible for cleaning up a whole coastline” (Beaver, 2012). Firms engaged in salvage in the US today almost universally consider salvage a service-line alongside other core businesses such as commercial diving, towing, or heavy lift services. Most salvors offer salvage as part of a package of services (Interviews, 2013). This diversity of interests alters a salvor’s perceived costs and benefits in the face of unclear liability. If salvage in areas under US jurisdiction was the firm’s primary source of income, it would be more likely to accept this risk as the alternative could be bankruptcy. For a firm with diverse interests, the perceived cost of this liability risk could far outweigh the potential income from engaging in the

salvage (Interviews, 2013). This is true for companies that have diverse service lines as well as diverse geographical operations.

The response industry has formed a coalition to lobby congress for five legislative adjustments that would explicitly guarantee responder immunity. The first would expand immunity to personal injury and wrongful death to protect a responder from both civil and criminal liability. All liability would be borne by the responsible party. The second change would provide “derivative immunity” when acting within Unified Command which would allow the government to extend the immunity it enjoys in emergency response to contractors. The third change would be to explicitly define who is considered a responder and is eligible for immunity. The fourth would force litigants to demonstrate, rather than simply allege, gross negligence. This would eliminate frivolous lawsuits without granting blanket immunity to a responder who has in fact caused harm. The final, and related measure, would require that a litigant compensate a responder for legal costs if gross negligence or willful misconduct were not found by the court. The coalition has been working with Representative LoBiondo (R-NJ2), a member of the Coast Guard and Maritime Transportation Subcommittee of the House Transportation and Infrastructure Committee to include this language in legislation. The coalition is optimistic that the 2013 Coast Guard Authorization Act can serve as a legislative vehicle for these reforms (Waldron, 2013).

Despite the current lack of clarity in responder immunity language, salvors continue to respond to casualties. This suggests that responder immunity concerns are not currently causing a response failure. In general, salvors concur that responder immunity is problematic and should be addressed. However, the degree of risk faced by the salvor is not a matter of consensus. The president of the American Salvage Association argues that in the aftermath of major incidents,

such as the Deepwater Horizon, there will be a campaign of “legal carpet bombing.” The cost to salvors of being drawn into court as a result could be high, and therefore efforts to reduce this risk are important. However, he does not believe that this risk is existential for US salvage firms. “Salvors will respond.” (Beaver, 2013). In sum, if a salvor were to be held liable as a result of weak responder immunity language, it is likely that subsequent casualty response would be hampered until a legal solution could be secured by contractors. However, the risk of a complete failure to respond is low.

Conclusions/Recommendations

In 1994 the National Research Board raised serious concerns about the future of the United States’ salvage capacity. In particular the authors were concerned that a private market for salvage could fail due to lack of profits, failure to invest in equipment or personnel, and failure to protect responders from environmental liability. Today, the salvage industry stands ready and able to respond to even catastrophic events, as demonstrated by the Transportation Research Board’s 2008 exercise and testimony from salvage professionals. This is due in large part to successful efforts to address gaps in policy. The contemporary Lloyds Open Form with SCOPIC provisions, in line with the 1989 International Convention on Salvage, creates an economic incentive to respond to casualties to prevent environmental harm. OPA-90, through the Oil Spill Liability Trust Fund and Vessel Response Plan requirements, has given the federal government the means and authority to ensure that salvors respond decisively to any casualty that could potentially cause oil pollution, even if the salvage would otherwise not be commercially viable for the salvor. In addition to protecting the public interest in environmental protection, these measures have also kept salvors working and thereby prepared to respond as needed. The US Navy Supervisor of Salvage has also fostered a robust private salvage industry

through contracting. It also provides a last line of defense in that it is authorized to bring its substantial assets to bear in the event that private industry is overwhelmed.

This state of affairs is not guaranteed to continue ad infinitum, however. The state of the salvage industry should continue to be monitored to ensure that adequate personnel and resources remain available and any deficiencies can be addressed before a failure occurs. Future research should be conducted to inventory private and publicly owned salvage assets and to identify any deficiencies. The American Salvage Association should continue to work with government partners to ensure that the Unified Command System is as effective as possible during actual casualty responses. Finally, the salvage industry should continue its efforts to clarify responder immunity law to prevent a breakdown of the current system.

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