

# U. S. Coast Guard Federal On Scene Coordinator Role in Vessel Salvage

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## ABSTRACT

*Salvage operations must be conducted with the utmost concern for the safety of personnel, as well as protection of the marine environment, and property. Due to the highly dynamic circumstances involved in salvage operations, there is no standard or foolproof method for responding to a casualty. Therefore, contingency planning and pre-established relationships with industry become indispensable to ensure that informed decision making, maximum responder cooperation and optimum asset coordination. Inherent in contingency planning is having an understanding that the role of the Captain of the Port (COTP) / Federal On-Scene Coordinator (FOSC) during a salvage response is multifaceted. While the COTP/FOSC has federal responsibilities to protect people, property, and the environment, it is achieved only through close coordination of multiple responding agencies, the response/salvage community and their resources. This successful coordination is greatly facilitated through an understanding of FOSC roles and proper use of the Incident Command/Unified Command (ICS/UC) System. This paper also describes the assets and authorities available to the COTP/FOSC during a salvage response, the triggers and overriding issues that would initiate full or partial federalization.*

## INTRODUCTION

Salvage operations must be conducted with the utmost concern for safety of personnel, as well as protection of the marine environment and property. Due to the highly dynamic circumstances surrounding a salvage operation, there is no standard or foolproof method for responding to a casualty. However, regardless of the scenario specific details, there are basic elements of command, control, and communication, as well as Federal, State and Responsible Party (RP) duties common to every salvage response scenario that must be understood and well exercised prior to an actual incident.

The implication of the sports world cliché of “You play how you practice,” is completely appropriate in the response world. Although in the response world it might be stated as, “You respond how you plan,” the implication remains. Lacking the appropriate “practice” and/or “planning” will contribute to a slow, inhibited or otherwise

unacceptable salvage response, which may likely lead to federalization by the Federal On Scene Coordinator (FOSC). Therefore, contingency planning and pre-established relationships with industry become indispensable to ensure informed decision making, maximum responder cooperation and optimum asset coordination. In order to be effective in developing these contingency plans, RPs and salvors must have a solid understanding of:

- FOSC roles and responsibilities
- Triggers and issues expanding the role of the COTP/FOSC
- Assets available to the COTP/FOSC
- RP and Salvor Integration into ICS/UC

Similarly, the FOSC must have an understanding of the RP’s and salvor’s role and expertise.

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## **FOSC ROLES AND RESPONSIBILITIES**

The role of the Federal On-scene Coordinator (FOSC) during salvage response is multifaceted. Experience has shown that designated U. S. Coast Guard officers in this capacity must provide skilled leadership, facilitation and coordination in order for ICS/UC participating agencies and responders to successfully and efficiently perform their intended function that ultimately protects people, property and the environment. The absence of one or more of these FOSC elemental roles will ultimately weaken the ICS/UC organization and reduce chances for success.

### **Leadership**

Very early in an incident, participating agencies will look for the FOSC to establish a functional organization under the Incident Command System (ICS). This is quite a daunting task considering the organization's potential for large size, structural variability, and complexity, not to mention the expedient nature in which the organization is formed and the complex and dynamic circumstances involved in vessel salvage and spill response. To put this into perspective, imagine forming a multi-million dollar company overnight expecting to produce shareholder value and confidence in the morning!

Leadership must be first exercised by the FOSC in assembling an organization that maximizes timely and informed decision making as well as ensures that participating members placed for optimum performance. In regard to the latter, agencies and responders are much like any company employee. Pre-casualty understandings and respect of member motivations, skills, assets, as well as strengths and weaknesses are very important for the FOSC to place them properly. Joint exercises, contingency planning, and open, productive communications have shown to be excellent in team building. While certainly pre-casualty relationships are valuable in assembling the organization for success and will be strived for, this is seldom 100% achieved in reality, especially when FOSCs rotate every few years. Gaps in understandings must be identified quickly when casualties occur, and steps taken to bridge them before distrust and communication breakdowns start to undermine the organization.

Leadership must also be exercised in uniting this diverse organization such that everyone one is on the same team and striving toward the same successful resolution to casualties. Ultimately, the success of the team and players will be defined not by the success of individuals, but by the ability of the team to perform together. To use a sports analogy, do you think Texas Rangers fans care that their shortstop,

Alex Rodriguez, led the American League in home runs and runs scored in 2001 or that the team finished last in the American League West while shelling out the league's highest payroll? Certainly the taxpaying public would feel the same way if the FOSC were unable to unify salvage players to protect people and the environment as he is tasked by law to do.

A third area that deserves an injection of FOSC leadership is in realistic goal setting. While the safety of personnel and the environment will most likely be any FOSC's primary goals, intermediate objectives and planning must be formed with the assistance of those from within the newly formed organization. Certainly state and local representatives will factor heavily in helping the FOSC, but not to be forgotten is a "reality check" that those who perform the salvage and oil spill cleanup work are able to provide. Experience has shown that those who feel ownership in the process and final product will be much more likely to fully engage with the organization. The Unified Command must capitalize on this principle.

### **Facilitation**

While FOSC's are required by law to prevent or mitigate the threat of oil discharge for vessel casualties, others typically provide the skills, assets, experience, and expertise needed to carry out the salvage and oil spill clean-up operations. Naturally, it is essential to create an environment where all responders and participating agencies are able to express their concerns, be understood and receive support from the organization. Key personnel should be injected at strategic locations within the organization to make sure he is getting the feedback that he/she needs to maintain this type of environment. The structure of the organization may also have to be changed if the flow of communication is impeded in some way such that responding agencies are not being heard by the Unified Command. Striking the balance to achieve an inclusive organization while not delaying expeditious response activities is one of the greatest challenges that must be overcome in salvage response. Important to note is that the Unified Command concept does not necessarily mean decision by consensus in all situations. Worth mentioning here, while on the subject of facilitation, is that the FOSC may and should in some cases seek expert advise from outside the immediate organization. The reality is that the FOSC is most likely not a salvage expert, so other Coast Guard units and industry expertise may be called on to provide assistance. Doing this in a way to achieve an improved response while not alienating involved parties is precisely the art of facilitation.

## **Coordination**

Many commercial, state and federal entities and their assets are available to the FOSC and Unified Command. The FOSC's ability to successfully coordinate these responding entities is another indispensable facet of his/her role in salvage response. We have learned from recent incidents that coordination of salvage and oil recovery operations must be considered and prioritized. Much discussion and even modifications are being considered to the current guidance on ICS/UC structure to allow salvage concerns to be properly voiced and properly coordinated with other operations. For example, the Unified Command should consider what impact refloating or not refloating a stranded and holed vessel will have on the oil clean up effort. Will moving the vessel make spill recovery better or worse? More often than not, and most salvors will agree, focusing efforts on the source of the spill rather than on the spill itself will pay much larger dividends in minimizing additional oil outflow. Similar scenarios with opposing operation priorities exist between fire fighting, salvage, and pollution response operations.

Larger, more complex salvage and oil spill scenarios, especially when partial or full federalization has occurred, will require that federal assets compliment commercial assets and vice-versa. For example, the Navy Supervisor of Salvage could provide a particular pump or towing hawser that is otherwise unavailable or the Coast Guard National Strike Team may provide a mobile command post or personnel needed for spill clean-up monitoring. The key is to find the right combination that will achieve the fastest, most effective response that the public demands. Again, pre-casualty understandings and agreements between salvors, responders and the Coast Guard will inevitably ease tensions over the commingling of resources and enable the most efficient dispatch of assets. Communication, intertwined in many key elements within an ICS/UC organization, becomes absolutely critical to proper asset coordination. All entities including responders, responsible parties, the FOSC and State On Scene Coordinator (SOSC) must identify and communicate needs and concerns before and during casualties so they may be addressed and assets allocated for an optimum response.

## **Federal Responsibilities**

Under the Federal Water Pollution Control Act (FWPCA) as amended by the Oil Pollution Act of 1990(OPA 90), Federal On-scene Coordinators must ensure a safe and adequate response is undertaken that minimizes or mitigates damage to the public health or welfare that is threatened by an incident.

While the responsible party is liable for, among other things, removal costs and damages that may result from an incident, the FOSC has a responsibility monitor progress and take appropriate action if deemed necessary. The FOSC may also issue direction and guidance that he feels essential, and failure or refusal to follow it by the responsible party may result in civil penalties and loss of limited liability, which may be otherwise available under the OPA 90. The extent of federal intervention will vary, depending on responsible party cooperation and capabilities, which will be discussed later in this paper.

While many in the salvage community very familiar with the FOSC's legal responsibility, they must also understand that he/she must manage public expectations for informed decision making, status updates, and that the best response available is being provided. To be very clear, the responsible party and the salvage community must recognize the legitimate responsibility of the FOSC to make informed risk-based decisions, and otherwise avoid actions that unnecessarily place the environment at risk in the interests of financial expediency. To accomplish this, the FOSC should place his/her own personnel at strategic locations and at decision making nodal points. Some in the salvage community may view this negatively as the Coast Guard interfering in areas where they do not have the expertise, but this has proven to be an effective method in keeping all layers of the organization and especially the FOSC informed as to the progress of salvage and spill clean up efforts. Certainly the comfort and familiarity that the FOSC has with responders will have an impact on how much "oversight" is required. This comfort level will have to be established at some point however, preferably before the casualty or sometime in the initial stages.

While no one in the ICS/UC organization including the FOSC wants to see federalization of oil spill clean up and salvage operations, it sometimes becomes a necessity to ensure the best response is provided. This may come as a surprise to some, but many times a lot of expertise about the vessel, the salvage requirements and current situation is lost when a case is federalized. Other times the only expertise will come from federal sources. A delicate balance much be achieved such that the FOSC does not over exercise this authority to federalize spill cases while ensuring the best response is provided. Partial federalization, as will be discussed in the next section, should be considered in many cases.

## **TRIGGERS AND ISSUES EXPANDING THE ROLE OF THE FOSC**

Federalization of a response effort may be defined as the use of federal funds, personnel, and those hired by the FOSC to manage an oil spill or salvage operation. “Salvage operation” is broadly defined and includes assessment and survey, salvage engineering, wreck removal, refloating, rescue towing, shoring, patching, dewatering, cargo lightering, firefighting, stability and stress management, and general risk assessments, as well as the management issues involved with development, review, and approval of operational proposals and recommendations (Buie, 1999). Partial federalization is simply the breaking off of a piece of the salvage or oil spill response operation that is best suited under federal control.

Although the FOSC can choose when and to what extent federalization is needed, it is the initial actions of the RP that will provide the best indicator of how federalization should be used. To this end, the FOSC will constantly assess and evaluate the initial and follow up activities of the RP, the RP’s naval architect and the contracted salvor and the interplay between all until the FOSC is comfortable that the combination of players and their ability to work together will achieve the desired result.

Additionally, there are external regional drivers that might accelerate or delay some of these triggers or issues to expand the role of the FOSC that the RP must be aware of as contingency plans are developed. For example, regional politics, regional environmental sensitivities, and regional economic ramifications all play a major role in the FOSC’s evaluation of a salvage response. While these may not completely match up with the RPs or FOSCs concerns, the fact is that these drivers play a major role in the decision making process (it is imbedded in the ICS/UC structure), and therefore cannot be ignored. These drivers will vary from region-to-region, between ports in a given region, and possibly year-to-year as political focuses change within the same port/state. Since these drivers will have some degree of impact on the evaluation of an RP’s response actions, it is critical that the RP maintain contacts with the response community, including close familiarization with the Area Contingency Plan. This may best be accomplished through active participation in the respective area contingency planning efforts (e.g. Area Committees).

The primary “triggers” that will be fairly consistent between FOSCs and that could lead to the expansion of the role of the FOSC in a salvage response are:

- Inadequate assumption of responsibility

- Unwarranted hesitation or recognition failure
- Capability limitations
- Acting outside established system and processes
- Poor performance history
- Suspected terrorist activities

Before discussing these triggers, it is first important to reiterate a couple of points. First, the FOSC’s responsibilities as outlined earlier demand close oversight of and connection to any and all decisions being made within the Unified Command. As such the RP’s (and associated RP employees) actions, thought processes, forward-looking response posture, and decision-making ability will be closely evaluated and monitored. Second, federalization carries with it implications for the RP that should be noted given the nature of this discussion. When the FOSC federalizes a salvage response (or any response activity) due to the lack of performance of the RP, several factors come into play:

- The limits of liability protection provided under the Oil Pollution Act of 1990 will be relinquished
- The RP would be liable for up to three times the total cost of all expenses incurred by the federal government
- The RP could be subject to civil penalty fines related to failure to adhere to orders or direction provided by the FOSC via an Administrative Order (\$27,500 per day / per violation)
- The RP’s reputation could be discredited posing other future challenges well beyond the immediate substandard salvage response

Understanding the role and responsibility of the FOSC and the implications of federalization due to a lack of RP performance are critical steps in appreciating the triggers that may potentially lead to an expansion of the role of the FOSC. These potential triggers are described below:

### **Inadequate Assumption of Responsibility**

It is standard operating procedure for FOSCs that if the RP chooses not to assume or fails to assume responsibility that the FOSC is going to federalize the salvage or oil spill response case. This is an obvious, very straightforward federalization trigger and one that carries with it the full set of implications outlined above. However, there are other more subtle contributing factors that might be considered indicators of a failure to adequately assume

responsibility, other than direct denial of such an action.

### **Unwarranted Hesitation or Recognition Failure**

Unwarranted hesitation during a response effort or the failure to recognize what actions need to be taken will unquestionably slow the overall response effort. The rapidity in which appropriate response actions are taken by the RP during a salvage case is going to be a tremendous indicator of the RP's preparedness and appreciation of the need to take on the salvage effort. A slow response is best defined as the failure of the RP to take *rapid* actions that might otherwise work to mitigate the impact of the situation (e.g. failing or waiting to engage and deploy response resources at the initial onset of the casualty due to financial or other interests). This may indicate to the FOSC that perhaps the RP is unwilling to assume an active role or more likely may not understand or recognize what steps must be taken for a successful salvage response in a particular geographic region taking into consideration any regional "drivers" (political, environmental or economic). To this end, first impressions play a significant role in influencing the expansion of the role of the FOSC. This impression is critical to establishing a level of confidence and trust with the FOSC, and RP's will likely find that this will greatly influence the amount of federal inquisition and ultimate oversight. At a minimum, the FOSC is likely going to pursue partial federalization to ensure salvage response is moving in the right direction fast enough to mitigate the situation.

If it becomes apparent during a partial federalization that the RP has gained an understanding of the ramifications of their failure to adequately assume responsibility and is taking on a stronger more appropriate role, the FOSC may opt to repeal federalization and allow the RP to fully assume his/her responsibilities. However, due to the dynamic nature of salvage response and the criticality of the interrelated steps and parties involved, the FOSC must be careful that the response does not take steps backwards and may be hesitant to repeal federalization. Therefore, it is in best interest of RP to be in the position of maintaining full responsibility of the salvage response from onset to completion.

### **Capability Limitations**

Capability limitations are best defined as the inability of the RP to execute their intended or stated plans. This could indicate to the FOSC that although the RP appears willing to assume responsibility there may be other extenuating factors limiting the RP's ability to respond. These extenuating factors may

include financial limitations, lack of knowledge of the local area resources, or lack of local resources.

Financial limitations during a response are considered a fundamental organizational breakdown and as a result will be heavily scrutinized by the FOSC. The financial demands for salvage response in a given area of operation must be evaluated and incorporated into the operational needs equation at the onset of any commercial operation. The failure to do so will likely result in an inability to respond as needed and a partial or complete federalization of the response activity that ultimately leaves the RP subject to even greater overall expenses. These limitations, potentially driven by insurance policies, timely availability of liquid assets, or local area requirements may be overcome through planning for the financial needs of an adequate response.

A lack of knowledge of available resources is also considered a fundamental organizational breakdown and will likewise be viewed very critically by the FOSC. A failure to assess asset limitations is a strong indicator that there may be significant problems with the salvage response. Inextricably tied to this is the pre-casualty development of agreements with local contractors and salvors such that employment of the necessary response resources is a turnkey operation. Of course if federal assets are better suited and more available for a given situation, partial federalization may be sought without a critical eye. However, early identification of these shortfalls must be communicated to the FOSC. Again, there is no substitute for early, effective contingency planning to ensure these capabilities are in place when needed.

It is important to note that these capability limitations may also be driven purely by a catastrophic failure that far exceeds what might reasonably be expected, despite the best pre-incident planning efforts. FOSCs should recognize this and federalize to the extent necessary to keep the salvage response moving, while still allowing the RP full opportunity to fulfill their responsibilities.

### **Acting Outside Established System or Processes**

There are a number of issues that will indicate to the FOSC that the RP or RP employees may be unfamiliar with and are acting outside the ICS/UC system and associated salvage processes.

A lack of cooperation between the RP and the other members of the organization could indicate a failure to fully appreciate or understand the potential of the ICS/UC system to provide the infrastructure of a successful response effort. The feeling of being inhibited by the system must be quickly overcome, as the FOSC will demand a free flowing, trusting relationship to already be established or to build very

quickly within the salvage group. It is therefore imperative that the members understand who brings what skill sets to the table so there is a professional awareness and respect for all members present trying to achieve the same goal within the auspices of the ICS/UC system. In this light, it would be valuable for RPs, salvors and naval architects to interact with their local Marine Safety Office to develop these relationships prior to an actual incident. Timeliness is critical as unintended delays of 1 hour, 2 hours, 3 hours, etc. as a result of misunderstandings or mistrust between players can have monumental impacts on the overall mitigation of the casualty. The generation of these relationships will create a natural propensity for cooperation and make all information flow and decision making more efficient. This is achievable through one on one interaction, but it is recommended that to gain maximum benefit from these discussions ports consider developing a "Salvage Steering Committee" to institutionalize relationships, develop protocols and standards of care, and pre-casualty contingency plans. This will entail identifying what resources might be needed, what resources are available, what the capabilities of the resources are, and how best to arrange for the employment of these resources thereby institutionalizing an inherent level of cooperation within the port.

In addition, an important aspect of RP performance is a proactive approach to resolving the situation. What does that mean? It means the RP has "direction" and that the RP is not spending time waiting for direction to take initial actions or develop next step proposals. It means the RP has well established and vetted contingency plans such that the response is efficient given the circumstances involved. It means in all but the most elementary salvage evolutions or where time critical operations make it absolutely impossible, the RP and salvor are initiating preparation of rational supporting evidence and/or engineering calculations to validate the expected outcomes and safety of a given salvage proposal. Lacking this direction poses real management challenges for the FOSC and removing this extra directive step by federalization may be the most expedient means to mitigate the challenge. Obviously the number of potential salvage scenarios and locations make it virtually impossible to outline a response to every possible situation, but having the general structure in place will provide the best opportunity for success. This is a clear indication to the FOSC that the RP understands how the response process is intended to work most effectively. The RP ultimately has two choices, 1) to initiate and maintain a proactive response thereby maximizing their influence on the operation, or 2) to be directed down

a path determined by the FOSC that might not be as palatable or economically acceptable to the RP. Option two, from either perspective, is not the preferred methodology.

### **Poor Performance History**

Another factor that will contribute greatly to the FOSCs evaluation of the adequacy of the RPs response will be the performance history of the parties involved in the salvage response (including not only past performance, but also recent performance on the current response effort). If the FOSC has reason to question the prior or current performance of the RP, the naval architect or salvage master employed by the RP, the RP will be immediately faced with an up hill battle to demonstrate their "team" possesses the skill sets sufficient to achieve the unified command objectives. The FOSC may question performance when necessary information is withheld, unilateral decisions are made without ICS/UC consultation, and/or infighting occurs among responders. Although overcoming these perceptions is not an insurmountable task, it certainly poses some command and control challenges otherwise avoidable through the employment of well established, experienced, and reputable personnel.

FOSC options to mitigate the impact of this situation may include consulting with other independent industry professionals to evaluate proposed actions. This assessment will play right into the option of considering partial federalization of the salvage response to hire an outside independent naval architect and/or salvor to take over for the RP's hires. If the RP is in question, full federalization may occur to take the RP out of the picture while maintaining the continuity of the RP's naval architect and salvor.

### **Suspected Terrorist Activities**

When there are suspected terrorist activities that lead to a casualty and subsequent salvage response, it is likely that the salvage response effort will be federalized to some degree. Purely because of the nature of the incident and need to preserve potential evidence or clues that might identify the perpetrator(s), there will be a great deal of federal involvement and oversight. RP performance will most likely have little bearing on this decision (therefore punitive implications of federalization may not apply). As a result, not a great deal of discussion is provided in this paper, but it should be noted, particularly given the events of September 11, 2001.

## **AVAILABLE FOSC SALVAGE ASSETS**

There are a number of salvage assets available to the ICS/UC response organization that may be employed to various degrees depending on the mix of personnel and resources.

### **Industry Salvage Representatives**

Salvage companies staffed with experienced personnel and adequate equipment are a critical resource in salvage operations. Typically, the salvage master works directly with the RP and insurance underwriters under the terms of a contract established after the casualty event occurs. Ideally, unhindered communication between industry salvage representatives and the Unified Command of the ICS/UC are held at the highest level of importance. Open, direct communications can facilitate prompt FOSC review and approval of salvage proposals, with the consensus of the UC, thus ensuring that the most appropriate salvage actions are swiftly executed for maximum impact. Although the RP often handles direct coordination with industry salvage groups, in the event that the RP does not provide adequate response assets, the FOSC may find it greatly beneficial to establish pre-arranged service agreements with local industry representatives. Salvors that have standing retainers or in-house salvage engineering/naval architecture expertise provide a substantial asset to the response effort. Access to critical ship characteristics data including stability and strength information and the ability to rapidly predict resulting conditions is a crucial element for rapid FOSC review and approval. Time and again, past incidents around the country and the world have shown that rapid response by competent, prepared salvage groups make the critical difference to achieve mitigated emergencies from potentially major disasters.

### **The Oil Spill Liability Trust Fund**

Under the Oil Pollution Act of 1990, the owner or operator of a vessel from which oil is discharged (the RP) is liable for the costs associated with the containment or cleanup of the spill and any damages resulting from the spill. The Coast Guard's first priority is to ensure that responsible parties pay to clean up their own oil releases. However, when the responsible party is unknown, is unable to respond properly or refuses to pay, funds from the Oil Spill Liability Trust Fund can be used to cover removal costs or damages resulting from discharges of oil.

Sources of revenue for the "Fund" include interest accrued, cost recovery from the parties responsible for the spills, and any fines or civil penalties collected. The Fund is administered by the U.S.

Coast Guard's National Pollution Funds Center (NPFC). Access to the Fund may be the most important asset that the FOSC has to protect the environment for the damaging effects of oil spills.

### **Marine Safety Office**

Each Coast Guard Marine Safety Office (MSO) has personnel on staff with varying degrees of experience and familiarity with common issues related to casualty response and salvage operations. The determination of when and how to engage MSO personnel in the salvage response effort depends on both the severity of the given salvage scenario, as well as the capabilities and staffing of each particular MSO. In some cases, an MSO may have experienced people at several seniority levels, so that Coast Guard personnel may fully integrate and facilitate operations with respective industry representatives in technical, on-scene, and command/control functions in the ICS/UC framework, even given the most complex, pressure-driven salvage scenarios. The responses to the BUFFALO 292 and BUFFALO 286 oil spills are good examples of this kind of coordinated effort (Buie, 1999). In other cases, the MSO may be somewhat lacking in experienced personnel to effectively liaison and coordinate with industry representatives at all levels of the ICS/UC, especially in the initial stages of the response. In these cases and when Coast Guard personnel from other units are not available, the FOSC depends even more on the salvage industry. Just as it is important for Coast Guard MSO's to be familiar with industry capabilities and limitations, it is also important for industry to be familiar with MSO capabilities and limitations to ensure that gaps are filled with the most qualified individual(s) within the ICS/UC structure. In no case should individuals unversed in salvage operations be placed in a hierarchical layer in the ICS/UC between the salvage master and the FOSC/UC. The level of trust and understanding established between the local MSO is fostered by open communications, respect and acknowledgement of each other's responsibilities, as well as networking/outreach efforts and working experience prior to the casualty.

### **Marine Safety Center (MSC) Salvage Engineering Response Team (SERT)**

The Coast Guard's SERT provides technical assistance in vessel casualties as requested by the COTP/ FOSC. SERT members can respond either remotely or on-scene for all vessel salvage scenarios. Strengths of the SERT is its access to the Marine Safety Center's roughly 5,000 hull files that can be used to generate computer models of vessels for use

in salvage engineering assessment and analysis. Their relationships with organizations like the Navy Supervisor of Salvage (NAVSUPSALV), the Coast Guard Intelligence Coordination Center, and the Office of Naval Intelligence (ONI), as well as all major class societies, enable the SERT to quickly locate and transfer information about a damaged vessel that may otherwise be difficult to obtain. SERT members may also provide a valuable interface with industry salvage personnel, and act as a facilitator for communicating issues between the FOSC, the salvage master, and hired naval architects/salvage engineers. Their assistance, provided either remotely or on-scene, can greatly speed the process of developing salvage plans and review/approval by the FOSC/UC. A second eye to review/validate salvage engineering calculations also gives an added measure of confidence to FOSC.

#### **U. S. Navy Supervisor of Salvage (NAVSUPSALV)**

Another significant pool of expertise is available from NAVSUPSALV. Its mission is to provide worldwide technical, operational, and emergency support to the Navy, DOD, and other Federal agencies, in the disciplines of marine salvage, pollution abatement, and diving services, among others. NAVSUPSALV offers technical salvage engineering capability, as well as operational expertise and strategic equipment caches for use with salvage response efforts in national maritime emergencies. This organization is particularly useful to the FOSC when the RP does not provide salvage response assets, the case is potentially major, and/or must be federalized. The FOSC should at a minimum consult with NAVSUPSALV for any potentially major vessel casualty, especially when there exists a strong possibility of federalization.

#### **Coast Guard National Strike Teams**

The USCG National Strike Force (NSF) is a special team designated under the National Contingency Plan (40 CFR 300.145) to provide highly trained, experienced personnel and specialized equipment to Coast Guard FOSC's and other federal agencies to facilitate preparedness and response to oil and hazardous substance pollution incidents in order to protect public health and the environment. In order to assist FOSCs in their efforts to respond to various incidents using the ICS/UC, and to pre-plan for these responses, the National Strike Force has developed a spill management support service. This service provides FOSCs the opportunity to make use of NSF personnel, who are highly trained and experienced in ICS/UC, to fill various positions within an incident-specific ICS/UC organization. In

addition, the Atlantic, Gulf, and Pacific Strike teams each offer a variety of services to the FOSC in terms of people and equipment. While most of these resources are geared toward spill management and cleanup, mobile command and control facilities are available, along with on-scene personnel that may monitor operations and provide the FOSC with valuable information pertinent to salvage operations.

#### **RP AND SALVOR INTEGRATION INTO ICS/UC**

This topic is one of the most problematic and controversial issues to address, for several reasons. For one, the language of OPA '90 does not adequately address the role of salvage in area contingency planning and actual response efforts. This leaves basic definitions of the salvage master's authority, roles, and responsibilities somewhat open to debate. Some new state legislative initiatives are underway, and federal regulations requiring salvage and firefighting capabilities are under development to address this gap (Laferriere, Lincoln, Danielczyk, 2001). Typical National Preparedness Exercise Program (NPREP) exercises mandated by OPA '90 place a tremendous effort and focus on spill management and cleanup operations, while seemingly leaving salvage operations on the sidelines. Documents such as the Coast Guard Oil Spill Field Operations Guide (FOG) appear to relegate the salvage group within several layers of the ICS/UC command structure, placing it within an emergency response branch of the Operations section. This hierarchy may be appropriate where salvage actions are not critical to mitigate the emergency. However, it is potentially disastrous in cases where salvage is of paramount importance, demanding immediate and decisive action. In a worst-case situation, the FOSC does not have experience or appreciation of the importance of salvage in a given scenario, the FOG is used as doctrine rather than as a guideline, and/or personnel unfamiliar with salvage issues are placed in supervisory or liaison positions within the ICS/UC, above or alongside the salvage master (Deal, Fairbanks, Reiter, Umbdenstock, 2001). These potential mistakes can reduce the support functions of the ICS/UC for the salvage operation, and even its basic legitimacy in the eyes of the salvage master, while significantly increasing the risk of communication problems and mismanagement of the response effort. Finally, common forms of contractual agreement between salvors and insurance underwriters such as Lloyd's Open Form (LOF), fixed price, and time and materials arrangements, do

not always lend themselves amenable to the ICS/UC structure. Although the salvor's option to invoke the Special Compensation P&I Club (SCOPIC) clause can lessen these difficulties, from the standpoint of the salvage master's responsibilities the conflict of interest between the contract agreement and the ICS/UC remains to a large degree.

Clearly, the basic challenge is to overcome the difficulties mentioned above and find a way to form cooperative, effective working relationships in the ICS/UC framework. This requires all parties to acknowledge the legitimacy and responsibilities of the other and act in the most appropriate way to expedite successful salvage actions.

For the RP and salvage master's part, the ICS/UC should be viewed less as a hindrance and more as the most legitimate mechanism available to integrate the multifaceted public and commercial interests that inevitably present themselves in a casualty situation. To this end, the RP and salvor must be familiar with the workings of the ICS/UC, and devise strategies on how they can best interface with the organization in terms of command and control of technical and on-scene operations, as well as communicating difficulties, support requests, and response proposals to the FOSC/UC.

In each casualty, the FOSC will make every effort to tailor the structure of the ICS/UC organization commensurate with the importance of salvage operations and available salvage expertise/assets. These efforts should maximize the ability of the RP and salvor to utilize their capabilities and communicate with the ICS/UC, so that response efforts may be best coordinated. Management of the ICS/UC is meant to be inherently flexible, in order to effectively handle the broad spectrum of possible emergency scenarios. In some cases, an ICS/UC organization may be most effective when it maintains separate Operations sections which separately handle salvage and pollution response efforts (Deal, Fairbanks, Reiter, Umbdenstock, 2001). In other cases, a representative of the salvage master or a SERT member liaison may act as a technical consultant, with the ability to directly communicate issues with the FOSC. In still other cases, the most appropriate organization may be that as described in the FOG, with the salvage group reporting through several layers of the Operations section. The FOSC should look for ways in which the ICS/UC may supplement and support the salvor's efforts in terms of providing information about the vessel, environmental conditions, etc., or also in terms of people and equipment, such as coordinating the efforts of local firefighting authorities. It is recommended that RPs and salvors have some dialogue with their respective COTPs/FOSCs to

obtain an understanding of the localized expectations in order to roll them into their planning process.

Above all, the FOSC, RP/salvor, and state/local representatives must work together to achieve the best possible response. In particular, the FOSC must provide personal leadership with an understanding and respect for all participants' interests and capabilities. This key element transforms the ICS/UC from a group making sluggish decisions by committee, into a dynamic, responsive organization that integrates multiple interests, maximizes available expertise/assets, and thereby makes informed, risk-based decisions in a decisive manner.

## **CONCLUSIONS AND RECOMMENDATIONS**

1. The FOSC, among others, must exercise effective leadership, facilitation and coordination skills to effectively manage major oil spill/vessel salvage response casualties.
2. The salvage community and industry must appreciate the FOSC's legal responsibility to protect public health / welfare, and minimize environmental damage and property loss.
3. The FOSC must inject key personnel in strategic locations and at decision nodal points so that timely, informed risk-based decisions are made.
4. Contingency planning and pre-casualty relationships between federal, state and commercial entities are important to ensure effective responses.
5. Ports should consider developing a "Salvage Steering Committee" to institutionalize relationships, develop protocols and standards of care, and pre-casualty contingency plans.
6. Triggers that may lead to federalization include inadequate assumption of responsibility, unwarranted hesitation or recognition failure, capability limitations, acting outside established system and processes, and poor performance history.
7. New regulations should require salvage contingency planning at the area level, and performance-based salvage requirements for RPs/owners/operators.
8. The RP needs to be in tune with the local political, environmental and economic pressures and have them incorporated into their contingency plans.

9. The FOSC has access to a multitude of assets that may prove beneficial in salvage and oil spill response efforts.
10. The Coast Guard and industry must work to achieve a better understanding of one another's strengths, weaknesses, assets, motivations and responsibilities.
11. If the ICS/UC organization is successful in preserving the safety of personnel, as well as protection of the marine environment, and property, everybody wins.

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