An Analysis of the Effectiveness of the Use of the Incident Command System in the Deepwater Horizon (DWH) Incident

Summary of how the Incident Command System functioned during DWH, with recommendations for improvement

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Executive Summary

Following the explosion of the Deepwater Horizon (DWH) offshore drilling rig on April 20, 2010, federal, state, and local governments and the responsible party (RP) faced an unprecedented challenge in the Gulf of Mexico. Never before had a subsea drill unit malfunction of that magnitude occurred in U.S. waters. This incident called on the existing governing frameworks for offshore activities and disaster response, both of which cut across every level of governance, from national to local, and involved multiple actors at each of those levels.

Section 496 of Chapter 2011-142 of the Laws of Florida created the Commission on Oil Spill Response Coordination. The commission was charged with preparing a final report that identifies potential changes to state and federal laws and regulations, which will improve response capabilities and processes, and protect Florida’s people and resources. This report is one of several reports that will help form the basis for the final report. The analysis conducted for this report tries to answer the question of whether existing federal and state utilization of the Incident Command System (ICS) for oil spill planning and response are adequate to deal with a large-scale spill matching the volume and/or duration of the DWH incident which may or may not be designated as a spill of national significance (SONS).

Future governmental activity could be influenced by several factors, including conditions in the Gulf region, independent inquiries, judicial actions and the availability of data for further study. As multiple state and federal agencies seek to better improve emergency preparedness and response capabilities, it will be important to understand the current framework for addressing such incidences.

This report recommends considering the following items for improved response capabilities in future incidents:

- Set clearer guidelines on span of control and flexible nature of ICS for earlier involvement of local ICS structures

- Implement training for government officials on ICS and emergency response protocol, specifically for oil spills, to help distinguish between the National Response Framework (NRF) and the National Oil and Hazardous Substance Contingency Plan (National Contingency Plan, NCP)

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1 Rick Jervis, "Gulf Blast Appears to be ‘Blowout’" USA Today, April 22, 2010; Ben Casselman, Russell Gold, and Angel Gonzalez, "Blast Jolts Oil World," Wall Street Journal, April 22, 2010.

2 40 CFR 300.5 defines a spill of national significance as "...a spill that due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and clean up the discharge."
• Enhance doctrines within adopted ICS handbooks to facilitate communication with ICS structures at all levels of government

• Develop further guidance on Spill of National Significance/National Incident Command (SONS/NIC) that integrates the ICS doctrine, specifically Joint Information Center (JIC) and Public Information Offices (PIOs)

1 Introduction

The ICS is a standardized, on-scene, and all-hazards incident management approach used by all levels of government, many nongovernmental organizations (NGOs) and the private sector to establish a common process for planning and managing resources in emergency response efforts. The ICS was intended to be scalable, adaptable, and dynamic to ensure ease of implementation and execution to incidents of varying size and scope. The ICS structure outlines responsibilities and functions, thereby reducing potential conflicts, and improving information flow among all participating organizations. The ICS is not only applied in the U.S., it is commonly recommended by the United Nations when member states must address national disasters and emergencies. A number of agencies in Canada and the United Kingdom also use the ICS in their planning and response efforts.

The ICS was initially established in the early 1970s as a means for managing the efforts to control rapidly moving wildfires in California. Before implementing the ICS, emergency responders identified a number of problems as encumbrances to having well-organized, effective incident management. The critical issues consisted of the following:

- Overwhelming numbers of individuals reporting to one person
- Different emergency response organizational structures among responding agencies
- Lack of reliable incident information
- Inadequate and incompatible communications
- Lack of structure for coordinated planning among agencies
- Unclear lines of authority

5 See ICS Canada at: http://www.icscanada.ca/
• Terminology differences among agencies
• Unclear or unspecified incident objectives

Despite the use of the ICS, these issues surfaced again during and following the Exxon Valdez oil spill in 1989 in Prince William Sound, Alaska, and decision makers began adapting the ICS into a more flexible protocol capable of working with varied organizational structures and in any situation regardless of jurisdictional boundaries. The U.S. Department of Homeland Security (DHS) in 2004 officially adopted this system for oil spill response.

Today, incidents demand so many resources and skills that one local, state, or federal agency could not possibly provide them all; therefore, the ICS attempts to provide a way for many agencies to work together smoothly under one management system.

2 Description and Application of the Incident Command System

As explained above, the ICS provides a structure for multiple actors to work efficiently and effectively to respond to an incident. The ICS is a subcomponent of the National Incident Management System (NIMS), which provides a framework for how incidents are managed across all homeland security activities, including prevention, protection, response, mitigation and recovery. This framework establishes a core set of concepts, principles, procedures, organizational processes, terminology and standard requirements for use within the ICS. The United States Coast Guard (USCG), an agency in DHS, has developed its own framework for implementing the NIMS, which uses the structure of the ICS in the USCG’s Incident Management Handbook (IMH).

The state of Florida has also adopted ICS and incorporated key components into the Florida Comprehensive Emergency Management Plan (CEMP). The CEMP defines the responsibilities of the government, private sector, and volunteer and NGOs that make up the State Emergency Response Team (SERT). The CEMP is intended to ensure that all levels of government are able to mobilize as a unified emergency organization to safeguard the state’s residents and visitors. As a part of the CEMP, SERT and various state agencies have also developed incident-specific applications of ICS for the different types of emergencies.

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3 Purpose of the Incident Command System

The ICS is intended to be a widely applicable management system that promotes effective and efficient management. The ICS achieves these objectives by setting out a protocol that integrates issues such as facilities, equipment, personnel, procedures and communications as they relate to the various agencies involved in an incident. The system further describes an optimal organizational structure for individuals and agencies. As defined in the December 2008 edition of the NIMS, “…the ICS is a fundamental form of management established in a standard format, with the purpose of enabling incident managers to identify the key concerns associated with the incident—often under urgent conditions—without sacrificing attention to any component of the command system.”

The ICS was developed to provide the following benefits:

- Establish an integrated organizational structure
- Adapt to differing incidents and their innate complexities
- Create a framework free of jurisdictional boundaries
- Incorporate federal, state, local, and RP representatives in the response planning and activities
- Organize groups around a common organization, planning, logistic, and administrative structure
- Create one protocol capable of being used across disciplines
- Establish a common terminology
- Build an organizational structure developed modularly
- Allow for centralized and coordinated incident planning

3.1 Organizational Structure and Function of the Incident Command System

As part of ICS, a comprehensive organizational structure has been established for either single jurisdiction or multijurisdictional use (see Figure 1). For smaller incidents, a Single Incident Commander is designated; for larger, multijurisdictional incidents, a Unified Command (UC) is established. For incidents that affect many regions, an Area Command is implemented.

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consisting of an individual Area Commander that assists with logistical and administrative issues. Also, Incident Commanders (ICs) can be assigned from individual agencies or jurisdictions. This group is designated as Incident Command, and acts as a single integrated management organization.

Working in concert with the Incident Command is the Command Staff, which consists of the Public Information Officer, Safety Officer and Liaison Officer. Those responsible for the functional aspects of the incident command structure are the General Staff. Within the ICS structure, it is prescribed that reporting to Incident Command should be conducted by a Section Chief for each of the functional elements of ICS: Operations, Planning, Logistics and Finance/Administration (see Figure 1 above). Each Section is further organized according to the generalized incident command organization chart shown in Figure 2. The Operations Section has as its principal goal lifesaving and responder safety, along with responsibility for establishing situational control and restoring normal operations. Once this is established, the Operations Section shifts its focus to developing tactics for incident-related activities. Within the Operations Sections is a built-in structure for addressing span of control. Span of control relates to the number of individuals reporting to a single person and is used as a determining factor in the development of the reporting hierarchy. The Operations Section can be divided into Branches, Divisions or Groups, and Resources as each element grows in size and complexity. The necessity of subdividing the Operations Section into Branches comes when the span of control within the Section Leadership has exceeded the recommended limit (1:5 to 1:10).12 Divisions and Groups are determined according to the need to subdivide on the basis of geographic or functional needs, respectively.13 The needs are determined by leaders in the Operations Section chain of command. A typical Operations Section of the ICS is shown in Figure 2.

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13 Ibid. Appendix B, Page 100.
The Planning Section is composed of four units and has the role of collecting, evaluating and disseminating information to incident response personnel, namely the IC or UC, and any other incident management personnel. The four units (shown in Figure 2 below) are Resources, Situation, Demobilization and Documentation; Technical Specialists are included in the Planning Section but act as a *talent pool* and can be engaged to assist any area in ICS as needed.¹⁴

The Finance/Administration Section is used for incident-related support, with four Units taking responsibility for Compensation/Claims, Cost, Procurement and Time as shown in Figure 2. The Finance/Administration Section Chief is responsible for all financial, administrative, and cost analysis aspects of the incident and for supervising members of the Section.¹⁵

The Logistics Section provides service and support needed to facilitate incident management. Six units make this possible: Supply, Ground Support, Facilities, Food, Communications, and Medical.¹⁶

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¹⁴ Ibid. Appendix B, Page 105.
Area Command oversees the management of multiple incidents handled individually by separate ICS organizations or oversees the management of a very large or evolving incident engaging multiple Incident Management Teams (IMTs). The use of an Area Command relieves the individual ICs of certain duties to allow for a more focused effort in tactical operations and coordination. Area Command supports and provides strategic direction to ICs and UCs. In the case of a multijurisdictional incident, a Federal On-Scene Coordinator (FOSC) can elect to establish a Unified Area Command (UAC) to coordinate the efforts of all agencies and jurisdictions in the response.\(^\text{17}\)

### 3.1.1 Incident Command Post

The Incident Command Post (ICP) signifies the location of the tactical-level, on-scene incident command organization. It typically comprises the Incident Command and the Command and General Staffs, but can include other designated incident personnel from federal, state, tribal and local departments and agencies, and NGOs and representatives of private sector entities. Typically, the ICP is located at or in the immediate vicinity of the incident site, and it is the location for conducting direct, on-scene control of tactical operations. Incident planning is conducted at the ICP; an incident communications center also would normally be established at this location.\(^\text{18}\)

### 3.1.2 Incident Action Plan

Centralized, coordinated incident action planning should guide all response activities. An Incident Action Plan (IAP) provides a concise, coherent means of capturing and communicating the overall incident priorities, objectives, strategies and tactics in the context of both operational and support activities. Every incident must have an action plan. However, not all incidents require written plans. The need for written plans and attachments is based on the requirements of the incident and the decision of the IC or UC. Most initial response operations are not captured with a formal IAP. However, if an incident is likely to extend beyond one operational period (generally 12 to 24 hours), become more complex, or involve multiple jurisdictions and/or agencies, preparing a written IAP will become increasingly important to maintain effective, efficient, and safe operations.\(^\text{19}\)

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3.1.3 Support Facilities

On large or multi-level incidents, higher-level support facilities can be activated. These facilities include the Joint Information System (JIS), the JIC, and a Multiagency Coordination System (MACS). The JIS and JIC are designed to foster the use of common information formats. The JIS integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, accurate, accessible and timely information during crises or incident operations.

The JIC provides a structure for developing and delivering incident-related coordinated messages. It develops, recommends, and executes public information plans and strategies; advises the IC, UC, and supporting agencies or organizations concerning public affairs issues that could affect a response effort; and, controls rumors and inaccurate information that could undermine public confidence in the emergency response effort. It is the central point of contact for all news media at the scene of an incident. Public information officials from all participating agencies/organizations should co-locate at the JIC.20

MACS assists cooperating agencies to better define how they will generally work together and how they can do so most efficiently.21 These systems can be implemented regardless of the location, personnel titles or organizational structure of those participating. Initially the IC/UC and the Liaison Officer might be able to provide all needed multiagency coordination at the scene. However, as the incident grows in size and complexity, off-site support and coordination might be required.

For the collection and dissemination of critical information related to the response effort is the establishment of a Common Operating Picture (COP). The COP is the means for gathering data received from on-scene responders, compiling and synthesizing that data into a clear interface, and developing the protocol for disseminating that information. The COP is intended is be an up-to-date situational snapshot of the response effort for use by all responders and other appropriate parties.22

3.1.4 Area Contingency Plans

The NCP has set forth that the National Response System—which is activated in major incidents—will function as an ICS. As a part of the planning process for major oil spill incidents, the NCP also states that Area Contingency Plans (ACPs) are to be developed by the Area Committees with representatives from local, state and federal agencies to establish the model for

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20 Ibid., page 29.
21 FEMA website, Multiagency Coordination Systems Overview. Available at: http://www.mmr5.fema.gov/emergency/nims/MultiagencyCoordinationSystems.shtm
response management based on NIMS/ICS. This planning exercise is intended to educate all potential members of the response community on NIMS/ICS doctrine, and develop relationships at all levels for a unified effort when an incident occurs.

For more information regarding the NCP, see Commission Report #4, which describes both the NCP and the NRF in greater detail.

3.2 Application of Incident Command System

ICS is a structural skeleton that any agency, government or entity that might be tasked with responding to an incident can implement. The structure sets forth key roles and responsibilities and is scalable for any size incident. Adopting agencies will develop a supplemental incident response framework that mirrors the generic framework set forth in the NIMS/ICS doctrine. It is through this adapted framework that the agency will assign sub-agencies, departments, or individuals to be responsible for different aspects of the ICS response structure. The function of the ICS during the DWH incident is explored in Section 3.

3.2.1 USCG Incident Management Handbook

The USCG IMH\textsuperscript{23} contains the adapted guidelines for implementing ICS for all anticipated incidents that might occur in USCG jurisdiction. Because industries involved with the drilling and transport of oil operate in USCG-regulated waters, the USCG has specified guidelines for response to any oil spill that might necessitate their involvement or oversight. Included in these provisions are specific applications for the Initial Response Organization, followed by the method in which the response is scaled up for an increasingly larger effort. These structures are set forth as the Reinforced Response Organization, Multi-Division/Group Organization, and Multi-Branch Organization. Figure 3 shows the USCG Multi-Branch Organization that was the sample framework for the DWH response.

Figure 3. USCG Multi-branch organization.
Florida’s CEMP has been developed for use by the SERT and uses NIMS/ICS established doctrine and structure (see Figure 4). The State Emergency Operations Center (SEOC) implements the CEMP before and during an emergency situation. The CEMP is broken down as follows:

- **Basic Plan**: Describes the process for preparedness, response, recovery and mitigation activities of federal, state and local agencies, private volunteer organizations and NGOs that form the SERT.

- **Emergency Support Function Annex**: This series of appendices describes the 18 Emergency Support Functions (ESFs), which serve as the primary mechanisms for providing assistance at the state level.

- **Incident-Specific Annexes**: These annexes address the unique aspects of how the state responds to incident-specific emergencies and disasters (e.g., Biological, Nuclear/Radiological, Terrorism, Mass Evacuation and Migration).

![Figure 4. Florida SERT organizational and incident command structure.](image-url)
The CEMP maintains the upper management structure as laid out in the ICS. This basic plan is supported by a number of specialized state plans such as the Florida Recovery Plan and the Florida Enhanced Hazard Mitigation Plan. Such plans are incorporated into the CEMP by reference.\textsuperscript{24}

To facilitate effective operations, the CEMP adopts a functional approach that groups the types of assistance to be provided by the 18 ESFs. Each ESF is headed by a primary state agency, which has been assigned in the CEMP on the basis of its authorities, resources and capabilities in that functional area (see Figure 5). The primary agency appoints an Emergency Coordination Officer (ECO) to manage that function in the SEOC. The ECOs and staff of Florida’s Division of Emergency Management (FDEM) form the SERT. The SERT serves as the primary operational mechanism through which state assistance to local governments is managed. State assistance will be provided to impacted counties under the authority of the State Coordinating Officer (SCO), on behalf of the Governor, as head of the SERT. If the President of the United States issues an emergency or major disaster declaration for the state, the SCO will coordinate in-state federal assistance through the Federal Coordinating Officer (FCO) and corresponding federal ESF(s). The federal ESF organization will work with the state ESF organization to ensure that resources and services are timely provided.\textsuperscript{25}

The SEOC, or its alternate, will be activated at a level necessary to effectively monitor or respond to threats or actual emergency situations. The SEOC operates 24 hours a day, 7 days a week, and is in Tallahassee, Florida. The level of staffing at the SEOC varies with the Emergency Readiness and Response Level. The three levels of activation are as follows:

- **Level 3 (monitoring):** Normal conditions.
- **Level 2 (partial activation):** The SERT is activated, but might not require full activation of every ESF.
- **Level 1 (full activation):** The SERT is fully activated to conduct response and recovery operations.


As stated above, the Florida SERT is grouped into 18 ESFs that carry out coordination and completion of response and recovery activities in the SEOC during an emergency or disaster. These ESFs are grouped by function rather than agency, with each ESF headed by a primary state agency and supported by additional state agencies. The table below lists the state agencies responsible for each ESF in Florida.
Table 1. Florida emergency support functions and responsible agency

<table>
<thead>
<tr>
<th>ESF #</th>
<th>Emergency Support Function</th>
<th>Primary State Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Transportation</td>
<td>Department of Transportation</td>
</tr>
<tr>
<td>2</td>
<td>Communications</td>
<td>Department of Management Services, Division of Telecommunications</td>
</tr>
<tr>
<td>3</td>
<td>Public Works &amp; Engineering</td>
<td>Department of Transportation</td>
</tr>
<tr>
<td>4</td>
<td>Firefighting</td>
<td>Department of Financial Services, Division of State Fire Marshal</td>
</tr>
<tr>
<td>5</td>
<td>Plans</td>
<td>Division of Emergency Management</td>
</tr>
<tr>
<td>6</td>
<td>Mass Care</td>
<td>Department of Business and Professional Regulations and Department of Children and Families</td>
</tr>
<tr>
<td>7</td>
<td>Resource Management</td>
<td>Department of Management Services, Division of Purchasing</td>
</tr>
<tr>
<td>8</td>
<td>Health &amp; Medical</td>
<td>Department of Health</td>
</tr>
<tr>
<td>9</td>
<td>Search &amp; Rescue</td>
<td>Department of Financial Services, Division of State Fire Marshal</td>
</tr>
<tr>
<td>10</td>
<td>Environmental Protection</td>
<td>Department of Environmental Protection</td>
</tr>
<tr>
<td>11</td>
<td>Food &amp; Water</td>
<td>Department of Agriculture and Consumer Services</td>
</tr>
<tr>
<td>12</td>
<td>Energy</td>
<td>Public Service Commission and Division of Emergency Management</td>
</tr>
<tr>
<td>13</td>
<td>Military Support</td>
<td>Department of Military Affairs, Florida National Guard</td>
</tr>
<tr>
<td>14</td>
<td>External Affairs – Public Information</td>
<td>Executive Office of the Governor, Office of Communications</td>
</tr>
<tr>
<td>15</td>
<td>Volunteers &amp; Donations</td>
<td>Governor’s Commission on Volunteerism and Community Service (Volunteer Florida)</td>
</tr>
<tr>
<td>16</td>
<td>Law Enforcement &amp; Security</td>
<td>Department of Law Enforcement</td>
</tr>
<tr>
<td>17</td>
<td>Animal and Agricultural Issues</td>
<td>Department of Agriculture and Consumer Services</td>
</tr>
<tr>
<td>18</td>
<td>Business, Industry, &amp; Economic Stability</td>
<td>Department of Economic Opportunity</td>
</tr>
</tbody>
</table>
4 Use of Incident Command System during DWH incident

The initial reports from the DWH incident response led to activation of some components of various federal, state and local emergency management teams. As previously stated, ICS is the universally adopted structure governing almost all emergency response efforts. The scope of DWH presented an unprecedented response effort because of the magnitude of the potentially affected Gulf waters and states’ shorelines. Although the oil was contained in the Gulf Coast and the United States Exclusive Economic Zone (EEZ), there was an apparent risk that oil could enter the Loop Current at any time and be transported to Cuban or Bahamian waters, thus escalating the response to an international level. This section of the report focuses mainly on the response effort of each level of government in Florida: federal, state and local (or county).

4.1 Initial Implementation

On April 20, 2010, off the coast of Louisiana, the MC252 well26 experienced a catastrophic blowout that damaged and eventually sank the drilling rig Deepwater Horizon. Of the 126 workers on the drilling rig at that time, 11 were killed in the initial explosion. After the blowout, oil began flowing unchecked from the wellhead into the Gulf of Mexico. At 10 p.m. central standard time (CST), the USCG District Eight Command Center in Mobile, Alabama received a report of the explosion and fire aboard the Deepwater Horizon drilling rig. The USCG immediately began the search and rescue operation, acting as the Search and Rescue Mission Coordinator.

The MC252 well was one of many offshore deep-water wells being drilled for British Petroleum (BP) at the time. BP, as the owner of the well, became the designated RP per the Oil Pollution Act of 1990, and as such became responsible for assisting in the response effort specifically by supplying industry experts and all funds to conduct response activities.

As the search and rescue operation was being conducted following the initial explosion, the USCG Commanding Officer of Marine Safety Unit Morgan City, Louisiana, became the FOSC in charge of directing the oil spill response activity. After it was determined that the DWH oil spill would be of paramount concern, the role of FOSC was transferred to the Commander of the Eighth USCG District. On April 23, 2010, three days after the incident, the FOSC established a UAC in accordance with NIMS. Headquarters for the UAC were set up in Robert, Louisiana, at the Shell Robert Training and Conference Center. Five ICPs were also set up: ICP Galveston, ICP Houston, ICP Houma, ICP Mobile, and ICP Miami.

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26 Macondo Prospect, also known as the Mississippi Canyon Block 252, is abbreviated MC252.
4.2 Organizational Structure of Incident Command System during DWH

The initial reports from the site of the incident stated that the amount of oil that the response effort would need to clean up alerted the responders to the fact that a large response organization would be necessary. All ICS structures are scalable, and as such can be implemented to respond to any size disaster with an adequately sized response force. Below are the elements that comprised the ICS leadership for each level of government, which responded to the effects of DWH on northwest Florida.

4.2.1 National Incident Command

On April 28, 2010, eight days after the initial explosion on the Deepwater Horizon rig, the National Response Team (NRT) had come to the realization that the ensuing spill would be of national significance and that action or attention would be needed at the federal level. This prompted the declaration of a SONS. Accordingly, per the NCP regarding SONS, a National IC was appointed by the U.S. Secretary of Homeland Security. The role was filled by the Commandant of the USCG Admiral Thad Allen. Subsequent to being named National IC, Admiral Allen established an NIC in Washington, D.C. The responsibility of the NIC had not been formally established through USCG or NCP doctrine, but draft instruction had been circulated and a skeletal support organization had been provided in the IMH. The simplified guidelines included leading national level communications and developing strategic objectives, coordinating interagency issues, coordinating federal, state, local, and international resources, and overseeing UAC activities for effective response.

The NIC eventually settled into an organization in response to perceived needs. A vital part of the NIC management became the Interagency Solutions Group (IASG) composed of members of the agencies in the NRT. The IASG was an ad hoc structure that functioned under the doctrine of the NRT, but at a departmental level, which was above the normal operating level that NRT was accustomed. The role of the IASG was to provide the following:

- Coordinate and resolve interagency issues (at the appropriate level)
- Broker interagency resources and expertise
- Establish lines of communication to interagency officials, for reach back support
- Provide input to National IC from other agencies
- Act as a think tank

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As the DWH response effort continued, NIC worked with the NRT, Regional Response Teams (RRTs), and ICS and the overall top hierarchy of the federal government was developed as shown in Figure 6 below.

![Figure 6. Overall SONS organization chart.](image)

### 4.2.2 Federal ICS Components

The USCG has been given jurisdiction over all incidents that occur in federal waters and specific charge to address oil spills per the NCP. As the agency tasked with overseeing the response effort, the USCG was responsible for designating On-Scene Coordinators, ICs, and establishing and staffing the federal ICS as specified in the USCG’s IMH. In Chapter 19 of the IMH, it states, “It is impossible to address the possible ICS organizations that may result from [oil spill incidents]. It is important to note that the majority of oil spills are small events that will not and should not result in a response beyond that of an initial or reinforced response organization.”

#### 4.2.2.1 Unified Area Command

Because of the location and complexity of spill response, responders determined that a UAC should be used to lead the response effort. UAC was established in Robert, Louisiana, on April 23, 2010, with the FOSC assigned as the Unified Area Commander. The roles of UAC were to focus on directing, supporting and assisting the ICPs and coordinating with the RP and each
affected state and to standardize practices across the response and broker resources—particularly boom, skimmers and personnel. The UAC also was responsible for setting up a daily battle rhythm for responders and stakeholders. This battle rhythm included a daily schedule of meetings, conference calls, briefings, status reports, planning sessions and shift changes.

4.2.2.2 Incident Command Posts

ICPs were also established shortly thereafter for the direction of the operation effort. The ICPs were located in Galveston, Texas; Houston, Texas; Houma, Louisiana; Mobile, Alabama; and Miami, Florida. Each ICP was headed by an ICP Commander, and each was given authority as a FOSC Representative. This was consistent with the NCP and the USCG delegation of authority.29

4.2.2.2.1 ICP Houston

ICP Houston was established on April 24, 2010, four days after the initial incident. ICP Houston was operated solely as a technical group, and oversight was performed via teleconference with ICP Houma. Although ICP Houston fell under ICP Houma, a separate IAP was developed and separate roles were established for each ICP. The role of ICP Houston was to focus on well intervention and source control. Participants in ICP Houston included the USCG, the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE), the Science Team, an NIC representative, with limited interaction from U.S. Navy Supervisor of Salvage and Diving (SUPSALV) and National Oceanic and Atmospheric Administration (NOAA). 30 On September 19, 2010, the National IC confirmed that the well kill operation had been successfully completed, and on September 23, 2010, ICP Houston was closed. 31

4.2.2.2.2 ICP Galveston

ICP Galveston was set up on July 9, 2010 (Day 81) to handle nearshore and shoreline response operations for Texas. Because of the limited amount of impact on the Texas shoreline, the response effort was minimal. As with ICP Houston, ICP Galveston was consolidated into GC-IMT on September 1, 2010. 32

4.2.2.2.3 ICP Houma

The ICP Houma command staff included the FOSC Representative (FOSCR) and five Deputies. The assignment of Deputies became useful in dividing the substantial tasking originating from the spill, stakeholders, the media and the chain of command. The USCG assumed

30 Ibid., page 15.
31 Ibid., page 217
32 Ibid.
responsibilities for external activities such as distinguished visitors, media interviews, consultations with parish presidents and visiting the field to ensure operations occurred in accordance with the IAP.  

Senior ranking USCG Deputies assumed responsibilities for certifying internal operations. One Deputy oversaw the IMT processes for the FOSCR and was designated as a FOSCR by the FOSC. The Deputy was responsible for attending all ICP regularly occurring meetings including the planning process meetings, making decisions based on the UAC objectives, and helping ensure that the ICP activities would not be negatively affected by the physical absence of the FOSCR. In addition, a USCG Deputy for External Affairs—and initially a USCG Deputy for USCG Resources—were designated. This latter position was only temporary until the USCG forces began to flow predictably into the field. Later in the response, the USCG appointed a USCG Deputy for Operations to assume the operational quality control check duties of the FOSCR. The RP provided representatives to ICP Houma who were actively involved in day-to-day ICP operations and planning.

4.2.2.4 ICP Mobile

ICP Mobile was established on April 26, 2010, to alleviate the growing response organization in UAC. Mobile, Alabama was chosen because it is centrally located in the Florida panhandle and Alabama and Mississippi coastlines. The USCG Sector Commander for Mobile was named the FOSCR of ICP Mobile. ICP retained responsibility for directing response in the three-state area until efforts were consolidated into the GC-IMT on September 20, 2010.

The ICP Mobile FOSCR created Deputy FOSCR positions to respond to the large operational response area. One USCG Deputy remained at ICP Mobile to direct overall response operations. Other Deputies were designated as available to assist with daily ICP functioning. A senior USCG officer, designated as the Chief of Staff Mobile, managed USCG personnel and overall information flow. Three additional USCG deputies, along with RP deputy counterparts, forward deployed to Alabama, Florida and Mississippi in June 2010. Each was deployed with a small IMT to direct tactical planning and tactical operations from Branches or Forward Operating Bases (FOBs). In Florida, Branches were set up in Pensacola, Destin, Panama City, and Port St. Joe.

The Deputies worked directly with the staffs of the Alabama, Florida and Mississippi governors and provided a direct link to the FOSCR. These Deputies worked for the ICP Mobile FOSCR. As such, ICP Mobile set the daily response priorities and objectives and developed the IAP with input from the Branches. Deputies managed resources and logistics, and coordinated overall response

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34 All information in this section was taken from: United States Coast Guard, On Scene Coordinator Report: Deepwater Horizon, Submitted to the National Response Team September 2011. Page 13. Available at: http://www.uscg.mil/foia/docs/dwh/fosc_dwh_report.pdf
operations and outreach, including strategic and public communications. The state Deputies were authorized to conduct tactical planning and direct tactical operations through the Branches. The Deputies also performed local outreach to execute the IAP with respect to inshore skimming, booming, beach cleanup, and Vessels of Opportunity (VOO). ICP Mobile retained operational and tactical control of offshore and nearshore skimming because the task forces routinely worked across state boundaries, and skimmers were mixed to provide optimum results.35

4.2.2.2.5 ICP Miami

ICP Miami was organized at the end of May 2010. As a part of the Gulfwide strategy, ICP Miami was established to cover operations including ICP Key West and ICP St. Petersburg. The primary role of ICP Miami was to handle nearshore and shoreline response operations for peninsular Florida. Because of the limited amount of impact on the Florida peninsula, the response effort was minimal. ICP Miami was consolidated into GC-IMT on September 1, 2010.36

4.2.3 State and Local ICS Structure

The SERT was used to fulfill the state’s role in the response to the DWH incident (see Section 3.2.2 Florida’s CEMP). Soon after the establishment of ICP Mobile, Florida mobilized a team of emergency responders to embed and assist in the response effort. The Forward SERT was sent to ICP Mobile on April 28, 2010, and commenced establishing a State Management Team (SMT). On April 30, a state of emergency was declared in six northwest Florida counties: Escambia, Santa Rosa, Okaloosa, Walton, Bay, and Gulf.

The SEOC activated to a level two, and Executive Order 10-99 designated the FDEM Director as the State Coordinating Officer. This, in turn, stood up the Florida CEMP which acted as its ICS framework. To establish a local presence, beginning July 7, 2010, SERT along with State On-Scene Coordinators from the USCG established four operational Branches in northwest Florida which would also be used by the federal and RP efforts. These Branches were located in Pensacola, Destin, Panama City, and Port St. Joe.37

4.3 Operation during the DWH Event

DWH required a large response effort with many working parts. Each agency and government involved had a great desire to do the right thing and protect the Gulf, beaches, wildlife and general public that would be affected by oil. Each stakeholder, public and private, felt that the

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resources they possessed would be a valuable asset to the entire response effort. Because of the size of the response effort, coordination was necessary at all levels and disciplines. The following sections will describe how each of the necessary functions of emergency response and ICS were dealt with and how each agency involved worked to accomplish a successful response effort.

4.3.1 Command and Control

ICS is intended to have a streamlined Command and Control operation with single individuals making authoritative decisions and possessing signing authority. A Unified Command (UC) should be led by a single FOSC from one federal agency. Assisting the FOSC is an Incident Commander from each affected state, tribe, local community, and responsible party. Other federal agencies may act in an advisory position to the Unified Commander. The Unified Command (UC) at ICP Mobile employed multiple FOSCs with signing authority, while in ICP Houma federal agencies assisting the USCG acted in an advisory role with decision-making and signing authority held solely by the FOSC. The addition of FOSCs with signature power in ICP Mobile led to confusion and complicated the response effort.

According to the Incident Specific Preparedness Review prepared by the USCG, some missteps were made in implementing the guidelines set forth in the USCG IMH. The most notable instances included:

- multiple people were assigned to the same leadership position
- unnecessary positions were created
- inexperienced individuals were given charge over units staffed with up to 1,000 people

The NIMS/ICS doctrine states that the most qualified individuals should fill the leadership roles within ICS.38

The Florida SERT maintained a presence at multiple facilities during the response. First, SMTs operated at ICP Mobile and included a State IC and technical specialists who worked to stay informed with ongoing developments and coordinate with federal and other state’s technical specialists. Initially, the SMTs worked well in coordination with the federal response effort as effort was made to embed the state personnel. However, after some changes were made at ICP Mobile, the SMTs were physically separated from the operational work area which impaired the ability to keep close coordination and stay abreast of the situation. Eventually, state responders at ICP Mobile were integrated back into the operational structure and given seats near their

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counterparts. The second location from which Florida administered its CEMP was at the SEOC in Tallahassee, Florida. Multiple ESFs were activated and staffed per CEMP doctrine.

Leadership roles within the Forward SERT switched between the FDEM and Florida Department of Environmental Protection (FDEP) as needed, and ensured the proper personnel were used at each management level. The role of State Coordinating Officer (SCO) was filled by the Director of FDEM and the Secretary of FDEP also held a primary leadership role as the head of the lead state agency. These individuals led the state response effort in tandem and ensured that state responders and officials were coordinated and well-informed. 39

### 4.3.2 Information Gathering

The first step in evaluating the emergency at hand is gathering the required information. Information specific to DWH included wellhead discharge rate, plume characteristics, shoreline impacts. At the wellhead, the flowrate of oil discharging from the well was imperative for determining the level of effort needed to kill the well and the anticipated plume that would need to be contained. Beyond the well site, aerial and nautical reconnaissance was necessary to establish the limits of the oil plume and amount of shoreline that was being affected by oil and tar balls.

One of the central challenges in communicating about the response was developing a COP that all stakeholders could access. After initially being used to help with oil spill trajectory, on June 5, 2010, the NIC directed that NOAA’s ERMA would become a common operating picture. ERMA integrated and overlaid data provided by the USCG, Department of Homeland Security, the U.S. Fish and Wildlife Service, the Environmental Protection Agency, the National Aeronautics and Space Administration, U.S. Geological Survey, and the Gulf States into one interactive map that could produce customizable real-time data. One key aspect of ERMA was it allowed a scaled version of the common operating picture to be posted online as GeoPlatform.gov, where the public could view response status information.

The primary source for obtaining information on a macro-level was the utilization of aerial observation made possible through the Air Operations Branch and coordinated by the Aviation Coordination Center (ACC). The ACC utilized the Aviation Operations Center personnel and facilities based out of Tyndall Air Force Base. In addition to air observation, Shoreline Cleanup Assessment Technique (SCAT) teams were employed to determine the most accurate means for cleaning up oil that had reached the shoreline. SCAT performed under the Operations Section of the federal ICS structure and was instrumental in sharing information related to the cleanup.

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effort. To ensure accurate data was kept, Shoreline Inspection Report Forms were created. The parameters which the SCAT teams were tasked with observing were:

- Amount of oil
- Type of shoreline
- Wildlife habitat (types and number of species)
- Archeological or historical properties concerns

All SCAT teams that performed assessments on Florida's shoreline were deployed from ICP Mobile. Upon initiation of SCAT, FDEP deployed staff under ESF 10 to assist in scheduling personnel, contacting affected counties and reporting data to the state.

Florida employed supplementary means of tracking oil through deployment of its own reconnaissance assets and integrating the data collected into the Geospatial Assessment Tool for Operations and Response (GATOR). This allowed the state to refer to data more specific to effects on Florida shoreline and response efforts being performed. This effort was made possible through the participation of SERT and local government agencies, such as National Guard, Civil Air Patrol, and Florida Fish and Wildlife Commission (FWC), with real-time reporting being recorded through the ESF 5 Intelligence Unit (Reconnaissance). Individual counties were able to perform reconnaissance operations according to the availability of resources. These efforts were tied into the state reconnaissance system.

Further information gathering was performed at the state level by the Florida Department of Health (FDOH) through ESF 8. Because of public health concerns about the potential effects of oil from the spill, FDOH attempted to coordinate and document any health issues related to the incident. This included attempting to establish relationships with ICP Mobile and other affected state’s health agencies, but their efforts were oftentimes not enhanced or supported through the federal ICS structure. Also, in Florida, FDOH implemented Epidemiological Surveillance and Investigation, which was a means of determining the toxicity of the water and other public health impacts.

4.3.3 **Information Dissemination**

Once data is collected it can be assessed and disseminated for use by other sections in ICS or collected into releases for the public. With a response effort as large in geographic scope and multifaceted as DWH, communications became the largest challenge in maintaining a unified, informed response effort. Strategic communications were initially developed through the USCG

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implementing the JIC. This model is the typical method for information dispersion as prescribed in the USCG IM for oil spills. However, because of the DWH oil spill being deemed a SONS, the NIC assumed responsibility for any communication leaving the ICS structure.41

For communication within the response effort, ERMA was used and made available to responders but through restricted access. Also, a website was developed to be the public face of ERMA. ERMA also became a useful tool for tracking VOO. VOO were private vessels used for performing cleanup operations such as booming and skimming oil. A majority of the vessels were equipped with an Automatic Identification System and could be tracked via ERMA, thus bolstering information gathering and allowing such information to be available to the public.42

The UAC developed systems to keep state and local officials informed. To guarantee governors had immediate access to information regarding the response efforts, the IC for ICP Mobile assigned senior officers as Deputy ICs in Alabama, Florida and Mississippi. In Louisiana, the IC and FOSC were in-state. These Deputy ICs interacted with the governors and their staff through a dedicated liaison officer and in person. This arrangement made unity of effort and information sharing easier. Additionally, this system let all involved leverage their relationships and ensure the response organization was meeting the needs of the public. Each Deputy IC focused on states’ critical resource allocation, as well as state response activities, and served as the communications bridge between their state and the ICP. The IC then ensured the FOSC knew of those concerns.43

Florida actively attempted to keep citizens aware of the current state of the oil and oil spill response. Within the State EOC, ESF 14 – External Affairs, Public Information was responsible for media relations including interviews, press releases, and general updates. Members of the SERT were also dispatched to integrate in the JICs at the ICPs. Approximately two weeks after the spill commenced, the State began making information available for the public through the Florida Emergency Information Line (FEIL) and the Florida Oil Spill Information Line (FOSIL). Initially, FEIL was used, but it was supplanted by FOSIL after seven days of operation. FOSIL was staffed through a private contractor that could handle the volume of calls and inquiries and produce prerecorded messages for off-duty hours. Information available to residents included updates on the response activity, information on volunteer opportunities, protective tips, and safety and health information. Oversight was still performed by the state.44

42 Ibid., page 190.
4.3.4 Source Control

ICP Houston was responsible for coordinating all source control operations. Source control operations were those focused on containing oil at the well site and stopping the flow of oil from the discharge points at the sea floor. NIMS/ICS doctrine was followed to best provide the necessary organization and resource management for operations related to source control and well capping. The ICP organization included the setup of an IMT, each of the prescribed Sections, and a robust and focused Operations Section, which employed Branches and Task Forces for all facets of the source control operation. ICP post was staffed by and interfaced with the USCG, former Minerals Management Services (now the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE)), and representatives from the RP.45

4.3.5 Resource Procurement

Many of the responders had limited experience with oil spill response but were aware of the resources that would be needed for cleanup efforts. As a result, resources such as boom and skimmers became highly sought by all levels of responders (federal, state and local). After local responders came to the determination that the ACPs were outdated, they had a desire to assist in protecting their jurisdictions. This led to federal and local responders engaging in resource negotiations. Local emergency responders were accustomed to a bottom-up response effort based on the Stafford Act and this caused tension due to the ICS structure being setup so that UAC was responsible for resource brokering. At the state level, Florida’s SERT used funds received from BP to establish multiple Cells under ESF 10 to procure and maintain their own resources. The Contracting Cell was responsible for securing boom and skimmers and facilitating contracts with vendors.

Because of the massive amount of oil that was released into the Gulf of Mexico, it became imperative for responders to use the best available technology to contain and remove the oil from the water and beaches. The NIC released a Broad Agency Announcement that asked vendors to submit alternate technologies that could be implemented in the response effort. The response to this request quickly became overwhelming. UC and the ICP established Alternative Response Technology Evaluation System teams in the Operations Section to review submissions from vendors. These teams eventually reviewed more than 10,000 submissions. The USCG Research and Development Center staff filled the key positions in the review teams, but the staffing available was insufficient for the massive undertaking. The NIC also established the Interagency Technology Assessment Program (IATAP) to assist in the review of

submissions. The IATP received close to 4,000 submissions and reviewed approximately 96 percent of them.\textsuperscript{46}

Florida’s SERT also reviewed proposals of alternative technologies. FDEP, under ESF 10, also established an Innovative Technology Cell, which reviewed submissions and also held two beach demonstrations on available technology.\textsuperscript{47}

\section*{4.3.6 Resource Deployment}

The deployment of resources was the largest component of the response effort. The Operations Section of each ICS unit worked to ensure that oil was contained, disposed of, and cleaned up, and that environmentally-sensitive areas were protected. As resources were procured by each ICS unit, planning was performed to determine the best location for the resource (see Section 3.3.8 Strategic Planning, below). The majority of required resources (i.e., boom, skimmer and fire boom) were deployed primarily using VOO. The VOO fleet was recruited through the Logistics Section, contracted by BP (the RP), and operated under the Operations Section. Once contracted, the VOO fleet was financed and logistics were managed by the RP.\textsuperscript{48} Operations were divided among Dispersant Application, In-Situ Burn Operations, Skimming, and Shoreline Protection. Because of political pressure and the size of the response effort, NIMS/ICS doctrine was not always followed within the Operation Section and some operations were performed outside the chain of command.\textsuperscript{49}

The state and local county operations had a great desire to assist in the overall operations of the response effort and especially within their jurisdiction. The \textit{SERT After Action Report} reflects the overall sentiment that locals were not fully utilized by the federal ICS and RP operations. Prior to the establishment of the local Branches, the state and local responders were not privy to the command and control of the VOO.\textsuperscript{50}

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\textsuperscript{46} United States Coast Guard, \textit{On Scene Coordinator Report: Deepwater Horizon}, Submitted to the National Response Team September 2011. Available at: \url{http://www.uscg.mil/foia/docs/dwh/fosc_dwh_report.pdf}


\textsuperscript{48} United States Coast Guard, \textit{On Scene Coordinator Report: Deepwater Horizon}, Submitted to the National Response Team September 2011. Page 111. Available at: \url{http://www.uscg.mil/foia/docs/dwh/fosc_dwh_report.pdf}

\textsuperscript{49} National Response Team, \textit{NRT Assessment Report: Feedback from the Deepwater Horizon Oil Spills}. May 31, 2012. Available at: \url{http://www.nrt.org/Production/NRT/NRTWeb.nsf/AllAttachmentsByTitle/SA-1079_NRT_Improvement_Plan_FINAL_5-31-12.pdf/$File/NRT_Improvement_Plan_FINAL_5-31-12.pdf?OpenElement}

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4.3.7 Policy Review and Implementation

NIC and specifically the IASG took responsibility for developing policy related to the entire response effort. The IASG was staffed primarily by NRT members. According to NCP doctrine, the NRT is to be the primary consultant on NCP policy at the top organizational level. Upon initiation, the IASG worked as an incident-specific work group of the NRT. The IASG was composed of seven subgroups that worked to coordinate government policy and make procedural recommendations. These subgroups were:

- Countermeasures and Alternative Technology
- Community and State Engagement
- Flow Rate and Subsea Analysis
- Economic Solutions Team
- Ecosystem
- Archeological, Cultural Impact
- Integrated Services Team
- Public Health and Safety

Daily conference calls facilitated the dissemination of policy papers to departmental leaders, NIC, the FOSC, and responders.

As federal policy was developed, each state was responsible for determining the applicability of the federal policy to their state and determining how its own policies, existing or new, would facilitate the implementation of those policies. Policies related to Florida came under the responsibility of the SERT IC. At times, SERT became burdened with policy review that could have been performed at a higher federal level. SERT had a desire to focus more on implementing tactical policy than to vet scientific reports and policy that might not have any implications on state waters or land.

4.3.8 Strategic Planning

ACPs are developed under the NCP to guide federal, state, and local actions in response to a spill. Development of the ACP falls under the responsibility of the Area Committee—composed...
of federal and nonfederal partners—within each USCG sector. Upon review of the ACPs immediately after the spill, many ACPs were found to be outdated and not relevant to the current needs and concerns of the area. Locals had not fully engaged in the ACP development process and, thus, a situation of planning on-the-go developed. In addition, few involved in the area contingency planning process had foreseen or anticipated an event as widespread and multi-faceted as the DWH incident.

Because of the lack of local involvement in the ACP process prior to the spill, it became evident that changes to the ACP would need to be developed by the USCG working with local and state officials. This process was known as ACP 2.0. Local authorities and politicians worked with USCG officials to draft a revised ACP to re-identify and prioritize environmentally sensitive areas and rework booming strategies.

Each ICS unit developed a robust Planning Section in each of its respective organizations. The Planning Section took on multiple roles in the response related to planning short-range and long-range objectives. Within UAC, the Planning Section developed the Area Command Operating Guide (ACOG) based on direction from the FOSC. The ACOG was then used by the Planning Sections in the ICPs to develop IAPs. The IAPs contained the intended activities to be included in the next operational period. The operational period for the DWH spill response was 24 hours. In the beginning stages of the response, the IAPs were cumbersome because of the amount of information in the report and the changing metrics that were being used to track the progress of the response. In time, the IAP was standardized and the UAC began directing information flow through one focused collection point.  

Florida SERT’s interaction with the ICP Mobile Planning Section was not amenable to an efficient response effort. Because of the large volume of meetings and documents, the planning process seemingly became “more important than the product itself”.

4.3.9 Finance and Reimbursement

The Finance Section of the ICS structure was organized to follow the structure laid out in the USCG IMH. The RP also developed a Finance Section in its response structure to mirror the USCG’s. These two organizations worked closely to ensure that ICS and USCG and BP protocols were met. To assist in maintaining a proficient staff, technical specialists were used as needed throughout the Section. The Finance Section was decentralized throughout the ICS facilities. This allowed finance personnel to have direct interaction at the incident level and the

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command staff level. However, a decentralized operation reduced the amount of overall control and coordination of financial documentation.

Typically, Finance and Logistics Chiefs work together to establish a streamlined process for the resource request and ordering process in the ICS structure. The standard ICS Resource Request Form was utilized, ICS-213RR, and after requests were approved by the Logistics Section Chief, the Finance Section Chief was given responsibility for procuring the resource requested on the form. Requests facilitate resources available from within the ICS structure, and orders facilitate resources outside the ICS structure. During DWH, thousands of requests were made through the ICS organization. Another aspect of the financial duties performed was that of developing reimbursement agreements. These agreements were made with federal, state and local governments and agencies and required on-the-spot negotiations. The reimbursement process required a high level of oversight and regulation by finance staff in ICS and outside agencies. Because of the massive response effort performed, it became imperative to develop processes that could reduce the electronic data input requirements and audit trail.  

The Florida SERT and local counties were not technically in the ICS structure and, therefore, relied on the reimbursement process to cover any costs that were incurred during the response. The SERT After Action Report states that “conflicting and changing guidance hindered the reimbursement process.” Counties in northwest Florida experienced a similar situation, stating a frustration with the claims and reimbursement process throughout the response.

4.4 Gulf Coast Incident Management Team

On September 20, 2010, due to the diminishment of the response effort, the ICPs were dissolved and Operations were consolidated into the GC-IMT. The GC-IMT enacted as the ICPs were dissolved. The location of the GC-IMT was placed in the UAC facility in New Orleans. Eventually, UAC was also dissolved and the GC-IMT became responsible for all response functions. Four phases are associated with the GC-IMT:

- Phase I – Discovery or notification
- Phase II – Preliminary assessment and initiation of action

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58 Interviews with Escambia, Okaloosa, and Santa Rosa Counties Emergency Response Teams (8/13/2012, 8/29/2012, and 9/5/2012 respectively)
Phase III – Containment, countermeasures, cleanup, and disposal

Phase IV – Document and cost recovery (occurs coincidentally with Phases I-III)

4.4.1 Current Status of the Gulf Coast Incident Management Plan

Currently, the GC-IMT is in Phase III of the response activities. On May 10, 2012, the GC-IMT published the Phase III Response Activities Completion plan. Phase III is defined as Containment, Countermeasures, Cleanup and Disposal. This document states the objectives and priorities for a successful Phase III operation and thus complete removal.

Objectives:

- Provide an organizational structure to implement and complete the Shoreline Cleanup Completion Plan (SCCP) activities, support USCG National Response Center (NRC) report response efforts in the DWH Response Area of Responsibility and continue to optimize GC-IMT staffing as Phase III activities progress.

- Ensure continuity of operations in segments undergoing treatment prescribed by the SCCP to ensure the appropriate shoreline cleanup activities have been accomplished. Phase III treatment of MC252 oil-affected shoreline segments in accordance with the SCCP will continue until removal actions are deemed complete by the FOSC. Activities will be deemed “removal actions are complete” by the FOSC for segments that have been confirmed as meeting requirements established in the SCCP.

- Maintain communications and adhere to ICS principles, key procedures and internal processes to support DWH Response priorities.

- Maintain surge resource capabilities to support Phase III activities.\(^60\)

The following are priorities set by the GC-IMT to ensure that the above objectives are met and GC-IMT protocols are followed:

- Ensure the continued safety of all response personnel

- Direct the conduct of shoreline treatment as required

- Coordinate the timely response and investigation to NRC reports of possible MC252 oil on shoreline segments in the Area of Responsibility

- Direct the appropriate response to be undertaken by BP

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• Maintain federal, state, tribal, local, and RP collaboration and partnerships
• Allocate adequate resources and support to enable communication and connectivity between GC-IMT leadership
• Continue to oversee Phase IV Documentation and Cost Recovery activities
• Ensure documentation is preserved in accordance with the NCP

The USCG, BP, Department of Interior, and each of the affected states are performing Phase III activities to differing extents. Figure 7 illustrates the current GC-IMT organizational structure.


Figure 7. GC-IMT organizational structure.

GC-IMT NRC data reporting process during Response Activities is depicted in Appendix A.

4.4.2 Florida's Role in the Implementation Plan

According to the GC-IMT Phase III Response Activities Completion Plan, Florida will continue to oversee all statewide response activities pertaining to DWH. To fulfill this responsibility, Florida will provide a State On-Scene Coordinator (SOSC), a Scientific Support Coordinator (SSC), a

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State Branch Liaison, and SCAT team representatives. These positions are anticipated to remain in effect throughout Phase III activities as described below.62

4.4.2.1 Florida’s State On-Scene Coordinator

The SOSC will maintain his/her position as the “voice of Florida’s citizens and local and state government officials.” The SOSC will remain deployed in New Orleans on the GC-IMT until the Florida SOSC (in consultation with his/her constituents, FDEP and the FOSC) determines that the job duties can be performed remotely. It is anticipated that as more posts are removed from active response in accordance with the SCCP, that the opportunity for remote management of the response will increase.

4.4.2.2 Scientific Support Coordinator

The Florida SSC will continue to support the SOSC, providing technical advice and serving as the backup SOSC as needed. The SOSC will continue to schedule the SSC’s time in New Orleans to coincide with critical meetings and to serve as the SOSC as necessary. Remote assistance will be provided by the SSC when he/she is not physically in New Orleans.

4.4.2.3 State Branch Liaison

The Florida Branch State Liaison will continue to provide full-time support to the DWH Response coordinating branch activities, supervising and coordinating FDEP SCAT team members, and assisting the SOSC with local government and citizen liaison activities. It is anticipated that this position’s duties will not change for the duration of Florida Phase III activities.

4.4.2.4 SCAT Team Representatives

Florida will continue to provide SCAT team representatives to support DWH response activities. It is anticipated that, as the number of active Florida shoreline segments continues to decline and the Post Hurricane Season Inspections are completed, the number of SCAT team representatives will be reduced. One team representative will continue to support the State Branch Liaison as his/her alternate and provide assistance with segment status tracking throughout remaining Florida Phase III activities.

5 Effectiveness of ICS during the DWH incident

The ICS is a flexible, scalable and integrated organizational structure. The fundamental design of the ICS was appropriate given the complexity and demands of the DWH incident and allowed personnel to coordinate and communicate without being hindered by jurisdictional boundaries. While the ICS is indeed a sound framework, its use during the DWH response was hampered because of span of control challenges during the rapid escalation of the command structure in response to the disaster. In addition, the ICS failed to develop and implement a comprehensive, integrated communication and planning system for all parties involved in the response, including the news media. This section highlights the effectiveness of the ICS implementation and explains why, in some cases, such actions were unable to deliver positive outcomes.

5.1 Scalability and Span-of-Control

All ICS structures are scalable, and as such can be implemented to respond to any size disaster with an adequately sized response force. However, in the initial weeks following the DWH incident, there was some confusion and major challenges in ramping up a responsive command structure capable of handling the size and scope of issues related to capping the well, monitoring oil movement, preventing contamination of sensitive coastal areas, conducting cleanup operations and handling a wide array of communications, funding and research needs. As the scope and complexity of the oil spill became clearer, the FOSC was able to scale-up the response activities and manage most operations satisfactorily. The flexibility of the ICS was evident in that the FOSC was able to implement a fully functioning UC capable of directing, supporting and assisting the ICPs and coordinating with the RP.

Additional challenges were involved in engaging affected states and standardizing practices across the response, and brokering resources—particularly boom, skimmers and personnel. This effort proved to be quite difficult and was never fully accomplished. The difficulty found in integrating state and local personnel might be attributable to a failure to anticipate such a large event by the NCP’s technical guidance and is likely not a reflection of the ICS. Other missteps were made during the DWH response, including assigning multiple people to leadership positions, creating unnecessary positions and giving authority to inexperienced individuals, even though the NIMS/ICS doctrine states that the most qualified individuals should fill the leadership roles within ICS.

Conversely, there were instances where too much focus and effort led to problems. For example, multiple FOSCs were created at ICP Mobile to oversee specific response tasks, but this
unfortunately created more confusion and complicated the response effort for individuals and RP. ICP Mobile quickly became too large to function adequately and suffered the effects of a command structure that was burdened by redundancy and bureaucracy. ICS places great weight on creating an adequate response force that neither falls short nor overreaches in its efforts.

5.2 Communication among Federal, State and Local Entities

During the initial response efforts, the SMTs worked in coordination with the federal response effort, primarily because steps were taken to embed the state personnel with federal personnel at the federal facilities. However, after some changes were made at ICP Mobile, the SMTs were separated from the operational work area and the ability to be informed of on-going developments was inhibited. The ICS states that continued effort must be made to integrate all levels of responders to ensure effective coordination and avoid duplication and misunderstandings. Despite multiple efforts to integrate all levels of government into the NCP activities, many state and local officials felt that they were not adequately consulted or included in response efforts, and were frustrated by approval procedures for response actions and cost reimbursement.

An additional problem during response to DWH was confusion amongst the general public. Concerns were raised regarding the amount of government authority and oversight over the response effort and, more pointedly, the RP. Citizens were unaware of who held decision-making responsibility. And lastly, the large amount of oil in the water caused public health and food safety concerns to arise.

There were also deficiencies in the necessary planning for such an incident. Many state and local officials were not familiar with the NCP and ICS structure, and had contingency plans in place that did not fully anticipate the actions required to respond to such an event. The ICS promotes routine planning exercises which are intended to educate all potential members of the response community on NIMS/ICS policy and procedures, which develops a relationship at all levels for a unified effort when an incident occurs. However, there was an overall lack of the level of training required to prepare responders for a multi-state event like DWH. All in all, there was a significant lack of state and local understanding of the NCP and confusion regarding roles in response efforts.
A novel attempt to keep state and local officials informed was developed during the DWH response by the UAC. To provide governors with immediate access to information regarding the response efforts, the IC for ICP Mobile assigned senior officers as Deputy ICs in Alabama, Florida, and Mississippi. In Louisiana, the IC and FOSC were in-state. These Deputy ICs interacted with the governors and their staff through a dedicated liaison officer and in-person. This arrangement helped to foster a more unified effort and, facilitated information sharing, relationship building, and let all involved leverage their relationships to meet the needs of the public.

5.3 Sharing of Information, Data and Monitoring Results

Information sharing is a key aspect of the success of the ICS. Several entities and protocols are responsible for compiling and distributing information to entities involved in the response effort. The NIC provides a coordinating vehicle to share information with critical infrastructure and key resources information-sharing entities. Additionally, within the UC, acknowledgement of each representative’s unique capabilities, a shared understanding of the situation and agreement on the common objectives must be established prior to beginning response activities.

Because of the massive amount of oil that was released into the Gulf, it became imperative for responders to use the best available technology to contain and remove the oil from the water and beaches. The NIC released a Broad Agency Announcement that asked vendors to submit alternate technologies that could be implemented in the response effort. The response to this request quickly became overwhelming. In response, the NIC established the IATAP to assist in the review of submissions. The IATP proved to be very effective; it received close to 4,000 submissions and reviewed approximately 96% of them.

With a response effort as large in geographic scope and multi-faceted as DWH, communications became the largest challenge in maintaining a unified, informed response effort. Strategic Communications were initially developed through the USCG implementing the JIC. Once the oil spill was deemed a SONS, the NIC assumed responsibility for any communication leaving the ICS structure. Because of the scope and complexity of the DWH response effort, the NIC along with the RP reduced the transparency of the response efforts and state and local representatives were excluded from such information sharing arrangements. This, combined with a lack of state inclusion at the ICP level, left state information officials to gather and disseminate information on their own outside of the ICS structure.
6 Recommendations for the Incident Command System

The breadth and complexity of the ICS is quite impressive. However, in the case of the DWH incident, challenges related to rapid command mobilization, communication needs, and span of control issues caused some delay in achieving a fully functioning, effective and efficient Incident Command System. Since the DWH oil spill in April 2010, at least three committees in both the U.S. House and Senate have held hearings on issues associated with the incident. Furthermore, a multitude of after action reports, lessons learned summaries, and improvement plans have been prepared by government agencies and NGOs. All of these have introduced multiple proposals that would address various issues including the regulatory regime for oil exploration, liability and compensation for damages, response activities, and technological issues faced during the spill.

Future governmental activity may be influenced by several factors, including conditions in the response region, independent inquiries, judicial actions, and the availability of data for further study. As multiple state and federal agencies seek to better oil spill preparedness and response capabilities, it will be important to understand the current framework for addressing such incidences.

The following should be considered for improved use of the ICS in future incidents:

- Address rapid command mobilization challenges by engaging state and local partners earlier through Operations Section branch structures that are established and oriented under the ACP process.
- Make ICs more aware of – and more capable of responding to – challenges posed by span of control issues during command mobilization.
- Implement training for government officials (elected and staff) on ICS and emergency response protocols for dealing with oil spills.
- Enhance communication program development with ICS structures at all levels of government.
- Develop further guidance on SONS/NIC that integrates ICS doctrine, specifically JIC and PIOs.
6.1 Need for pre-event orientation and training (coordination, drills, information sharing, etc.)

The NIMS/ICS doctrine has been adopted at all levels of government for response to all types of emergencies. This necessitates that all potential responders should be trained on basic ICS doctrine. With this in mind, the following should be considered:

- State and local response plans should be more directly integrated and coordinated with RCPs and ACPs. Local county officials could advise the SOSC on local coordination strategies.
- The NRT should develop standardized guidelines for RCPs.
- The NRT and RRTs should promote best practices and lessons learned across RRTs and Area Committees.

One of the primary reasons that the ICS structure did not work effectively at times during the response is that responders at all levels of government lacked familiarity with its structure, and that state and local officials were not successfully integrated into the ICS. Therefore, the following recommendations should be considered to improve familiarity of the NCP implementation of ICS at all levels of government:

- NCP training activities should occur on a regular basis and periodically include a SONS event.
- The SOSC and SERT should ensure that all appropriate state and local representatives are invited and that participation is appropriately high.
- State and local officials could advise the SOSC and SERT on invitations and response rates, including how to increase low participation rates.

6.2 Approaches for Scaling and/or Adjusting for Large Events

ICS guidance should be reviewed to ensure that policies and procedures clearly specify responsibilities and assignments for public agencies and RPs related to a SONS. For example, the experience during DWH indicates that involving the RP in decisions regarding oil spill movement monitoring and coastal response mobilization, protection, and cleanup is not appropriate – these should be directed by the FOSC.

Another challenge relates to the USCG jurisdictional split in Florida. The One Gulf Plan was developed to address the shared threat of oil spills facing Gulf States. However, Florida is divided between two USCG Districts and thus governed by two separate RCPs. It is not clear whether or how these two plans are integrated. The One Gulf Plan should be clearly aligned with
Finally, a review of the DWH response elicited a number of miscellaneous but important recommendations for future oil responses. These are listed below; many if not most can be addressed through better contingency planning and ICS establishment.

- Require the Federal Emergency Management Agency (FEMA) to include federal, state, and local personnel in NIMS/ICS training. The role of the FOSC and RP in approving and expediting requests under the Oil Spill Liability Trust Fund should be clarified through technical guidance (e.g., consistency in form and applications, whether or under what conditions can permits be waived).

- The ability of governors to direct resources provided by the RP or after a State of Emergency is declared should be clarified through technical guidance.

- Area Committees should develop protocols for pre-event oil spill response contracts (e.g., Cooperative Agreements or Memorandum of Understandings), similar to those established for Stafford Act events, to be included in ACPs.

- State and local officials should establish pre-event oil spill response contracts as outlined through ACP protocol.

- RRTs and Area Committees should include public outreach components for the recommended protocol development for the use of dispersants, beach and fisheries closures, public outreach mechanisms, development of fact-sheets, etc. USCG and EPA should direct NRTs and RRTs to improve outreach and educational efforts in an ongoing effort to better explain the National Response System (NRS) and National Contingency Plan to policymakers, state and local governments, and other stakeholders.
Appendices

Appendix A: GC-IMT Data Reporting Process during DWH

*Illustrates the GC-IMT NRC Data Reporting Process, which will ensure that NRC data are presented to the FOSC and UC (see next page).*
State Watch Office Generates NRC Notification

NRC Receives Initial Notification OR Public Notifies GC-IMT Directly of Suspected Oil Spill

NRC Notifies Sector; Sector Notifies CG-IMT

USCG Branch Responder Forwards Data To Sector And GC-IMT NRC Coordinator

USCG Branch Responder Forwards Data To Sector And GC-IMT NRC Coordinator

NRC Coordinator at GC-IMT Compiles Data for FOSC and UC Reports

FOSC, UC & GC-IMT Staff Review Weekly NRC Response Data For DWH
**Appendix B: Abbreviations and Acronyms**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACC</td>
<td>Aviation Coordination Center</td>
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<tr>
<td>ACP</td>
<td>Area Contingency Plan</td>
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<tr>
<td>BOEMRE</td>
<td>Bureau of Ocean Energy Management, Regulation and Enforcement</td>
</tr>
<tr>
<td>BP</td>
<td>British Petroleum</td>
</tr>
<tr>
<td>CEMP</td>
<td>Comprehensive Emergency Management Plan</td>
</tr>
<tr>
<td>CST</td>
<td>Central standard time</td>
</tr>
<tr>
<td>DEM</td>
<td>Division of Emergency Management</td>
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<tr>
<td>DHS</td>
<td>Department of Homeland Security</td>
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<tr>
<td>DWH</td>
<td>Deepwater Horizon</td>
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<tr>
<td>ECO</td>
<td>Emergency Coordination Officer</td>
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<tr>
<td>EEZ</td>
<td>Exclusive Economic Zone</td>
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<tr>
<td>EMAC</td>
<td>Emergency Management Assistance Compact</td>
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<tr>
<td>EMS</td>
<td>Emergency Medical Services</td>
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<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
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<tr>
<td>ERMA</td>
<td>Environmental Response Management Application</td>
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<tr>
<td>ESF</td>
<td>Emergency Support Functions</td>
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<tr>
<td>FCO</td>
<td>Federal Coordinating Officer</td>
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<tr>
<td>FDEM</td>
<td>Florida Division of Emergency Management</td>
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<tr>
<td>FDEP</td>
<td>Florida Department of Environmental Protection</td>
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<tr>
<td>FDOH</td>
<td>Florida Department of Health</td>
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<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
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<tr>
<td>FOSC</td>
<td>Federal On-Scene Coordinator</td>
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<tr>
<td>FOSCR</td>
<td>Federal On-Scene Coordinator Representative</td>
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<tr>
<td>FOSIL</td>
<td>Florida Oil Spill Information Line</td>
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<tr>
<td>FEIL</td>
<td>Florida Emergency Information Line</td>
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<tr>
<td>FWC</td>
<td>Florida Fish and Wildlife Commission</td>
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<tr>
<td>GATOR</td>
<td>Geospatial Assessment Tool for Operations and Response</td>
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<tr>
<td>GC-IMT</td>
<td>Gulf Coast Incident Management Team</td>
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<tr>
<td>GIS</td>
<td>Geographic Information System</td>
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<tr>
<td>IAP</td>
<td>Incident Action Plan</td>
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<tr>
<td>IASG</td>
<td>Interagency Solutions Group</td>
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<td>IATAP</td>
<td>Interagency Technology Assessment Program</td>
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<tr>
<td>IC</td>
<td>Incident Commander</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>ICP</td>
<td>Incident Command Post</td>
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<tr>
<td>ICS</td>
<td>Incident Command System</td>
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<tr>
<td>IMH</td>
<td>Incident Management Handbook</td>
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<td>IMT</td>
<td>Incident Management Team</td>
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<td>ISB</td>
<td>In-situ Burn</td>
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<tr>
<td>JIC</td>
<td>Joint Information Center</td>
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<tr>
<td>JIS</td>
<td>Joint Information System</td>
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<td>MACS</td>
<td>Multiagency Coordination System</td>
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<tr>
<td>MC252</td>
<td>Macondo Prospect, Mississippi Canyon Block 252</td>
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<tr>
<td>NCP</td>
<td>National Oil and Hazardous Substance Pollution Contingency Plan</td>
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<tr>
<td>NGO</td>
<td>Nongovernmental Organization</td>
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<tr>
<td>NIC</td>
<td>National Incident Command</td>
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<tr>
<td>NIMS</td>
<td>National Incident Management System</td>
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<tr>
<td>NOAA</td>
<td>National Oceanic and Atmospheric Administration</td>
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<tr>
<td>NRDA</td>
<td>Natural Resource Damage Assessment</td>
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<tr>
<td>NRDAR</td>
<td>National Resource Damage Assessment and Restoration</td>
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<tr>
<td>NRF</td>
<td>National Response Framework</td>
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<tr>
<td>NRS</td>
<td>National Response System</td>
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<td>NRT</td>
<td>National Response Team</td>
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<tr>
<td>PIO</td>
<td>Public Information Office</td>
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<tr>
<td>RCP</td>
<td>Regional Contingency Plan</td>
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<tr>
<td>RP</td>
<td>Responsible Party</td>
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<tr>
<td>RPIC</td>
<td>Responsible Party Incident Commander</td>
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<tr>
<td>RRT</td>
<td>Regional Response Team</td>
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<tr>
<td>SAR</td>
<td>Search and Rescue</td>
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<tr>
<td>SCAT</td>
<td>Shoreline Cleanup Assessment Technique</td>
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<tr>
<td>SCCP</td>
<td>Shoreline Cleanup Completion Plan</td>
</tr>
<tr>
<td>SCO</td>
<td>State Coordinating Officer</td>
</tr>
<tr>
<td>SEOC</td>
<td>State Emergency Operations Center</td>
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<tr>
<td>SERT</td>
<td>State Emergency Response Team</td>
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<tr>
<td>SMT</td>
<td>State Management Teams</td>
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<tr>
<td>SONS</td>
<td>Spill of National Significance</td>
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<tr>
<td>SOSC</td>
<td>State On-Scene Coordinator</td>
</tr>
<tr>
<td>SSC</td>
<td>Scientific Support Coordinator</td>
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Florida Commission on Oil Spill Response Coordination

Report 2: An Analysis of the Effectiveness of the Use of the Incident Command System in the Deepwater Horizon (DWH) Incident

SUPSALV  Supervisor of Salvage and Diving
UAC     Unified Area Command
UC     Unified Command
USCG United States Coast Guard
VOO Vessels of Opportunity