

**Meeting the Changing National Preparedness and Response Needs for the Public in a Crisis**

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**ABSTRACT**

Today, 24/7 news and social media herald, “Another Disaster!” The gap widens between public expectations – what is wanted – and what government emergency responders can deliver. Further, public trust in government evaporates when individual stakeholders fan anger, fear and frustration, through social media blogs and other media. The authors analyze current U.S. policy guidance, IOSC papers, after-action reports, and practitioner experience to identify gaps where stronger guidance, connectivity, and effort could improve emergency response and preparedness. US efforts will be contrasted with international standards published and implemented in Europe. US Coast Guard incident management doctrine now requires engagement and coordination with the broad range of community and leadership stakeholders. Meeting the concerns of that broader set of stakeholders requires: 1) a significant commitment of resources by industry and government to address the needs of stakeholders, and 2) the development of skills in crisis responders, and their leaders, that can assure the confidence (trust) of their community. The authors’ recommendations focus on improving shared responsibilities for successful collaboration in the following general areas: 1) the role of government, policy and regulation, to insure proper early actions during large incidents and spills of national significance; 2) the roles of leaders, their preparedness and capabilities to manage the incident in the role of the Incident

Commander; 3) plans needed to meet information management demands of large complex organizations stood up during a catastrophic incident; and 4) the development of collaborative and coordination approaches to meet the needs of stakeholders both inside and outside of the response organization.

## **PROBLEM STATEMENT**

For responders during an oil spill which the public views as a disaster, traditional U.S. Oil and Hazardous Substances Pollution National Contingency Plan (NCP) interrelationships are impacted by the National Response Framework (NRF). Legislators, private companies, citizens and stakeholders are confused by the difference between responses under the current NCP (EPA 1994), which was revised following the passage of the Oil Pollution Act of 1990 (OPA90) and those under the NRF (FEMA 2016); reconciling the apparent disconnects is a challenge. In 2005, when President Bush signed Homeland Security Presidential Directive Five (HSPD 5) to improve the nation's ability to coordinate catastrophic incidents, he directed federal agencies to adopt the National Incident Management System (NIMS) and also designated the Secretary of the Dept. of Homeland Security (DHS) as the Principle Federal Official (PFO) for large disasters. As articulated in the NCP, oil spills in the US are managed using Unified Command, which is comprised of the Federal On-scene Coordinator (US Coast Guard or EPA), State On-scene Coordinator (SOSC), and the Responsible Party (RP), i.e., the entity responsible for cleaning up the spill. Over a decade since the formation of the DHS and subsequent to many post-incident reviews and changes to the department, Congressional concerns remain (H.R. 6381, 2016).

This paper recommends improvements to NCP response and preparedness that also benefit NRF activities. The authors agreed that numerous efforts to improve the NRF and the

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NCP after the Deepwater Horizon (DWH) incident continue but are yet to be finalized. The authors also identified improvements to the National Response System (NRS) and the NCP to enhance preparedness and response. First, changes to NCP policy and regulatory requirements are needed to improve the ability of the primary agencies to respond to catastrophic incidents muster more effective “whole of government” and “whole of society” response strategies. Secondly, crisis leadership training lags what is actually necessary for response which is considered effective. Many incident leaders find themselves in roles and situations where actions fall short of what is expected amongst stakeholders, citizens, and the media. These challenges point to an acute need to improve training for all incident leaders from the tactical to the strategic level. Third, information management challenges must be addressed to account for rapid and transparent spread of news via traditional and social media. Further, local municipalities and communities have reporting networks to deal with emergencies, e.g., accidents, spills, other incidents, that rapidly connect with affected communities and are in the public spotlight. Finally, an ongoing gap exists in efforts to effectively coordinate and communicate with affected stakeholders. This challenge is made all the more difficult by the way the NCP is reflected within the NRF and the fact that the NCP primarily focuses on mitigating environmental pollution during preparedness and response, rather than public health and welfare impacts. This leads to a gap to rapidly address the risk perceptions, questions and concerns of oil spill stakeholders, especially at the local and community levels, which in turn results in an increasingly hostile backdrop of complex and competing demands on the incident management team.

**METHOD**

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To identify key areas for improvement, the authors reviewed the post-incident reports in relation to the incident review categories shown in Table 1, which were derived from the Best Response model (Ott et al., 1999, Kuchin and Hereth 1999).

**Table 1. Incident Review Categories**

<i>Category (Key Business Driver)</i>	<b>Law, Reg. Policy (LRP)</b>	<b>Information Mgmt.</b>	<b>Economy</b>	<b>Public Communication</b>	<b>Human Health &amp; Safety</b>	<b>Stakeholder Service &amp; Support</b>	<b>Natural Environment</b>	<b>Organization</b>
<i>% of report recommendations</i>	29%	14.3%	.01%	8.4%	8.1%	14%	3.5%	21.6%
<i>Totals</i>	196	97	5	57	55	94	24	146

The review focuses on how those outside the incident management organization view the response, rather than operational, logistical, and technical aspects. After-action findings from both NCP and NRF incidents, commission reports, and Incident Specific Preparedness Reviews (ISPR) were grouped into categories derived from the USCG Best Response model. The reviewed reports and categories are shown in Table 2.

Table 2 compares after action reports from major incidents since the attacks of September 11<sup>th</sup> against the Key Business Drivers and Critical Success Factors of the Best Response model, which is the established management model that drove many USCG pollution response policy improvements prior to Deepwater Horizon. For example, the 2000 version of the JIC Manual, published by the National Response Team (NRT), was developed to improve and address Crisis Communications. Today the model remains in policy as reflected in USCG COMDTPUB P3120.17B. The Best Response model with its associated Key Business Drivers was used to screen after action reports and commission findings to group report findings (Ott, 2001) as shown in Table 2.

**Table 2. Summary of Findings for Reviewed Reports**

<i>Report KBD Category</i>	<b>1 9/11 Report</b>	<b>2 Commission Report - BP</b>	<b>3 Boston Marathon</b>	<b>4 Sandy Report</b>	<b>5 FEMA Sandy Report</b>	<b>6 Katrina Report</b>	<b>7 ISPR DWH</b>	<b>8 ISPR Cosco Busan</b>	<b>9 NIC Report</b>	<b>Total</b>
<i>Law, Regulation, Policy (LRP)</i>	22	15	7	6	3	34	66	35	8	196
<i>Information Mgmt.</i>	9	-	5	10	2	-	34	35	2	97
<i>Economy</i>	3	-	-	-	-	1	-	1	-	5
<i>Public Communication</i>	-	2	5	7	3	17	11	12	-	57
<i>Human Health &amp; Safety</i>	-	6	16	13	3	11	2	4	-	55
<i>Stakeholder Service &amp; Support</i>	1	1	13	6	2	16	20	35	1	95
<i>Natural Environment</i>	-	2	-	-	-	2	10	10	-	24
<i>Organization</i>	7	2	17	17	6	17	28	48	4	146
<i>Total Observations</i>	42	28	63	59	19	98	171	180	15	675

Report 1 One recommendation had multiple parts raising the total to 42 from 40.

Report 2 Three observations relate to research as well. Most reports reviewed called for additional research to some extent.

Report 3 One observation relates only to training; observations related to exercises assigned to stakeholders.

Report 7 Recommendations were considered given they are in response to identified Lessons learned.

For example, the 2008 oil spill in San Francisco Bay from the M/V Cosco Busan initial response was an operational success, but considered a failure from many in the area.<sup>1</sup> Public perceptions of the response did not align with the views of responders, due in part to ways of looking at response success as well as information management and external communication challenges. Once public perceptions about response effectiveness deteriorated, incident leaders were unable to restore the local community's confidence in them. In this paper we propose

<sup>1</sup> Cosco Busan ISPR, 11 Jan 2008, pg. 4. Compared to other spill responses, this response operational was highly successful effort because nearly 50% of the spilled oil was recovered when evaporation is taken into account within the first two weeks, compared to the average oil recovery range of about 15-20%.

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solutions to these types of challenges (Fearn-Banks, 1996). An additional category, i.e., LRP, was added to encompass recommendations to improve either regulations or law, or suggested improvements in policies derived from legal regulatory requirements. For example, recommendation #24 of the 2013 after-action report (AAR) to the Boston Bombing cites the need to "...Develop and distribute HIPAA guidance for emergency situations." Implementing this requires changes to local and state ordinances, as well as hospital regulations.

**DISCUSSION – NRF influences the NCP, and vice versa**

The focus of this paper is identifying changes to improve NCP outcomes. To do this, the impact of the nation's overarching preparedness system and the NRF's adoption upon the NCP must be taken into account. When DHS released the first edition of the NRF in 2008, Coast Guard planners started revising NCP and NIMS related policies. Shortly thereafter, the program policy office of Incident Management and Preparedness, CG-533, led the process to revise Commandant Instruction 16465.1A: Spills of National Significance (SONS) Response Management System which defined catastrophic oil spill response roles, responsibilities and process. The SONS 2010 exercise was the first SONS exercise to follow the DHS Homeland Security Exercise and Evaluation Program (HSEEP) exercise design and planning framework, rather than the national Preparedness for Response Exercise Program (PREP) which was developed following OPA90. HSEEP involves the full range of US government interagency relationships in the exercise concept, objectives, date, location, and play; PREP involves those entities identified in the NCP and OPA 90 with oil spill-related responsibilities.

The policy revisions above addressed numerous issues such as the roles of the National Incident Commander (NIC), interaction with a PFO, and usage of the Unified Incident Area

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Command (UAC) concept. In particular, the NIC concept, an artifact of the NCP, was recast to account for post September 11<sup>th</sup> and post Katrina lessons learned (NCP 1990). The timing of the SONS 2010 exercise and lessons implemented would prove critical to Coast Guard Deepwater Horizon response early on. SONS 2010 exercise design and play, connections created via the HSEEP process, and concepts tested there enabled a rapid stand up the NIC and UAC as the Deepwater Horizon spill unfolded.

1. LAW, REGULATION, AND POLICY CHALLENGES (LRP) WITHIN THE SPILL OF NATIONAL SIGNIFICANCE (SONS) PROGRAM

The Coast Guard successfully used and adapted NIMS concepts, and improved NCP constructs during the DWH response. The review for this papers revealed that the number of LRP observations comprised the largest percentage of needed changes. 29% of the observations related to LRP and approximately 21% suggested gaps in organizational constructs deriving from legal requirements. Homeland Security Presidential Directive (HSPD) 5 directs federal agencies to adopt NIMS, a requirement the Coast Guard took to heart in the run up to 2010. Coast Guard efforts included use of the UAC and NIC concepts, the naming of a Spill of National Significance (SONS) to implement a “whole of society” response. While policy improvements worked well at the time, further improvements are needed to yield better results in public confidence.

Automatic triggers are needed to enhance authorities, allow for national flows of resources, and make larger amounts of funding available for immediate use. These actions are critical for future success (Presidential Commission, 2011). Additionally, SONS designation authority should be delegated below the cabinet level. In 2010 it took nearly two weeks for the DWH oil spill to be designated a SONS. This delay quickly became a source of criticism. There

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were also significant challenges moving oil spill resources nationwide, and from other countries, to the spill location. The NIC lacks authority to override Vessel Response Plan (VRP) response resource requirements under OPA 90 to quickly fill critical SONS resource requests. VRP resources comply with standing federal and state requirements and often carry heavy penalties for plan holders if violated. NIC authorities are needed to break these “holds” for critical resources. Federal law, 33 USC § 1321(c)(1)(B), a Presidential authority, does not specifically authorize movement of resources. The Coast Guard message, ALCOAST 248/10, removed federal “holds” on equipment for the DWH oil spill, however, revised federal statutes are needed to allow the NIC to rapidly move critical resources during a SONS.

Funding challenges identified in the NIC report also need to be addressed. That report noted, “To ensure funding remained available for the federal response, Congress passed Public Law 111-191 which allowed for unlimited advancements of up to \$100 million from the principal to the emergency fund, but only for the Deepwater Horizon response. [...] Accordingly, the changes made by Public Law 111-191 should be made permanent.” Moving forward, ensuring adequate funds will be consistently available is crucial. This will be especially true for a RP which lacks financial depth to continue response operations if they exceed their limits of liability.

Finally, a SONS designation needs to incorporate authorities to stand up an incident-specific NRT planning and policy team. During DWH, the Inter-agency Solutions group (IASG) acted as an incident-specific surrogate to the NRT (NIC, 2010). The concept for the IASG was proposed by EPA staff and discussed during the SONS 2010 exercise. The IASG’s incident-specific support of the NRT and functional effectiveness should be institutionalized and directly tied to the SONS designation. Table 3 summarizes suggested SONS improvements:



**Table 3. Recommended Automatic Actions Associated with SONS Designation**

<i>Action</i>	<b>Result</b>	<b>Impact</b>
<i>Enhance Authorities</i>	Immediate Flag/SES designation as FOSC	Executive leadership and expertise applied quicker
<i>Enhance Resource Availability</i>	National sources immediately available	Key resources secured more quickly
<i>Enhance Funding Sources</i>	Increase OSLTF ceilings	No delays in federal support
<i>NRT Staffing Requirements executed</i>	Decision cycles quicken	Faster recommendation / resolution of issues

## 2. EXECUTIVE LEADERSHIP AND TRAINING

Issues related to incident management and organization improvements comprised 21% of the findings. Within that subset, surprisingly, little focus was on leadership or leadership competencies of the Incident Commander (IC), NIC, PFO, or FOSC. This absence in findings, in contrast to the long-standing practice of political leaders to critique technical aspects of the response, represents a gap in addressing problems associated with the higher levels of scrutiny upon incident leaders' efforts (IOSC Report IOSC-001, 1993).

High stakes, high stress crisis events require designation of a leader with the authorities and abilities needed to manage that event successfully. This executive level is a brutal “no man’s land” where management efforts have fallen short in a growing list of national emergencies such as Hurricane Sandy, the Boston Bombing, the Ebola public health scare and the continuing crisis in illegal immigration along the US southern border. Incident leaders must establish the organizational framework, spark collaborative action, and perform complex functions that achieve results (NPLI, 2016). The crisis leader must optimize the tactical response, facilitate a shared strategic vision, connect with communities and embody trust among those affected amidst what has become a normal storm of criticism from multiple sources, including those who benefit from conflict.

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Leadership development for high stakes, high stress situations is not typically given priority within the Coast Guard. Consider a key finding from the Incident Specific Preparedness Review (ISPR) for Deepwater Horizon:

*“Coast Guard District and Sector Commanders have many [...] responsibilities, including crisis management [...] However, officers assigned to these positions are seldom selected for their crisis management skills. Further, the opportunities to train in crisis management or to hone leadership skills are limited [...] and not necessarily a planned progression to achieve competence in the discipline.”*

The challenge for the FOOSC in a major waterborne oil spill that impacts a multi-state area or region is the need to work with the RP to “...build a multi-million dollar fortune 500 company overnight with partners that do not want to be in business together.” Achieving proficiency in this takes time and talent and severely challenges individuals that haven’t been consistently and regularly trained in preparation for such situations.

During the SONS 2010 exercise a pre-exercise seminar was held to familiarize Coast Guard senior leaders with concepts related to the revision in the SONS policy and how that related to the NRF. Exercises of this nature need to continue in the future to enable both a forum for current executives to demonstrate their proficiency while also informing the broader interagency. The context for incident response is highly complex and seminars alone can’t close this gap between training and developing capability and experience. For DWH, the NIC role could be described as the principle federal lead for all strategic matters associated with the spill. Findings in the Katrina report emphasized the need to enhance the role of the PFO whereas the Hurricane Sandy report concluded the Federal Coordinating Officer (FCO) role had been placed under an “Area Coordinator” filled by the Deputy Regional Administrator. Further, in the early days of DWH, the FOOSC authorities were quickly delegated to the Eighth Coast Guard District Commander in New Orleans. This action originated from recommendations and lessons learned from the SONS 2010 exercise (White House timeline, 2010).

**Designation of the Leader: NRF vs. NCP**

While findings support the clear need to designate, for a catastrophic incident, a single federal-level leader, and the NRF relies on incident leadership at the local level. There is little literature that consistently provides “how to” on crisis leadership training (NIC, 2011, DWH ISPR). Current training programs focus on specialties and professional qualifications; NIMS training largely follows a model developed in the 70’s. The authors observe that training should focus in two general areas: 1) Incident Leadership during operational responses and 2) crisis communication and conflict resolution skill for dealing with internal and external, command structures. Incident leaders must address with credibility the concerns and questions of national, state, and local leaders, the media, as well as with stakeholders having shared or conflicting objectives.

**3. INFORMATION MANAGEMENT**

Information management challenges affect all of the leadership areas discussed in this paper, and must be pre-planned to transparently address the rapid spread of news via traditional and social media. Our review found that over 20% of the findings relate to this area; 14% of the observations related to Information Management and approximately 8% identified gaps in Public Communication. The question is how to better prepare for the rapid, increasing information demand that quickly arises during a crisis. Even when well thought-out plans have been vetted and are in place, effective information management is difficult for emergency managers and incident management personnel to achieve. For example, the city of Boston pre-plans for the Marathon annually, incorporating improvements over time and building a framework to tie the variety of agencies and organizations together. During the aftermath of the April 15<sup>th</sup> 2013 Boston Marathon bombing, officials quickly adapted to vet the significant volume of social

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media on twitter and Facebook, yet still struggled to dispel rumors and push accurate information to all stakeholders and the media (Starbird et al., 2014). The challenge is to integrate internal and external reporting structures of agencies and companies quickly bound together in matrixed problem solving organizations.

For DWH, impromptu structures were put into place to close gaps and meet the complex demands for accurate and timely information. The IASG was chartered as a way to deal with the numerous, complex issues surrounding the DWH response (Macon, 2011). The NIC, supported by the NRT and the IASG, worked on products to inform stakeholders, citizens, and the media on many topics such as the flow rate, the fate of the oil, and the use of dispersants in a submerged environment, as well as many other technical topics. Table 4 proposes a construct for developing information management procedures in a standing plan. This construct could support international and private sector planning as well. The general outline, developed from multiple sources, was used to guide Coast Guard efforts as recently as the 2017 Presidential Inauguration, specifically for critical information management.

**Table 4. Proposed Standing Information Management Plan outline**

<i>Internal or External Focus</i>	<i>Section</i>	<i>Impact</i>
<i>Both</i>	Intent, Scope, Staffing	Aligns tasking and matches resources to requirements
<i>External</i>	Management Roles, responsibilities, products	Matches resources and defines deliverables
<i>Internal</i>	Battle rhythm, process, accept forms, critical info.	Defines sources of info and timetables, eliminates redundancy
<i>Both</i>	Decisions support systems, Social media, storage and web policies	Record retention, disposal, process, and support

## 4. STAKEHOLDER ENGAGEMENT AND COMMUNICATIONS

The reviewed reports address the complexity in communicating with local citizens comprised 8% of the recommendations whereas stakeholder support and human health and safety together comprise 24%. Questions, concerns, and risk perceptions from those affected by an incident or oil spill can dominate the attention of incident leaders. Addressing those concerns requires adaptation of NIMS concepts beyond their operational focus to collaborate horizontally outside the incident management organization (Walker 2017). Consider again the facts surrounding the 2008 Cosco Busan spill in San Francisco Bay. The initial response was executed successfully and quickly in accordance within policy and planning guidelines, recovering a great deal more spilled oil early on than other previous responses. Nevertheless, those outside the response did not view the response as successful, providing evidence of inadequate engagement, information management, public messaging (Cosco Busan ISPR, 2008). These weaknesses damaged public trust and failed to address the risk perceptions, concerns, and questions of affected stakeholders and the public at large. This gap with the human dimensions of oil spills is an underlying flaw in the OPA90 and NCP.

Consensus building in a democracy, where so many outside the response have a public voice through traditional and social media, is hard: it is difficult to align what is possible with what people want. This disconnect can result in failure to achieve a successful response. Further, the involvement of and public commentary by elected and senior agency officials requires the incident management team to feed the insatiable appetite for information while implementing effective operations to respond and mitigate impacts. Misperceptions and unrealistic expectations, while challenging, must be taken seriously and proactively managed. This is not a new problem or challenge, but incident procedures must be adapted to find new ways to effectively share

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accurate, current information about the situation in relation to a wide variety of risk perceptions real time, given the 24 hour news cycle and the emergence of social media. The authors suggest that oil spill stakeholder engagement is a starting point, where trusted relationships developed pre-spill are activated, leveraged and sustained during response (Walker 2017).

Recent changes to the Coast Guard's Incident Management Handbook (2014) include options for internal collaboration among technical specialists in the Environmental Unit and Command Staff to address public questions, concerns, and risk perceptions about the response situation and potential impacts. Human health concerns, i.e., the public rather than workers, can be addressed through the new Assistant Safety Officer for Public Health, a position which could be filled by a State Department of Health representative or at the federal level, the Centers for Disease Control. These responsibilities involving internal and external collaboration should be added to contingency plans and exercised during preparedness. The NCP requires that FOSCs develop Area Contingency Plans (ACPs) for their respective port areas. FOSCs should adapt approaches to connect environmental concerns with public health agencies to broaden interactions at the state and local levels. Currently most states have separate agencies for public health, the environment, and emergency management. Integrating these agencies missions at local level in ACPs would strengthen the information management and stakeholder engagement resources available in oil spill planning and response, while also adapting the NCP to align with the NRF.

These examples provide approaches to integrate the information demanded to inform the public and stakeholders with the assistance of experts who can speak with credibility. Adopting a more "citizen focused" approach not only improves the planning required by the NCP it also adapts the NCP to NRF constructs which are built around a local, community-based focus.

## CONCLUSIONS

Today's society is complex, information spreads rapidly, responsible agencies and parties must not hesitate in stepping forward to take responsibility, act quickly, engage appropriately and communicate clearly with the full range stakeholders. The authors contend these considerations and improvements represent a call for action. It's very hard to muster political energy around legal, regulatory and policy improvements as crisis incidents and events move recede in the rear view mirror. But the next catastrophe is just around the corner, and so mitigating these challenges now is critical. It's better to catch a rising tide than to crash on the rocks as the next incident propels unprepared leaders into the national limelight and onto the world stage.

From their review, the authors identified observations in post-incident reports calling for wholesale changes to either the NRF or the NCP. Our proposed changes focused on key drivers to further enable practical "whole of government" and "whole of society" improvements that move NCP responses closer to the intent of HSPD-5 and the NRF. The authors believe the key areas discussed above will reduce the likelihood of emergency response and preparedness efforts being undermined or disaggregated by a distracted bureaucracy (Lindsey, 2008). More often than not efforts to undertake mundane and frustrating staff work are overcome by the urgent tyranny of real-time response. Government agencies in the US and abroad would benefit to mitigate the downside effects of outdated policies that no longer meet current public expectations of response. That's why an adaptive strategy to update laws, regulations, and policies is critical for future success. Further, incident commanders need to develop the skills to build and sustain trust with citizens under their care through effective information management and timely engagement, especially with community organization networks. During response, the credibility

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of incident managers is in the spot light for all to judge; these recommendations are intended to resolve some key problems that invariably arise. These are the challenges we believe can be improved from this effort. Our specific recommendations include:

1. Law, Regulations, and Policy – Policy makers in DHS should modify the NCP as summarized in Table 3 above which summarizes the automatic actions that should be associated with a SONS designation. Such changes will improve the Coast Guard’s ability to rapidly organize for a future SONS and further align the NCP with NRF concepts.
2. Executive Leadership and Training
  - Response executives in all Federal agencies should participate in full-scale Exercises, similar to SONS 2010, and as required by HSPD 5 and HSEEP.
  - Institutionalize training requirements and programs to develop skills to act as the “visible Federal lead” for a catastrophic incident.
  - Clear, visible, and aggressive executive leadership must occur early for rapidly growing, complex incidents.
  - International partners, agencies, and private industry need to adopt training programs that build competencies in crisis communication, conflict resolution, and negotiation.
3. Information Management
  - Public expectations and awareness of the NCP should be managed through engagement during preparedness activities to inform realistic expectations; include departments of health to address human health risk perceptions, concerns and questions.



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- The IASG's support to the NRT and functional effectiveness needs to be institutionalized and directly tied to a SONS designation.
4. Stakeholder Engagement and Communications
- Public and government officials are expected, regardless of the complexity of a given response, to clearly communicate with real time accuracy on a 24/7 basis.
  - Crisis Communications training, the use of specialized experts and a significant amount of experience dealing with a broad range of stakeholders is critical.
  - Technical specialists within the incident management organization should collaborate internally to identify and address stakeholder questions and concerns by developing talking points for the JIC in each operational period if needed, particularly around complex and/or controversial issues.

This paper and any attachments contain the opinions of the authors. The information contained in this paper is intended solely for the use of the entities to which the paper is addressed. The opinions are not official policy, or official interpretations of policy, but rather statements intended to garner discussion, improvements, open dialogue and innovation.

REFERENCES

1. DHS Reform and Improvement Act of 2016, H.R. 638, 114<sup>th</sup> Congress. (2016).
2. Fearn-Banks, K, 1996. Crisis Communications: a casebook approach, University of Washington, Lawrence Erlbaum Associates, Mahwah, New Jersey.
3. Federal Emergency Management Agency (FEMA), 2016. National Response Framework. Dept. of Homeland Security (DHS). Third Edition. Washington, DC, USA.

International Oil Spill Conference

4. Homeland Presidential Security Directive 5. Directive on Management of Domestic Incidents, February 28, 2003. [United States. Office of the Federal Register](#) Weekly Compilation of Presidential Documents (March 10, 2003), v.39 n.10, p.280-285.
5. Kuchin, J.T. and L.L. Hereth. 1999. Measuring Response: A Balanced Response Scorecard for Evaluating Success. 1999 International Oil Spill Conference Proceedings. American Petroleum Institute (API). Washington, DC.
6. Lindsay, B.R., 2008. The National Response Framework: Overview and Possible Issues for Congress 20Nov08 report # RL347 and Docket ID # EPA-HQ-OPA-2006-0090
7. Macon, R, and B.T. Velde. 2011. The Interagency Solutions Group: Providing a “Whole of Government” Approach to the Deepwater Horizon Response. In: International Oil Spill Conference Proceedings: March 2011, Vol. 2011, No. 1.
8. National Commission on Terrorist Attacks. 2004. The 9/11 Commission Report: Final Report of the Commission on Terrorist Attacks upon the United States. New York: W.W. Norton & Company, page 435
9. National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling. 2011. Deep Water: The Gulf Oil Spill Disaster and the Future of Offshore Drilling Recommendations. Washington, D.C., page 283.
10. National Preparedness Leadership Initiative (NPLI). 2010. Meta-Leadership: Preliminary Leadership Lessons from the Response to the 2010 Deepwater Horizon Oil Spill. NPLI 2010. Available online: <http://npli.sph.harvard.edu/wp-content/uploads/sites/8/2013/04/Lessons-from-2010-Deep-Water-Horizon-Response-fmtd.pdf> (accessed on 29 Dec 2015).
11. National Response Team (NRT). 2013. NRT Joint Information Center Model Collaborative Communications during Emergency Response.

International Oil Spill Conference

12. Ott, G.L., D.C. Haynes, R.G. Pond. 1999. Considering “Best Response” capabilities in Area Contingency Plans. In: International Oil Spill Conference Proceedings. API: 1999.
13. Ott, G.L., D.C. Haynes. 2001. AREA CONTINGENCY PLAN SCORECARD: DETERMINING A PLAN'S ABILITY TO ACHIEVE "CRITICAL SUCCESS FACTORS" In: International Oil Spill Proceedings: 2001.
14. Public Law 101-380, August 18, 1990 as amended by PL 102-239, October 6, 1992. (H.R. 1465-42,) Oil Pollution Act of 1990, Sec 4202 (7) para 5.3.5.
15. Starbird, K., Maddock, J., Orand, M., Achterman, P., & Mason, R. M. (2014). Rumors, False Flags, and Digital Vigilantes: Misinformation on Twitter after the 2013 Boston Marathon Bombing. In IOSC Conference 2014 Proceedings (p. 654 - 662). doi:10.9776/14308
16. Townsend, Frances Fragos. 2006. The Federal Response to Hurricane Katrina: Lessons Learned, Report to the President. Appendix A, Recommendation 1 & 2, pages 88-89. Washington, DC.
17. U.S. Coast Guard, 2008, Incident Specific Preparedness Review (ISPR) M/V Cosco Busan Oil Spill in San Francisco Bay, Initial Response Phase, 11 January 2008, pg 4.
18. U.S. Coast Guard, 2010, National Incident Commander’s (NIC) Report: MC252 Deepwater Horizon, 01 October 2010, page 5
19. U.S. Coast Guard, 2011, Final Action Memo - Incident Specific Preparedness Review (ISPR) Deepwater Horizon Oil Spill, 18 March 2011. pages 87-89.

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20. White House Deepwater Horizon timeline, 2010. See:  
<https://www.whitehouse.gov/blog/2010/05/05/ongoing-administration-wide-response-deepwater-bp-oil-spill> (last accessed 12.06.16)
21. U.S. Coast Guard, 2011, Final Action Memo - Incident Specific Preparedness Review (ISPR) Deepwater Horizon Oil Spill, 18 March 2011. Pages 87-89.
22. U.S. Coast Guard. 2014. Incident Management Handbook. Dept. of Homeland Security. ISBN 9780160925092
23. U.S. Environmental Protection Agency (EPA). 1994. 40 CFR Part 300. US National Oil and Hazardous Substances Pollution Contingency Plan (NCP). Available at <http://www.gpo.gov/fdsys/pkg/CFR-2011-title40-vol28/pdf/CFR-2011-title40-vol28-chapI-subchapJ.pdf>
24. Walker, A.H., R.G. Pond. 1994. Implementing an Effective Response Management System. In: IOSC Technical Report IOSC-001: December 1994.
25. Walker, A.H. 2017 (in press). Strengthening Preparedness and Response Decision-Making at the Local Level: Adaptations to Manage Better and Suffer Less. In: International Oil Spill Proceedings 2017.