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14. ABSTRACT <u>Military Humanitarian Assistance and Disaster Relief (HA/DR) operations over the past 7 years produced common learned lessons. After action reports, studies, and independent articles from the Indonesian tsunami in 2004, Hurricane Katrina in 2005, and the Haitian earthquake in 2010 revealed several commonalities among all the lessons learned. Challenges in communication and interagency coordination were among the greatest of these lessons learned. It is not enough to simply produce these lessons in any military operation, and there is a tendency in the U.S. military to relearn lessons from the past. It is also essential for Joint Force Commanders to apply what is learned from past HA/DR operations and implement improved plans to correct these deficiencies in order to successfully minimize human suffering and loss of life. This paper analyzes U.S. military lessons learned from Operation Unified Assistance (Indonesian tsunami), Operation Unison (Hurricane Katrina), and Operation Unified Response (Haitian earthquake) and provides recommendations to Joint Force Commanders to mitigate the negative outcomes during future HA/DR operations.</u>					
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**NAVAL WAR COLLEGE
Newport, R.I.**

HA/DR Lessons Learned

by

Mitchell T. Koch

LCDR USN

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

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Abstract

Military Humanitarian Assistance and Disaster Relief (HA/DR) operations over the past 7 years produced common learned lessons. After action reports, studies, and independent articles from the Indonesian tsunami in 2004, Hurricane Katrina in 2005, and the Haitian earthquake in 2010 revealed several commonalities among all the lessons learned. Challenges in communication and interagency coordination were among the greatest of these lessons learned. It is not enough to simply produce these lessons in any military operation, and there is a tendency in the U.S. military to relearn lessons from the past. It is also essential for Joint Force Commanders to apply what is learned from past HA/DR operations and implement improved plans to correct these deficiencies in order to successfully minimize human suffering and loss of life. This paper analyzes U.S. military lessons learned from Operation Unified Assistance (Indonesian tsunami), Operation Unison (Hurricane Katrina), and Operation Unified Response (Haitian earthquake) and provides recommendations to Joint Force Commanders to mitigate the negative outcomes during future HA/DR operations.

Introduction

On December 26th, 2004, an earthquake with a magnitude of 9.0 on the Richter scale occurred 100 miles off the northern coast of Sumatra in the Indian Ocean. The resulting tsunami affected 11 countries from Thailand to Africa and caused a death toll near 300,000. Immediately after the massive waves hit land and receded, human corpses littered the impacted area and began to rot in the tropical heat further contaminating food and water sources.¹

On August 29th, 2005, the third largest hurricane to make landfall in the United States affected 90,000 square miles along the Gulf Coast. Hurricane Katrina hit land as a Category 4 hurricane, produced a storm surge of 20 to 30 feet, and submerged 80% of New Orleans under water. Over one million residents in the region were displaced and the death toll due to the storm was approximated at 1,836.²

On January 12th, 2010, an earthquake with a magnitude of 7.0 hit Haiti causing death and destruction throughout the country and, in particular, the capital city of Port-au-Prince. The final death toll reached over 210,000 and over 1 million residents were displaced.³

In each of these three disasters, the U.S. military executed relief operations, such as Humanitarian Assistance and Disaster Relief (HA/DR) and Defense Support to Civil Authorities (DSCA) to the affected areas. Although the military is not specifically designed to execute these operations, it readily provides unique capabilities (e.g. expeditionary characteristics) that enhance the efforts of Other Government Agencies (OGA),

¹ National Geographic News, "The Deadliest Tsunami in History?," http://news.nationalgeographic.com/news/2004/12/1227_041226_tsunami.html (accessed 27 March 2011).

² "11 Facts about Hurricane Katrina," <http://www.dosomething.org/tipsandtools/11-facts-about-hurricane-katrina> (accessed 27 March 2011).

³ Amnesty International, "Document – Haiti Earthquake Facts and Figures," www.amnesty.org (accessed 27 March 2011).

Intergovernment Organizations (IGO), and Non-government Organizations (NGO) during times when disaster strikes. *A Cooperative Strategy for 21st Century Seapower* includes HA/DR as one of the six sea services' core capabilities that aim to relieve **distress and** human suffering of citizens and others when their safety is jeopardized.⁴

As in the aforementioned three operations (Operation Unified Assistance, Operation Unison, and Operation Unified Response), the U.S. military is often among the first of responders to an affected region after a disaster. As such, Combatant Command Commanders (CCDR) are responsible for initiating and executing HA/DR operations. Unlike conventional military operations, CCDRs often receive little or no warning before executing HA/DR operations. HA/DR operations also differ from conventional operations because the military frequently acts in a supporting role for partner nations, OGAs, NGOs, and IGOs. It is, therefore, essential for military personnel to effectively communicate and seamlessly coordinate efforts to the supported nations, its leaders, and affiliated agencies.

After action reports, studies, and independent articles from HA/DR operations over the last 7 years, revealed common difficulties that hampered the military's efforts during these operations. While the details of the individual events vary, Joint Force Commanders (JFC) will likely encounter particular challenges in terms of communications and interagency coordination during future HA/DR operations. As a result, in order to achieve the commander's intent, JFCs need a sound understanding of lessons learned, plan to reduce the negative implications of these lessons, and plan for the future operations in order to mitigate human suffering when they are called on to provide HA/DR.

⁴ U.S. Department of Defense, *A Cooperative Strategy for 21st Century Seapower* (Washington DC: Pentagon, October 2007), 11.

Communications

Effective communications are critical in any military operation because they allow for the free flow of information and enhance situational awareness for commanders to make decisions. Specific to HA/DR, “effective communications systems are vital to planning, conducting, and sustaining successful Foreign Humanitarian Assistance (FHA).”⁵ Furthermore, “communications are the central system that not only tie together all aspects of joint operations, but also allow CDRs command and control (C2) of forces.”⁶ JFCs experienced problems with communications during Operations Unified Assistance, Unison, and Unified Response, which illustrate the important role these systems have on HA/DR operations.

Communication – Operation Unified Assistance

On December 28th, 2004, two days after the 2004 tsunami struck Indonesia, a Joint Task Force (JTF) was formed, later renamed Combined Support Force (CSF) 536. With LtGen Robert Blackman as the JFC, he elected two subordinate commanders, BGen Panter and BGen Cowdrey, to head Combined Support Groups (CSG) in Sri Lanka and Indonesia respectively. On December 29th and 30th, Disaster Relief Assessment Teams (DRATs) arrived in Thailand, Sri Lanka, and Indonesia. The mission of the CSF-536 and Operation Unified Assistance was to “provide assistance to the governments of Indonesia, Sri Lanka, Thailand, and other affected nations to mitigate the effects of the recent earthquake and tsunami” and conduct operations in support of the United States Government (USG) in

⁵ U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Publication 3-29: Foreign Humanitarian Assistance* (Washington, DC: CJCS, 17 March 2009), IV-4.

⁶ Ibid.

conjunction with partner nations, NGOs, and IGOs.⁷ Generally, the U.S. military brings robust communication capabilities to any operation. This is particularly vital during a HA/DR operation because the local communication infrastructure is often destroyed (i.e. destroyed telephone lines, cellular phone towers, inability to broadcast or access information via television and radio as well as limited broadband accessibility). In the aftermath of the Indonesian tsunami, this was certainly the case.⁸ Operation Unified Assistance highlighted the imperative for leaders, both military and civilian, to communicate effectively among each other.

Many supporting NGOs, IGOs, and partner nations use the unclassified Internet to communicate during crises such as this. Unfortunately, aircraft carriers from the U.S. military do not necessarily have the bandwidth to handle the tremendous communication requirement over the unclassified Internet. When Carrier Strike Group 9, whose flagship was the USS Abraham Lincoln, arrived on January 1st, 2010, it brought its robust but classified Internet network, the Secret Internet Protocol Router Network (SIPRNET).⁹ SIPRNET provided adequate communication among U.S. military leaders but no opportunity for Internet communication among other supporting agencies. LtGen Blackman attempted to enhance communication capabilities during Operation Unified Assistance by establishing an unclassified Internet, Non-secure Internet Protocol Router Network (NIPRNET). LtGen Blackman stressed that “reliable communications was key to the success of the operation” and therefore chose the NIPRNET as the primary means to communicate.¹⁰ However, this

⁷ Paul E. Lefebvre, “Operation Unified Assistance,” Powerpoint, 10 June 2005.

⁸ Reiner Huber et al., *The Indian Ocean Tsunami - A Case Study Investigation by NATO RTO SAS-065*, 24 March 2008, www.web.mit.edu (accessed 20 March 2011), 7.

⁹ Bruce A. Elleman, “The U.S. Navy’s Response to the Tsunami in Northern Indonesia” in *Waves of Hope*, Newport Papers no. 28 (Naval Station Newport, RI: Center for Naval Warfare Studies, Naval War College, February 2007), 69.

¹⁰ Ibid.

required building NIPRNET capacity from scratch in the Joint Operation Center (JOC), or headquarters, in Utapo, Thailand. CSG-9's overreliance on SIPRNET usage and the JOC's usage of NIPRNET created several gaps in communication.¹¹ Although the concept was sound, LtGen Blackman's efforts to minimize communication errors failed during the operation due to the inherent lack of interoperability between CSG-9 and JOC personnel.

On a larger scale, there were also communication lapses among different nations participating in the operation. Pacific Command (PACOM) uses Asia Pacific Area Network (APAN) whose mission was "to share unclassified information electronically in order to facilitate regional understanding, build confidence among Asia-Pacific neighbors and enhance security cooperation."¹² Unfortunately, the U.S. did not utilize the system as extensively as many of her allies participating in the operation.¹³ In this case, the U.S. did not use the communication tools it possessed to enable the free-flow of information needed during an HA/DR mission.

Finally, land-based mobile communications were also a concern. When units arrived ashore to assess the situation, they relied heavily on satellite communications. However, not enough communication equipment was available for personnel. "Thirty pieces of communications equipment and thirty Marines of the 7th Communications Battalion, III Marine Expeditionary Force Headquarters Group" arrived by sea 10 days after CSF-536 stood up and left two weeks later.¹⁴ As a result, many of the people in the field did not have the necessary communication equipment to execute the mission.

¹¹ Ibid., 77.

¹² Ibid., 73.

¹³ Ibid.

¹⁴ Ibid., 75.

Although CSF-536 had robust communications capabilities, a lack of coordination among these capabilities hindered communications within the operation. Operation Unified Assistance highlighted the need to provide and use a widely accessible and common communication structure. Forces involved in the operation used separate communications systems, such as APAN, unclassified NIPRNET, and SIPRNET that degraded the overall unity of effort.

Communication – Operation Unison

On August 30th, 2005, one day after Hurricane Katrina made landfall, U.S. Northern Command (NORTHCOM) stood up JTF-Katrina led by LtGen Russell L. Honore, 1st U.S. Army Commander. “In [all], the Department of Defense (DOD) [provided] 49,200 National Guard members, 17,417 active duty personnel, 20 ships, 360 helicopters, and 93 fixed-wing aircraft [to] the area of operations by September 7th.”¹⁵ Similar to the tsunami in Indonesia, the local communications infrastructure, including telephone lines and cellular phone towers, along the Gulf Coast was nearly destroyed. This immediately created challenges for JTF-Katrina and its leadership.

In addition to the destruction of local communications infrastructure, JTF-Katrina encountered communication equipment shortages and variability in equipment resulting in interoperability problems with other military units. Specifically, active duty units utilized their Single Channel Ground and Airborne Radio System (SINCGARS) radios, which were not issued to National Guard units or used by civilian responders.¹⁶ Naturally, this created

¹⁵ Buddelmeyer, Kevin L., “Military First Response: Lessons Learned From Hurricane Katrina” (research report no. 6460/2007-04, Maxwell AFB, AL: Air Command and Staff College, April 2007), 11. quoted in United States Northern Command, “U.S. Northern Command Support to Hurricane Katrina Disaster Relief,” <http://www.northcom.mil/pdfs/303C9335-D38A-7DBA-4DF6EE51466C94BF.pdf> (page no longer exists).

¹⁶ Les Melnyk, “Katrina Lessons Learned,” *Soldiers* 61, no. 6 (June 2006): 30.

gaps in communication since SINCGARS radios are not compatible with other field issued communication devices. The Guard attempted to overcome this shortfall through the use of Civil Support Teams (CSTs) that “can connect military and civilian radio networks and provide voice, data Internet, and video uplinks.”¹⁷ However, due to the widespread devastation of Hurricane Katrina, the Guard lacked the number of CSTs to effectively utilize the needed communication capability creating gaps in communications. In the end, the lack of communication equipment and interoperability reduced the commander’s situational awareness leading to duplication of efforts, conflicting information, and slowed decision-making.¹⁸

The next issue JTF-Katrina encountered related to the management of the flow of information. By mismanaging information, the ability to gain a common operating picture was further reduced, which hampered the ability of decision makers to form accurate and timely decisions. For example, the Air Force utilized intelligence, surveillance, and reconnaissance (ISR) assets throughout the operation. These assets included U-2, C-130, RC-26, and OC-135 platforms containing Remotely Operated Video Enhanced Receiver (ROVER) capability.¹⁹ ROVER technology allows for the transfer of video imagery from airborne platforms to ground-based units. However, in the case of Operation Unison, “the vast majority of the imagery and information was fed directly to the NORTHCOM Joint Forces Air Component Commander (JFACC) for command situational awareness, not on-scene providers.”²⁰ Delivering imagery feed to the command headquarters resulted in delays in decision-making by forces in the field. Coupled with existing communication issues

¹⁷ Ibid., 30.

¹⁸ Ibid., 31.

¹⁹ Buddelmeyer, 4.

²⁰ Ibid., quoted in AF/A9 Lessons Learned, *Katrina/Rita by the Numbers: Air Force Support to Hurricane Katrina/Rita Relief Operations*, staff study, 2006.

above, the time to complete the OODA (Observe, Orient, Decide, Assess) loop became excessively long.

The communication issues experienced during Operation Unison were captured by Paul McHale, the former Assistant Secretary of Defense for Homeland Defense. The DOD needs to “improve [the] ability to obtain timely and accurate assessments of damaged areas immediately after an event” and “enhance [the] ability to communicate with first responders on the ground, focusing specifically on voice communications.”²¹ Failing to focus on communication capabilities during a HA/DR operation inhibits the military and civilian agencies to successfully accomplish the mission.

Communication – Operation Unified Response

Following the earthquake near Port-au-Prince, Haiti, JTF-Haiti was created under LtGen Ken Keen, Deputy Commander U.S. Southern Command (SOUTHCOM). As a supporting agency for the lead federal agency U.S. Agency for International Development (USAID), JTF-Haiti began to deploy Navy ships, *USS Carl Vinson*, *USS Batan*, *USS Nasau*, *USS Carter Hall* to Haiti in support of relief operations in order to “mitigate suffering and save lives.”²² Similar to the previous HA/DR operations, JTF-Haiti encountered similar communications problems.

Communications have a profound impact on building situational awareness, particular in the beginning stages of HA/DR. Situational awareness was lacking during Operation Unified Response due to communication difficulties. Similar to Operation Unified Assistance, the U.S. military focused communication efforts on using the familiar SIPRNET

²¹ House Committee on Armed Services and Homeland Security, *Statement of Paul McHale, Assistant Secretary of Defense for Homeland Defense*, 109th Cong., 1st sess., 9 November 2005, 11-12.

²² U.S. Southern Command, “Narrative History of Operation Unified Response,” <http://www.southcom.mil/appssc/factFilesLarge.php?id=138> (accessed 9 April 2011).

capability already established within its communication structure. Again, using SIPRNET essentially precludes civilian responders from possessing information.²³ For HA/DR operations, “military elements must learn to forget the SIPRNET completely; basically, you have to be prepared to use the [unclassified] Internet almost exclusively to gain and then share situational awareness.”²⁴ In the case of Operation Unified Response, the military hampered unity of effort by initially operating on the SIPRNET.

Furthermore, text messages from Blackberry devices were the primary mode of communication between U.S. Government Agencies (USGA) and NGOs.²⁵ During the initial days of disaster relief operation, “the ability to pass timely and accurate information was arguably as important as the availability of food and water.”²⁶ As a supporting agency, military communication means need to be aligned with civilian agencies, particularly in the beginning stages of disaster relief so every agency can gain the same amount of situational awareness and gain a common operating picture, which is severely needed to make accurate decisions.

Communication during Operation Unified Response was also hampered by JTF- Haiti’s C2 structure. The C2 structure was set up for traditional military operations without including the unique aspects of C2 inherent in HA/DR operations.²⁷ Specifically, “the command’s organizational structure was organized into mission and functional directorates,

²³ Peacekeeping & Stability Operations Institute (PKSOI), *Observations & Recommendations Concerning HA/DR Operations Conducted in Haiti January – March 2010*, SOLLIMS Report, (Carlisle Barracks, PA: US Army War College, 08 April 2008), 1.

²⁴ Ibid.

²⁵ Kelly L. Webster, “Lessons From a Military Humanitarian in Port-au-Prince, Haiti,” *Small Wars Journal*, 2010, www.smallwarsjournal.com (accessed 22 March 2011), 2.

²⁶ Ibid., 1-2.

²⁷ U.S. Office of the Chairman of the Joint Chiefs of Staff, II-3.

while its components were organized in traditional joint staff directorate structures.”²⁸ This created a confusing organization that hurt the military’s unity of effort with other agencies.

Furthermore, even if JTF-Haiti had integrated civilian agencies into its C2 structure, they would have likely run into other communication issues. For example, when NGOs and IGOs deploy to a region, they do not bring large amounts of communication equipment and the equipment they do bring will likely not be compatible with the military’s equipment.²⁹

Therefore, it is important for JFCs to be cognizant of their C2 structure as well as the communication capabilities civilian agencies bring to an HA/DR operation.

Communication lessons learned during Operation Unified Response highlighted the need for interoperability with civilian agencies and the creation of a C2 structure that effectively integrates non-military personnel. Accomplishing these tasks should assist in the creation of a common operating picture and increase situational awareness for all agencies involved in HA/DR operations.

Interagency Cooperation

Interagency/NGO/IGO cooperation is crucial to the success of an HA/DR operation. “Interagency cooperation, coordination, and connectivity at all levels will better enable key organizations to orchestrate the total FHA effort.”³⁰ As stated earlier, the DOD supports OGAs and NGOs during HA/DR operations. Therefore, it is necessary for JTF commanders and their staffs to understand the interagency process and fully integrate the agencies into the military’s operation. Failure to do this can hurt the overall effort of a HA/DR operation.

Interagency Cooperation – Operation Unified Assistance

²⁸ U.S. Government Accountability Office, *Defense Management: U.S. Southern Command Demonstrates Interagency Collaboration, but Its Haiti Disaster Response Revealed Challenges Conducting a Large Military Operation* (Washington, DC: GAO, July 2010), 27.

²⁹ Peacekeeping & Stability Operations Institute (PKSOI), 3.

³⁰ U.S. Office of the Chairman of the Joint Chiefs of Staff, II-1-II-2.

Similar to communications, problems with cooperation and collaboration with civilian agencies hampered the military's HA/DR operation. In all, almost 200 NGOs operated throughout 10 locations in the aftermath of the Indonesian tsunami.³¹ Although, military forces were not operating with every NGO in the region, the necessity to collaborate efforts with civilian agencies during HA/DR operations becomes crucial to the success of the operation.

The link between military and civilian authorities was hampered during Operation Unified Assistance through a failure to include civilian authorities in decision briefs. For example, flag level briefs were held nightly aboard *USS Abraham Lincoln*, but due to the secret classification of the brief, thirty civilian members on the carrier from various OGAs, NGOs, and IGOs were not able to attend the brief.³² Similar to using the SIPRNET to communicate, collaboration with civilian agencies was hampered by excluding them from the briefs. Also, it is not clear whether civilian agencies were privy to the reports produced.³³ “The lack of capability and willingness to organize collective C2, information dissemination was limited within the humanitarian community, especially at the operational level.”³⁴ As a result, failure to collaborate and share information with civilian agencies hurt the overall effort of HA/DR operations.

On a larger scale, many after action reports mentioned the weak link between military and civilian organizations. Although the role of militaries was viewed as favorable, “concerns were expressed over the level of coordination among the militaries themselves, between the militaries and the Indonesian government, and, particularly, between the

³¹ Lefebvre, 21.

³² Eric Rasmussen, “Assessing Information Support at the Civil-Military Boundary,” www.pdf.usaid.gov/pdf_docs/PCAAB302.pdf (assessed 20 March 2011), 8.

³³ Ibid., 8.

³⁴ Reiner Huber, et al., 8.

militaries and the humanitarian agencies.”³⁵ Furthermore, “at the operational level, interaction between the military and non-military humanitarian actors, especially INGOs, was generally weak.”³⁶ The weak link between the military and civilian agencies was illustrated by a lack of representatives from many NGOs and IGOs operating in the region at CSF-536 headquarters.³⁷ Reasons for the lack of NGO/IGO representatives to CSF-536’s headquarters are unknown but highlight the absence of collaboration among the JTF commander and his staff with non-military agencies during a HA/DR operation.

Failure to integrate civilian agencies into the C2 structure and effectively integrate civilian at the command headquarters can limit the military’s effectiveness during HA/DR operations. Operation Unified Assistance brings to light the need for better interagency/NGO/IGO collaboration.

Interagency Cooperation – Operation Unison

Although the number of IGOs and NGOs were limited in the aftermath of Hurricane Katrina when compared to the Indonesian tsunami and Haiti earthquake, the difficulties between NORTHCOM and civilian agencies were still prevalent. Certainly, Hurricane Katrina disaster relief efforts differ because they are categorized as DSCA missions as opposed to FHA. Regardless, the interagency lessons learned from DSCA can be applied to FHA and HA/DR operations as well. Specific to JTF-Katrina, the military was working with civilian authorities such as state governors and there appeared to be a lack of collaboration between these civilian leaders and military authorities. “Northern Command did not have adequate insight into state response capabilities or adequate interface with governors, which

³⁵ United Nations, *Post-Tsunami Lessons Learned and Best Practices Workshop*, Report and Working Groups Output, Jakarta, Indonesia, 16-17 May 2005, 4.

³⁶ Reiner Huber et al., 8.

³⁷ Charles Daly, “Humanitarian Assistance and Disaster Relief Communications for the 21st Century” (research paper, Newport, RI: U.S. Naval War College, Joint Military Operations Department, 2007), 7.

contributed to a lack of mutual understanding and trust during the Katrina response.”³⁸

Having too few civilians during the civil-military planning process hampered interagency cooperation.³⁹ As a result, JTF-Katrina failed to achieve unity of effort with civilian authorities.

On a joint level, there appeared to be friction between U.S. armed forces and National Guard forces. In the aftermath of Hurricane Katrina, the state governors maintained control of their state guard forces under Title 32 and denied requests to relinquish their forces to Title 10 authority. This could have improved the military’s efforts if all military forces were operating cohesively under JTF-Katrina. Instead, multiple operations were occurring simultaneously, which hampered overall unity of effort. Although, this is not a decision that a JFC makes, one should be aware of the inherent limitations within the C2 structure and find ways to work cooperatively and effectively within the framework. As a result, LGen Honore “was not familiar with emergency operational procedures and personnel within the Katrina states.”⁴⁰ This further led to a lack of interoperability among Federal forces, National Guard forces, and civilian authorities.

Therefore, the inability of civilian authorities and NORTHCOM to understand each other’s capabilities and effectively collaborate during Operation Unison diminished each member’s role in the overall effort in the Gulf States. Of the three natural disasters described above, interagency cooperation during Operation Unison appeared to be the weakest.

Interagency Cooperation – Operation Unified Response

During Operation Unified Response, JTF-Haiti encountered similar challenges when working with civilian agencies. Many of the same difficulties experienced during Operation

³⁸ House Bipartisan Committee, *A Failure of Initiative*, 109th Cong., 2nd sess., 15 February 2006, 221.

³⁹ *Ibid.*, 222.

⁴⁰ *Ibid.*

Unified Assistance were encountered during relief operations in Haiti. Following the earthquake in Haiti, a lack of cooperation and collaboration among interagency/NGO/IGO was highlighted in after action reports.

____ USAID was the supported agency during Operation Unified Response. However, as with many OGAs, NGOs, and IGOs, USAID lacks a large staff and funding capable of coordinating efforts during a massive operation. To assist in the coordination with USAID, “JFCOM wanted to establish C2 at the U.S. Embassy,” but this decision “placed a large strain on the limited space and resources [in] the Embassy and limit[ed] the number of civilian augmentees.”⁴¹ Additionally, duplication of efforts between the U.S. military and civilian agencies emerged during the operation likely as a result of the military’s lack of understanding of the interagency process. “Better cooperation between U.S. responders/elements and the United Nations (UN) will both minimize conflict, redundancies, as well as providing the best possible support to the victims of the disaster.”⁴² JTF commanders need to be aware of the drastic differences in capabilities between civilian organizations and the military in order to effectively assist the supported agency.

Problems with interagency coordination are realized in the realm of operational logistics. For example, in Haiti, logistic plans lacked synchronization with the World Food Program (WFP).⁴³ Noted during Operation Unified Response, the JTF lacked personnel in areas needed to deliver and distribute supplies including medical relief supplies, food, and water.⁴⁴ Logistics during a HA/DR operation, as in any military operation, are extremely important because sound logistic plans with non-civilian agencies are needed to provide

⁴¹ Peacekeeping & Stability Operations Institute (PKSOI), 5.

⁴² Ibid., 10.

⁴³ Ibid., 7.

⁴⁴ Ibid., 8.

supplies quickly and effectively to the affected region. If the military has a weakened interagency process or lacks collaboration with civilian agencies, then unity of effort for the mission is hampered.

Interagency/NGO/IGO cooperation and collaboration cannot be overemphasized during HA/DR operations. In each of the three disaster relief operations mentioned above, poor interagency/NGO/IGO cooperation was a common theme. JTF commanders must anticipate and plan for a variety of challenges in order for this type of expansive cooperation to be successful during future HA/DR operations.

Counterargument

Certainly, every military operation produces lessons learned and JFCs attempt to meet the challenges associated with any military operation. Some commentators may argue that communications and interagency cooperation are no more challenging than any other aspect of an operation a JFC might face in the future. They may suggest the military consistently struggles with communications during regular operations and interoperability is always a concern when working with allies and other members of a coalition. Indeed, HA/DR operations differ from military-only operations because the military acts in a supporting role. As a result, the U.S. military approaches a HA/DR operation differently than other military operations. Nevertheless, the DOD needs to better understand the interagency process and the different capabilities civilian agencies bring to HA/DR operations in order to be effectively integrated with civilian agencies. Civilian representatives should be integrated into the military planning process (from mission analysis through war gaming) and similarly military representatives should be integrated into civilian agency planning. Although communications and interagency cooperation are challenging in all military operations, HA/DR operations set

themselves apart simply by the C2 structure (i.e. supporting v. supported relationships) and thus need to be dealt with differently.

Recommendations

After action reports produced following the above HA/DR operations reveal common recommendations that can enable the JFC to better prepare and respond to future HA/DR events. First, there is a recognizable need for increased planning both prior to a disaster striking and during the operation. The planning should include OGAs, NGOs, and IGOs to the maximum extent practical. HA/DR operations “have highlighted the need for disaster planning by leaders in all types of organizations – civilian and military.”⁴⁵ An opportunity to facilitate this disaster planning could be during the yearly operations the military already executes with partner nations and their militaries.

Second, discrepancies exist in how the effectiveness of humanitarian assistance programs are evaluated by civilian agencies and the DOD. “Civilian U.S. Government agencies evaluate the effectiveness of their programs through monitoring and evaluation, but equivalent analyses of DOD humanitarian assistance programs have been either ad hoc or entirely lacking.”⁴⁶ The military could apply the measurement tools used by civilian agencies in the evaluation of HA/DR programs. This could certainly provide another opportunity for increased dialog between the civilian agencies and the DOD as well as increase the trust and cooperation during HA/DR operations.

Finally and perhaps most importantly, there is a tremendous need for increased information sharing and for the free flow of information between the military and civilian

⁴⁵ Michael R. Weeks, “Organizing for Disaster: Lessons from the Military,” *Business Horizons*, 2007, www.weeks2000.com (accessed 20 March 2011).

⁴⁶ Eugene V. Bonventre, “Monitoring and Evaluation of Department of Defense: Humanitarian Assistance Programs,” *Military Review*, (June 2008), 123.

organizations. “Collecting and sharing data would increase planners’ ability to deconflict activities with other agencies and NGOs.”⁴⁷ Data sharing would increase all agencies situational awareness and allow them to make decisions within a common operating picture, thereby increasing the effectiveness of their decisions. As seen in the case studies within this paper, the military was at times reluctant, whether intentional or unintentional, to share information with the supported agencies. Failure to exchange information should be avoided at all costs during a HA/DR mission, and the military should work with civilian groups to put systems in place that facilitate the exchange of information. The military needs to be prepared to adapt to the communication needs of the supported agencies instead of the reverse. Increasing accessibility and compatibility of communication devices as well as creating and utilizing uniform communication systems are ways in which this exchange of information could improve.

Conclusion

While the disasters in 2004, 2005, and 2010 demonstrated how several nations and a variety of organizations can come together to mitigate suffering and the loss of life, they also revealed how the U.S. military, supported nations, and organizations can improve HA/DR efforts. The U.S. military is a large contributor in enabling supported agencies to achieve their objectives during HA/DR operations.

Lessons learned from HA/DR operations Unified Assistance, Unison, and Unified Response highlight two crucial areas that permeate through the lessons learned. Specifically, JFCs need to be aware of and mitigate the challenges associated with communications and interagency coordination during HA/DR operations. Communication and interagency cooperation are inextricably linked. Increasing communication capabilities should increase

⁴⁷ Ibid., 124.

interagency cooperation and vice versa. To achieve the commander's intent, JFCs, JFC staffs, and their component commanders need to have a sound understanding of these areas for improvement, particularly in terms of communication and interagency cooperation, and plan for implementing improved strategies into future HA/DR operations. Once these challenges are met, JFCs can more successfully minimize human suffering and loss of life.

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