

Sailors assigned to Coastal Riverine Squadron 3 train with Philippine marines aboard patrol boat during exercise Balikatan 2015, April 27, 2015 (U.S. Navy/Joshua Scott)



A Way Ahead for DOD Disaster Preparedness

By Frank C. DiGiovanni

On October 8, 2005, I was just 6 weeks into my assignment coordinating with the Pakistani military to keep the air logistics routes open through Pakistan into Afghanistan in support of Operation *Enduring*

Freedom and to coordinate coalition, Afghan, and Pakistani border operations. It was a pretty average deployment. That changed at 0850 local time. First, I heard a sound like a freight train and then the building began to rock like a cork bobbing, and the ground beneath us was acting more like liquid than solid, with visible ripples moving toward us. The ground continued to move for what seemed like forever, and one of my

Pakistani friends asked me, “Is this the end of the world?” I answered, “No,” but his question did give me pause. Finally, after almost 6 minutes, the noise subsided and the ground stopped moving. I did not know it at the time, but I had just experienced one of the largest earthquakes ever recorded in Pakistan. According to one source, the “shallow earthquake registered a 7.6 magnitude on the Richter scale.”¹ The earthquake “epicenter was located approximately 19 km north-northeast of the city of Muzaffarabad, the capital of the Pakistani-administered part of Kashmir,”² and “100 km north-northeast of Islamabad.”³

When all was said and done, in the 30,000-square-kilometer affected area, over 1,000 aftershocks were recorded.⁴ Some 87,000 people lost their lives.⁵ Approximately 56 percent of all housing was destroyed, leaving an estimated 3.3 million homeless.⁶ Nearly 65 percent of all medical facilities were ruined, and 50

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USNS *Mercy* in port at Naval Base Guam supporting Pacific Partnership 2015, largest annual multilateral humanitarian assistance and disaster relief preparedness mission conducted in Indo-Asia-Pacific region, September 4, 2015 (U.S. Air Force/Peter Reft)

percent of all schools were destroyed.⁷ Additionally, vital roads and highways were rendered impassable by landslides and bridge failures,⁸ making it nearly impossible to reach the hardest hit communities.

After the initial shock waves settled, my immediate thought was, “What can I do to help?” As the senior U.S. Air Force officer on the ground, I was ready to take immediate action, but was told to stand down because Pakistan, as a sovereign nation, must first request foreign assistance. The next day, when the request came, Ambassador Ryan Crocker’s orders were clear: “Get all the blankets, tarps, and water jugs you can get here . . . now.” I sprang into action, leveraging the central logistics hub for U.S. Central Command (USCENTCOM) for supplies, getting intra-theater air authorized, and within 12 hours the requested supplies were on the ramp in Islamabad.

This was not accomplished without a herculean effort, including a personal call to USCENTCOM Commander General John Abizaid, USA.

Although the mission was accomplished, even at the time I knew my responses were not always the most effective or efficient. Snap decisions were required to answer questions such as “Was pulling from wartime stocks the right thing to do?” “Why was it necessary to call the USCENTCOM commander personally to energize the relief effort?” “Were there other organizations that were better suited to support this effort?” “What was the right sequence of aerial port equipment and supplies to support the relief effort?” “What was the maximum on ground aircraft capacity of the primary airfield?” “Who was coordinating host-nation overflight clearances, airfield slot times, logistics inventory, storage, and dispersion of relief supplies to the affected

area?” “Where were our relief forces going to bed down?” “How were they going to be supported?” These are but a few of the questions that had to be answered in a very short amount of time. Although these questions seem comprehensive, they represent only about 20 percent of the decisions that had to be made within 2 hours of the Ambassador’s order to support the relief effort. To make matters worse, there was no continuity book or pre-deployment training to assist my decisionmaking process. After all, my mission was to support Operation *Enduring Freedom*, not conduct disaster relief.

Fast Forward 10 Years

As the Director of Force Training in the Office of the Assistant Secretary of Defense for Readiness, I am constantly scanning the horizon to understand, assess, and ensure our military forces are prepared to conduct the operations

they may be assigned to perform. This includes their ability to engage in foreign disaster relief missions. On this last mission in particular, I have a few battle scars. Although my training prepared me to adapt and seize the initiative in my efforts to support Pakistan after the earthquake, there were a lot of things I could have done better. They included such things as pre-planned procedures for transferring supplies and equipment to affected populations, standardized communications regimens across the wide range of relief participants and the host nation, dealing with myriad first responders who descended on the airfield within hours of the official request for help, the need for heavy-lift helicopters and a seaport to bring in heavy construction equipment, building relationships on the ground in a hurry and then acknowledging they lacked the trust engendered by long-term interaction, and recognizing my own absence of knowledge and training at that time.

Based on my experiences above, it appears that a “preparedness-focused” approach instead of “response-focused” approach may serve our men and women in the Armed Forces more efficaciously when planning and training for a disaster situation. Furthermore, the requirement shows no signs of letting up as there continues to be a constant demand signal for our nation to support those in need. Since the Pakistan earthquake, the Department of Defense (DOD) has supported over 50 foreign disaster relief operations including Operation *Unified Response* in Haiti in 2010, the Pakistan floods in 2010, Operation *Tomodachi* in Japan in 2011, Operation *Damayyan* in response to Super Typhoon Haiyan (Typhoon Yolanda) in the Republic of the Philippines in 2013, and more recently Operation *United Assistance* in support of the Ebola response in West Africa and Operation *Sahayogi Haat* in support of the 2015 Nepal earthquake response.

DOD and Disaster Response

The Defense Department is a learning organization, and thus much has changed in the 10 years since the Pakistan earthquake concerning how it

responds in support of foreign disasters. Changes include updated policy, operational guidance, and more efficient processes and procedures. DOD has clarified and updated policy and operational guidance on the conduct of steady-state humanitarian assistance programs and foreign disaster relief operations (for example, DOD Directive 5100.46, “Foreign Disaster Relief”). DOD has also worked with other U.S. departments and agencies to enhance cooperation before and during disasters, most notably in partnership with the U.S. Agency for International Development’s Office of Foreign Disaster Assistance. Finally, there has been progress made to provide training opportunities for U.S. forces on humanitarian assistance/disaster relief (HA/DR) topics. However, this training is neither institutionalized nor standardized across DOD and more needs to be done.

Every new response yields multiple lessons from which there have been clear successes as well as opportunities for improvement. DOD has improved systems for information-sharing with other responders. Focusing on preparation, planning, and the building of relationships with host nations has slowly begun to bear fruit as evidenced in the most recent Nepal earthquake where regional actors stepped in more readily and quickly than in the past.⁹ There is greater understanding by DOD leadership on the role relationships play in successful responses. Yet there are still issues that have consistently been identified, including:

- more in-depth DOD planning and communications with host nations
- improving U.S. forces’ knowledge of the operating space, particularly just-in-time knowledge
- integrating DOD into a U.S. whole-of-society approach to disaster relief
- working effectively with the United Nations (UN), international organizations, and nongovernmental organizations (NGOs) during response operations
- coordinating with the affected nation’s civilian and military authorities.¹⁰

My recommendation is to integrate and systematize disaster preparedness activities across DOD while addressing the persistent issues through training, exercises, and policy. Furthermore, I posit that these activities should be promulgated as an effective engagement mechanism with other nations and their militaries.

Why DOD and disaster preparedness, one might ask? The Department of Defense is often called upon to respond to large disaster relief operations in support of U.S. strategy and goals, primarily to alleviate human suffering. These operations show no sign of decreasing in number in the near term. From a strategic perspective, the consequences of disaster or crisis, whether to economies, infrastructure, social order, or the environment, could have long-term impacts on regional stability. Even a nation as large as the United States received aid from other nations in our response to Hurricane Katrina.

Disaster relief efforts also have been shown to increase positive opinion of the United States. During the 2005 Pakistan relief effort, the ability of the United States to respond, with DOD as a key partner, proved effective in improving the people of Pakistan’s perception of the United States. Prior to the earthquake there was a generally poor opinion of the United States, largely due to ongoing military operations in Iraq and Afghanistan. By November 2005, Neilson Company polling demonstrated “the number of Pakistanis who had ‘a favorable opinion of the United States’ had grown from 23 percent to 46 percent. By the spring, a Department of State poll conducted from late January to early February showed that number rising to 55 percent.”¹¹ Strong response capability supported by enhanced disaster preparedness is *critical* to the success of U.S. relief efforts and in increasing the positive opinions and understanding international partners have of the U.S. Government and the Defense Department.

Disaster preparedness activities can also directly benefit DOD in numerous ways:

Figure. The Disaster Preparedness Engagement System



- Use smaller footprints, which are generally repeatable and low cost, and can be innovative ways to engage partners.
- Assist other nations in building capabilities and bridging gaps between their militaries and civil sectors.
- Engender trust and foster enduring relationships with other nations.
- Support combatant command access in areas where traditional military-to-military activities may be limited.
- Aid in obtaining knowledge of the laws, institutions, systems, and capacities of partner nations, which assists combatant commands in planning and preparing for support operations.
- Ensure U.S. forces are adequately trained and ready.
- Enhance the timely response and effectiveness of U.S. forces during crises.

A Call for Preparedness and Systemization

After a disaster, minutes and hours count. The timeliness and harmonization of our effort will save lives. So how does DOD become more proactive within given authorities in support of the U.S. effort? National security priorities and budgetary constraints argue for a more systematized, consolidated approach to preparedness activities with

a focus on Phase 0 disaster preparedness. Focusing on being prepared and practicing for response with other nations, the UN, international organizations, and NGOs can assist in a better, more coordinated response when disaster strikes and action is required. To this end, I propose that DOD consider a framework for a systematic approach to disaster preparedness (see figure).

The proposed model, the Disaster Preparedness Engagement System (DPES), is a low-cost, high-impact, targeted, and integrated approach to enhancing DOD preparedness engagement using all-hazards disaster preparedness training and exercises as a platform. In response to a disaster, the first hours and days are critical. Responders must arrive and be operational as quickly as possible. The ability to do this is greatly enhanced when time and effort are put into preparedness activities prior to an event. DPES would systematize this activity at the combatant command level to derive the benefits previously mentioned for DOD, the combatant commands, U.S. forces, and other nations. An outcome would be ensuring that DOD response is timely and effective and that U.S. forces consistently know and understand their roles within disaster relief. It would enhance the integration of ongoing disaster preparedness activities into broader U.S. Government and DOD efforts, increase the cost effectiveness of these activities, support combatant command Phase 0 disaster preparedness activities, and enable evaluation and measures of effectiveness of disaster preparedness activities across the department.

Suggested Components

Initiating an all-hazards DPES requires a development process that supports collaboration, facilitates a deeper understanding of future challenges and opportunities, and produces desired effects. The system should contain several components to enhance DOD activities worldwide.

U.S. Forces Training. Despite enhanced and expanded knowledge and skills building in after action reports, current U.S. forces' training for Phase 0

activities and disaster relief remains limited and fragmentary. This must change. We need to assess the competencies that our military must possess to perform these missions and then develop learning outcomes and training courses to build these competencies. Certain courses may be brand new. Others may be adaptations of existing training. We must partner with the other U.S. agencies, for instance, to look for opportunities for senior leaders across the spectrum to participate in each other's training and exercises and to conduct technical and leadership interchange forums with the UN and NGOs. The development of a Just-In-Time Massive Open Online Course for military disaster response pre-deployment training in support of joint task forces should be considered.¹² As part of this U.S. forces training, we must ensure our personnel are familiar with the 2011 *Department of Defense Support to Foreign Disaster Relief (Handbook for JTF Commanders and Below)*.¹³ Cultural awareness and interpersonal relationship skills can be trained through cultural awareness and risk communication training. Consideration should be given to development of a qualification or skills identifier for forces with this training. Additionally, we should seek to develop a HA/DR qualification or skills identifier for forces with training and experience in disaster relief.

Combined U.S.–Host-Nation Disaster Preparedness Training. While primarily a method for engaging other nations, combined disaster preparedness training deserves its own analysis and activity. This is an opportunity to explore host-nation organic capabilities and where U.S. capabilities can complement or fill gaps, the development of disaster response game plans, and the practice of such skills as humility, empathy, and respect in addition to the more traditional skills of planning and logistics.

Across the globe, DOD conducts disaster training with others either bilaterally or through regional mechanisms. The normal method of engagement is the conduct of episodic tabletop or full-up exercises. Although episodic engagement is fairly pro forma, under DPES, a series of skills-based disaster preparedness table



Marine Medium Tiltrotor Squadron 265, attached to 31st Marine Expeditionary Unit, departs JS *Hyuga* in support of Japan's relief efforts following earthquakes near Kumamoto, April 19, 2016 (U.S. Navy/Gabriel B. Kotico)

exercises with train-the-trainer modules could be developed for DOD-wide use to support disaster preparedness game planning and bilateral operational harmonization. Courses must be skills-based and easily modified to reflect regional/local culture and language requirements. This would be a cost-effective way for DOD to support other nations engagement with an operational focus across the globe and enhance command disaster preparedness activities. Enabling local and regional actors to support long-term capability growth enhances sustainability of combatant command theater campaign plans. It would also boost regional cooperation and interoperability if personnel in different nations were to train and exercise to the same standards. Training together, using programs such as the National Guard's State Partnership Program, allows common knowledge of terminology, capabilities, practices, and procedures.

Geographic Combatant Command Disaster Preparedness Exercise Framework. The ability to integrate, coordinate, plan, and communicate with other Federal agencies, potentially

affected nations, the UN, international organizations, NGOs, and others has been the topic of numerous disaster response after action reports. The recommendations addressing these areas of concern focus on planning *before* disasters occur. To that end, a DOD-wide framework with templates developed for use by commands to support integration of disaster-related activities into current exercise structures would support command efforts if and when they are called upon to respond. Exercising disaster response would deepen relationships with key agencies, organizations, and nations. Additionally, it would help determine the best methods for communications and integrated planning and analysis prior to a response. Exercising together, whether through combatant commands or the State Partnership Program, allows for a common knowledge of terminology, capabilities, practices, and procedures.

Geographic Combatant Command Disaster Preparedness Engagement Framework. Disaster preparedness engagements can sometimes appear ad hoc, with commands struggling to

determine or realize the return on their investment of resources. Disaster preparedness activities with partner nations require a commitment of resources over time to fully realize benefit. This could be problematic in a DOD system where personnel move every 2 to 3 years and in a field where a wide variety of U.S. departments, UN agencies, international organizations, and NGOs are active.

The importance of personal connections in the implementation of a successful response has been highlighted in a number of studies and after action reports. Well-developed, integrated security cooperation activities related to disaster preparedness could support developing relationships with key actors in partner nations. They could also support building knowledge of institutions, bureaucracies, and the individuals in charge to support pre-disaster and operational planning.

A DOD-wide framework based on the best practices and successful initiatives from DOD and other U.S. agencies would support the development and implementation of truly integrated all-hazards disaster preparedness



Aerial view of Balakot, Jammu, and Kashmir, Pakistan, showing widespread devastation caused by earthquake on October 8, 2005 (UN/Evan Schneider)

engagements. Its structure should include a method of needs analysis, strategic planning, and development of partnerships as well as the development of capability-building plans with outcome goals, funding streams, implementers, and measures of effectiveness.

Geographic Combatant Command Theater Campaign Plan Sample Language. Many geographic combatant commands and their components already

conduct disaster preparedness engagements. These activities are prioritized within respective theater campaign plans to varying degrees. Numerous lessons-learned studies recommend enhancing Phase 0 activities and aligning security cooperation programming to build internal disaster management capabilities in partner nations. Studying commands where disaster preparedness activities are successful and fully integrated into

strategy would assist in drafting sample language and methodologies for use by all commands, and for implementation in theater campaign plan, regional plan, and country plan development.

Policy in Support of DOD Foreign Disaster Preparedness Engagement.

As previously stated, there is much in the way of policy to support foreign disaster relief—but limited policy for preparedness-specific activities. The 2012 Department of Defense cable “Policy Guidance for DOD Humanitarian Assistance Funded by the Overseas Humanitarian, Disaster and Civic Aid Appropriation” details the approved use of the appropriation for disaster preparedness activities under humanitarian assistance programming.¹⁴ Further elaboration of clear sample policy language for use of DOD assets and varied funding authorities in support of partner nation all-hazards disaster preparedness engagement and U.S. forces training would support the long-term efforts of commands in this arena.

A Means to Collect, Analyze, and Report Measures of Effectiveness. Finally, DPES must include the development of measures of effectiveness for both the Office of the Secretary of Defense, related to accomplishment of DOD-wide goals for disaster preparedness initiatives, and for the combatant commands, which require well-defined, user-friendly evaluation and measurement tools to assess their partner-nation disaster preparedness engagements, U.S. forces training, and exercises. Development-based methodologies for measurement may be considered as the system matures, as it would assist with DOD integration into U.S. interagency efforts. Identification of funding mechanisms to conduct rigorous assessments would also be required.

Conclusion

The implementation of DOD-wide systematization of disaster preparedness would help address some of the issues I experienced responding to the 2005 Pakistan earthquake in future disaster response efforts. Pre-disaster work with civilian and military actors would proactively create a game plan for disaster

response and develop the relationships needed to support rapid integration of effort, as well as improve the understanding of the participating nations' capabilities. Disaster preparedness engagement, training, and exercises, as well as an accurate awareness of the capabilities of the international disaster response community, would enable the joint task force to more quickly deploy and stand up in country with the right resources—equipment, personnel, and capabilities.

According to one report, the “recorded incidence of natural disasters and, more critically, large-scale disasters (10,000–99,999 people killed or affected) around the world has risen in the past 20 years.”¹⁵ Thus, DOD will continue to be called upon in support of large disaster relief efforts as a part of an integrated U.S. Government response. We must keep moving forward in the effort to shift disaster relief lessons from *identified* into lessons *anticipated and implemented*. We must better prepare U.S. forces at all levels throughout their careers to plan proactively to improve our response when disaster strikes. Furthermore, we must embed individual and unit preparation within a larger approach to all-hazards disaster preparedness activities as an engagement tool. Programs and activities that are successfully supporting long-term disaster preparedness goals must be highlighted and broadened across DOD. Practical models, tools, and templates are needed. Enhanced pilot projects and programs are required to demonstrate ideas and test the effectiveness and value of disaster preparedness activities across DOD and the combatant commands. Now is the time to bring together a coalition of stakeholders and willing partners and develop and fund systemic disaster preparedness activities. The Disaster Preparedness Engagement System detailed in this article is a good place to start. JFQ

Notes

¹ Sharon Wiharta et al., *The Effectiveness of Foreign Military Assets in Natural Disaster Response* (Solna: Stockholm International Peace

Research Institute, 2008), 107, available at <http://reliefweb.int/sites/reliefweb.int/files/resources/236476AD3257088DC125741000474F20-sipri_mar2008.pdf>.

² Earthquake Engineering Research Institute (EERI), *The Kashmir Earthquake of October 8, 2005: Impacts in Pakistan* (Oakland, CA: EERI, February 28, 2006), 1, available at <www.eeri.org/1fe/pdf/kashmir_eeri_2nd_report.pdf>.

³ Paul W. Phister, Jr., et al., *Pakistan Earthquake Case Study* (2009), 1, available at <www.dodccrp.org/files/case_studies/Pakistan_EQ_case_study.pdf>.

⁴ Ibid.

⁵ EERI, 1.

⁶ Ibid.

⁷ Phister et al., 1.

⁸ EERI, 1.

⁹ House of Representatives, *Everest Trembled: Lessons Learned from the Nepal Earthquake Response*, Hearing before the Subcommittee on Asia and the Pacific of the Committee on Foreign Affairs, 114th Cong., 1st sess., May 20, 2015, 8, available at <<http://docs.house.gov/meetings/FA/FA05/20150520/103500/HHRG-114-FA05-Transcript-20150520.pdf>>.

¹⁰ Jennifer D.P. Moroney et al., *Lessons from Department of Defense Disaster Relief Efforts in the Asia-Pacific Region* (Santa Monica, CA: RAND National Security Research Division, International Security and Defense Policy Center, 2013), available at <www.rand.org/pubs/research_reports/RR146.html>; Gary Cecchine et al., *The U.S. Military Response to the 2010 Haiti Earthquake: Considerations for Army Leaders* (Santa Monica, CA: RAND Arroyo Center, Strategy, Doctrine, and Resources Program, 2013), available at <www.rand.org/pubs/research_reports/RR304.html>; Rockie K. Wilson, *Operation Tomodachi: A Model for American Disaster Response Efforts and the Collective Use of Military Forces Abroad* (Cambridge: Harvard University, January 2012), available at <www.dtic.mil/dtic/tr/fulltext/u2/a567991.pdf>; Department of Defense (DOD) Office of Inspector General, *Most Geographic Combatant Commands Effectively Planned and Executed Disaster Relief Operations, but Improvements Could be Made*, Report No. DoDIG-2012-119 (Alexandria, VA: DOD Inspector General, August 14, 2012), available at <www.DoDig.mil/audit/reports/fy12/DoDig-2012-119.pdf>; Center for Excellence in Disaster Management and Humanitarian Assistance, *Lessons from Civil-Military Disaster Management and Humanitarian Response to Typhoon Haiyan (Yolanda)* (Joint Base Pearl Harbor–Hickam, HI: Center for Excellence in Disaster Management and Humanitarian Assistance, January 24, 2014), available at <http://star-tides.net/sites/default/files/documents/files/CFE_Lessons from Typhoon Haiyan.pdf>; P.K. (Ken) Keen et al., “Foreign Disaster Response: Joint Task Force-Haiti Observations,” *Military Review* (November–December 2010), available at <http://usacac.army.mil/CAC2/MilitaryReview/Archives/English/MilitaryReview_20101231_art015.pdf>.

¹¹ Kenneth J. Braithwaite, “U.S. Humanitarian Assistance/Disaster Relief: Keys to Success in Pakistan,” *Joint Force Quarterly* 44 (1st Quarter 2007), 22.

¹² The main and sub-learning blocks for the Just-in-Time Massive Open Online Course (MOOC) are as follows:

1. Situation Report
 - a. Consolidated open-source news (RSS feeds); b. U.S. Embassy assessment; c. Security posture and status (crime, insurgency, etc.); d. Relief effort demographics and what their capabilities are (other U.S. agencies, host-nation military, other countries, nongovernmental organizations, academia, industry, the United Nations, others); e. Surviving services and host-nation capabilities (military, power, water, food, medical, police and fire, infrastructure (airports, seaports, structures, roads, sanitation, telephone, Internet); f. Contracting of services (food, sanitation, supplies); g. U.S. point of contact in country.
2. Host-Nation Background
 - a. Government and political dynamics; b. History and culture; c. Religious dynamics; d. Host-nation population and military sentiments toward the United States; e. Border nation dynamics; f. Health and disease issues; g. Legal status.
3. Managing Relief Effort Partnerships
 - a. Showing “humility, empathy, and respect”; b. Cross-cultural relations [“showcase session”]—this activity will use the Virtual Cultural Awareness Training (VCAT) if the affected nation is in the database (there are presently 49 countries in the database). VCAT deploys game-based learning; storytelling; simulation; intelligent tutoring; first-person host-nation and U.S. personnel interviews to provide self-paced learning, feedback, and remediation; c. “Business” etiquette; d. You are in a sovereign country on a humanitarian mission; e. Setting up a coalition command and control logistics center; f. Working with the host nation and other first responders—building trust and interpersonal relationships; g. Interfacing with the affected population and local government; h. Utilizing host-nation security and the use of force for self-defense.
4. Staying connected and updating the MOOC.

¹³ Department of Defense Support to Foreign Disaster Relief (*Handbook for JTF Commanders and Below*), GTA 90-01-030 (Washington, DC: DOD, July 13, 2011), available at <fas.org/irp/doddir/dod/disaster.pdf>.

¹⁴ *Policy Guidance for DOD Humanitarian Assistance Funded by the Overseas Humanitarian, Disaster, and Civic Aid Appropriation* (Washington, DC: DOD, May 7, 2012), available at <<https://scms.usaid.gov/sites/default/files/documents/1866/FY12%20HA%20Policy%20Guidance%20>>.

¹⁵ Wiharta et al., ix.