USACE Helps Pakistan Recover From Monsoon Season

By Ms. Alicia M. Embrey

In July 2010, monsoon rains of historical magnitude caused catastrophic flooding throughout Pakistan. Approximately one-fifth of the country was submerged by floodwaters. The flood wiped out livestock, homes, crops, and critical infrastructure (such as roads, bridges, and railways). According to Pakistan's Natural Disaster Management Authority (NDMA), more than 20 million Pakistanis have been affected by this catastrophic event—the country's worst monsoon season in 80 years. Damages have been estimated in the billions.

The United States responded to Pakistan's international plea for assistance by standing up several task force organizations under the command of the Office of the Defense Representative to Pakistan (ODRP) to support the relief efforts. As floodwaters began to sweep downstream and overrun riverbanks, the United States immediately ramped up to deliver much-needed humanitarian assistance. According to the U.S. Army Corps of Engineers (USACE) Transatlantic Division's Office of the Deputy (G-3) Contingency Planner, the unprecedented amount of rain and floodwater in the region triggered a U.S. Central Command request for forces for the Division. This initiated USACE involvement in the effort, with the task to develop a rough order of magnitude for the damage and potential reconstruction of Pakistan.

ODRP initially requested the assistance of one engineer officer with experience in engineer planning, bridging, and ground lines of communication assessments. Later, USACE was asked to provide a five-man team of consultants to help the Asian Development Bank with their damage and needs assessment. Due to his diverse engineering background and experience in conducting engineer reconnaissance as

55th Signal Company (Combat Camera)

A Soldier from the 16th Combat Aviation Brigade hands out candy to Pakistani children in Swat Valley.

Photo by Marine Lance Corporal Johnson Simeon

A Soldier verifies grading for helipad improvements at Ghazi Air Base.

an Army engineer, the commander of the 565th Engineer Detachment Forward Engineering Support Team (Honolulu District) was requested by name and chosen to represent USACE in this effort. His mission was to help ODRP with planning and design requirements for the temporary forward operations base camps from which the humanitarian missions were staged.

Keys to Success

As with most catastrophic events, no one knows what to expect until reaching ground zero—yet being well trained and flexible and having a good support network are all keys to success. The chosen commander, who didn't know what to expect when he got the call to support flood relief efforts in Pakistan, was originally billeted as a planner/ground lines of communications/bridging assessor supporting ODRP. Once in theater, where the requirements became clear, he saw flood victims suffering and desperately needing fresh water, food, and medical supplies. Forward operating bases were required for fixed- and rotary-wing aircraft to deliver these crucial basic needs—and an engineer's forte is the planning, design, and construction of these bases.

Because of the flood's devastation, road access to remote villages in the mountainous north and floodplain in the southern part of Pakistan was cut off. Fixed-wing aircraft provided humanitarian assistance by flying supplies to forward operating bases; then rotary-wing aircraft moved those supplies to the U.S. Agency for International Development (USAID) and World Food Program distribution locations in isolated parts of the country. During his assignment in support of the humanitarian assistance mission, the commander was responsible for the construction and oversight of three major forward operating bases located at existing Pakistan military bases—Chaklala Air Base, Pano Aqil Army Cantonment, and Ghazi Air Base. These forward operating bases were used by more than 500 U.S. military personnel conducting fixed- and rotary-wing operations as they delivered relief supplies to flood victims. The development of these bases included airfield and road improvements, troop billeting and work spaces, sewer systems, water supply and distribution, electrical upgrades, and other critical facilities required for successful operations.

Since the 15th and 26th U.S. Marine Expeditionary Units (MEUs) and the U.S. Army 16th Combat Aviation Brigade (CAB) needed facilities to conduct their operations in one forward operating base, they constructed two wells and a water tower to supply water for their latrines on the flight line. To mitigate hazards to rotary-wing assets, they relocated overhead electrical lines. Although they didn't have their own engineer units on the ground, they were able to accomplish more than 21 infrastructure improvement projects with an engineer, contingency contracting officers, the local labor force, and a partnership with the Pakistani military.

Tight Deadline

Just days after arriving in flood-stricken Pakistan, the commander was tasked to conduct an engineer reconnaissance and lay out a base camp for 300 personnel at Chaklala Air Base near the Pakistan capital of Islamabad. The base was used as an intermediate staging area for the 16th CAB before its movement north to Ghazi Air Base. With reachback support from USACE, the commander was able to provide the task force with a base camp design, technical specifications, and contract scopes/statements of work within 48 hours. Immediately afterward, he was tasked to conduct an engineer reconnaissance of Pano Aqil Army Cantonment—home to the Pakistani Army's 16th and 21st divisions and located about 25 miles north of Sukkur in Sindh province. The 15th and 26th MEUs

Photo by Marine Lance Corporal Johnson Simeon

Pakistani flood victims scramble for food packages brought to Sindh Province by U.S. Marines.

eventually made Pano Aqil their home for the next few months, while delivering relief supplies to flood-affected areas in southern Pakistan. During the two-day reconnaissance, the commander met with the Pakistani military liaison officers to conduct a feasibility study and to determine the requirements of the forward operating base.

Returning to Islamabad, the commander briefed the engineer findings to the ODRP senior leadership. A day later, he was part of a specialized ten-man quartering party with a mission to stand up the forward operating base and have helicopters deliver relief supplies within days.

The forward operating base at Pano Aqil supported approximately 200 Marines from the 15th and 26th MEUs, ODRP personnel, and 8 Marine aircraft (4 CH-46s and 4 CH-53s). To accommodate the troops, upgrades were required: renovating barracks, upgrading electricity, installing sewer treatment systems, improving the airfield to be AC-130-capable, constructing work spaces, and establishing a dining facility in an existing structure. The team—with support from the Pakistani military—met the tight time frame in getting the base camp stood up.

Personal Account

While stationed at the cantonment, the 565th commander also helped in the delivery of supplies to stranded flood victims. The 15th and 26th MEUs delivered millions of pounds of food and supplies in the southern Sindh Province, the worst-hit area, covering hundreds of miles. Most of the flood victims in the south were hungry, destitute, and still marooned by a sea of floodwater. It was a horrible sight to see. Mothers, children, and the elderly were stranded on rooftops and on islands with no access to food or fresh water. With people's lives shattered and homes gone, there were hundreds of square miles underwater and much suffering. The commander observed that as the dedicated and hard-working Marines, Airmen, Sailors, and Soldiers worked alongside their Pakistani counterparts, friendships visibly formed day to day.

During the commander's service as an ODRP engineer liaison to the Pakistani government and military, international community, USAID, and the State Department, his contributions also included conducting engineering and ground lines of communications assessments. He generated three major engineering infrastructure reports, numerous computer-aided design and drafting (CADD) plans, and technical specifications. Additionally, the floods wiped out numerous bridges throughout Pakistan, cutting off transportation routes for supplies. The commander made significant and enduring contributions by playing a key role in coordinating the transfer of more than $8 million in bridging assets to the government of Pakistan. The bridges, held in "theater reserves" in Kuwait, were shipped to Pakistan, ground-transported to northern Pakistan, and delivered to the Pakistani military. The bridges were administratively transferred through USAID to NDMA for the Pakistan military engineers to install, and an official bridge turnover ceremony was held at the U.S. embassy in Islamabad on 1 December 2010.

The commander deployed back to the Honolulu District in mid-December 2010 and was one of the honorees at the Honolulu District town hall meeting on 10 January 2011. According to the Honolulu District commander, the outstanding work of the 565th commander under difficult conditions received the attention, praise, and accolades of the vice admiral running the mission in Pakistan.

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