

Getting the Right Answers

By First Lieutenant Kelly Lanternier

In the current operating environment in Iraq, it is more important than ever to have all of the right answers. But what do you do if you are an engineer officer who is uncertain of the correct answer in a particular situation? The solution is easy—use the engineer “reachback” capability. The reachback capability is nothing new. The United States Army Engineer Research and Development Center (ERDC) has been using it for years, but unfortunately, awareness of this great resource is either unknown or unused by most engineers. Just recently, the 561st Engineer Company “Warriors” in Iraq learned just how valuable that resource is.

The reachback capability provides engineers in remote locations access to unique subject matter experts. This system connects the engineers with questions to the engineers with answers. ERDC employs highly educated, well-qualified professionals with diverse engineering degrees to help tackle any problem, and they are available to Soldiers on the ground 24 hours a day.

Engineers from the 561st were assigned the mission of constructing an unimproved road to provide freedom of maneuver to an armor task force near the Iranian border. Along the route was an unclassified bridge with no known load classification capacity. Field manuals only account for maximum load capacities (MLC) up to certain limits and knowing the exact MLC of the bridge became extremely important to the maneuver units on the ground, which have various pieces of heavy equipment of many different weights.

The professionals at the United States Army Maneuver Support Center (MANSCEN), at Fort Leonard Wood, Missouri, were quick to jump aboard to help when the 561st contacted them via e-mail. The 561st engineers provided MANSCEN with all of the known dimensions and data. In addition, the 561st engineers were able to communicate on-site using a device called the TeleEngineering Toolkit, enabling the engineers at MANSCEN to “see” the problem.

Essentially, the TeleEngineering Toolkit is a video teleconferencing unit hooked up to a laptop computer and a mobile phone. With a precoordinated linkup time, the system lets both parties communicate in real time. After compiling all the



Photo by Specialist Josiah E. Johnson

With a clear view of the bridge in the background, the MANSCEN engineers can see the problem and receive valuable feedback from the engineers on the ground.

necessary information, a team of stateside bridge engineers was busy writing down formulas and going over equations, ultimately concluding that the bridge was not safe for tracked vehicles weighing more than 82 tons.

Engineer reachback is not limited to bridge classification. It can be used in almost any situation where engineers have limited resources to solve complex problems. The subject matter experts at MANSCEN are equipped with engineering expertise ranging from the history of a specific watershed to building designs to soil stabilization methods. One of the most important lessons learned by the deployed Soldiers of the 561st Engineer Company—do not hesitate to refer problems to the qualified engineers at MANSCEN. 

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