

ngineers must solve many problems before any project or mission can start. The 186th Engineer Company's Task Force Denali overcame a unique problem during a mission to clear the new convoy route from Kuwait to Iraq during April and May 2007. The problem was that the task force needed to cross a 39-inch pipeline that runs the entire length of the border between Kuwait and Iraq. The Kuwaiti government owns the pipe and would allow it to be cut the

day traffic started moving on the new route, but no earlier. Even though the government had approved the route, it did not want the pipe cut prematurely, and coalition convoys could not roll on the new route until two turnarounds were built and eight culverts had been cleared. The 186th would be responsible for breeching the border and meeting the route clearance requirements. The bulldozers, scrapers, and graders needed by Task Force Denali to clear the new route had to

cross the border, but could not simply jump 39 inches to get across the pipeline. A delay in opening the new route would have meant five more months of using the previous convoy route, which travels near two cities in Iraq that pose a tremendous and constant threat to U.S. forces. A delay would mean putting Soldiers in undue danger.

Several solutions were considered. One option was to build an earth ramp that would cover the pipe and road and slope enough to allow vehicles to drive over it. This would call for a bulldozer to push dirt high enough on the road to clear the top of the pipe. A second option involved backing two M870 lowboy trailers against each

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Two lowboy trailers, each loaded with another lowboy trailer, were hauled to the site.



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Cranes set HMMWVs on the Iraqi side of the pipeline for the security platoon.

other over the pipeline. A third option was to take one M870 lowboy trailer and back it against the pipe while building an earth ramp on the other side. The fourth option was to cross into Iraq on Main Supply Route Tampa and take a long detour to get to the new route.

With each potential solution came additional problems. Earth ramps on both sides of the pipe would use a crane to place a bulldozer on the far side of the pipe to push dirt. The amount of dirt required would leave large holes. This option could also leave holes in the asphalt when the bulldozer was working to build the ramp, and all the dirt from the ramp would have to be removed before the route opened. The third option would also use dirt that would need to be removed. The last option would take too much time and would also put the engineers on the much more dangerous route. Thus, it was decided that the best option was to use the M870 lowboy trailers to form a bridge into Iraq.

The noncommissioned officer (NCO) in charge of the mission used 16 Soldiers from 2d Platoon for the breeching mission. The idea for using the trailers still needed to be tested to make sure it would work. With help from the maintenance platoon, the NCO and his team measured the height of the trailers to ensure that they would sit high enough to clear the obstacle. The Soldiers backed two trailers against each other and took measurements—each stood exactly 39 inches at

its crest. The next step was to ensure that the trailers could withstand the weight of the engineer equipment being driven across them. The trailers would have to hold the weight of the equipment plus the weight of the truck hauling the equipment. The test proceeded without a hitch.

Now other problems came to light. The engineers did not want to disturb the pipe at all, but the trailers backed against the pipe left a gap. They used rubber matting, sand bags, and ³/₄-inch steel plating to cover the gap across the pipe. The next problem was the fact that the trailers would be sitting directly on the asphalt. Rubber matting was placed beneath the drop necks of the trailers to protect the road. Wood braces sat directly underneath the trailers to prevent their suspension system from giving under the weight of the equipment. The last concern was that the trailers themselves might shift and roll into or away from the pipe. A trailer's brakes will lock once the trailer is detached from a truck, but they are only designed to hold as equipment is driven onto the trailer, not while having that equipment loaded onto another truck and driven across. The Soldiers for the breeching mission used chains to hold the trailers in place against each other and the pipe.

The first convoys on the new route were scheduled for 15 May, so the breeching mission was set for 16 April to make sure the engineers crossing the border would have enough time

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Braces underneath the trailers prevented their suspensions from giving when traffic crossed.

to construct the turnarounds and clear the required culverts. Four lowboy trailers were placed to ensure that there would be enough room for traffic to cross. The two cranes for the mission were a military 22T crane and a civilian 50T crane. Two lowboy trailers, each loaded with another lowboy trailer, were hauled to the site. Cranes set high-mobility multipurpose wheeled vehicles (HMMWVs) on the Iraqi side of the pipeline for the security platoon. Then the cranes moved two lowboy trailers to the Iraqi side of the pipeline and set them as close to

the pipe as possible without damaging it. Rubber matting was placed beneath the trailers, and sandbags, matting, and steel plates were set into place on the pipe. The crew left a 1-foot gap between the side-by-side trailers to give them room to shift safely. Chains were attached only to the outside portions of the four trailers to help the brakes hold them in place. Steel plates covered the holes in the trailers where the hookup and chains are kept. Braces underneath the trailers prevented their suspensions from giving when traffic crossed. Sandbags were placed at the bottom of each ramp to allow the equipment an easier way to drive onto the bridge. The completed bridge measured 106 feet long and 17 feet wide, which was enough space for any equipment to cross. The breech took two hours to complete and allowed the security platoon to cross back into Kuwait without having to be picked up by a crane.

The Soldiers crossed the border and completed the safer route for convoys going in and out of Iraq. The pipe was then cut, the temporary bridge removed, and the new route opened on time, thanks to the leadership, teamwork, and the "never quit" attitude of these engineers.

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