

Holding Back the Flood at Hadithah Dam



by Michael R. Mullins and Cherilyn A. Walley

ON 2 April 2003, CENTCOM Brigadier General Vincent Brooks announced that special operations forces had seized Hadithah Dam, “a very important dam that could potentially flood the Euphrates River leading down toward Baghdad, and particularly in the area of Karbala.”¹ That short statement belied the significance of the dam, and barely hinted at the problems encountered within the structure itself. Though the operation that led to the dam’s capture was dramatic, the struggle to keep the dam operational was just as intense and at least as dangerous.

In the early morning hours of 1 April 2003, elements of 3rd Battalion, 75th Ranger Regiment, assaulted and captured Al Qadisiyah Dam, or Hadithah Dam as it is commonly referred to. Measuring eight kilometers at its widest point, Hadithah Dam is the one of the largest such structures in the Middle East. The resulting Qadisiyah Reservoir has a capacity of 8.2 billion cubic meters, and is a critical source of water for irrigation and electrical power in western Iraq.² By

capturing the dam, coalition forces ensured that Iraqi forces could neither use the facility as a stronghold or destroy it and flood the valley. Seizing the Hadithah complex also protected the water supply and ability to provide electricity, both of which would be critical resources during the approaching summer months.



SFC Kevin Camp (standing at left) and the dam manager (standing at center) held numerous meetings to discuss facility operations. Once the Iraqi manager was convinced that U.S. forces were intent on preserving, not destroying, the dam, he cooperated fully.

While Rangers excel at capturing objectives, the assault force was not well suited to actually operating the dam. They quickly called for assistance from E Company, 96th Civil Affairs Battalion (Airborne), which had been attached to the regiment for just such an eventuality.³ Regimental commander Colonel Joseph Votel ordered Sergeant First Class (SFC) Kevin Camp, a member of Civil Affairs Team-Alpha (CAT-A) 52, to deploy to the dam on 2 April. SFC Camp had

twelve years of SF experience as an engineer, and was better qualified to emplace demolitions on a dam than to manage one, but his three months work on a dam in Virginia following his high school graduation made him the most qualified person available. SFC Camp’s



The multilevel Hadithah Dam complex houses six large generators and six turbines, which provide electricity to the surrounding region

mission was to conduct a rapid assessment of the dam structure, take photographs of parts in need of repair, and return to base at H1 within twenty-four hours.

Intense Iraqi artillery barrages targeting the Rangers on the dam delayed SFC Camp's mission for two days. On 4 April, SFC Camp finally found a seat on an MH-47 Chinook loaded to capacity with personnel and supplies. The helicopter arrived at the dam late that evening, during a break in the mortar and artillery attacks. Camp wasted no time in starting his assessment, and immediately began making his way through the honeycomb-like levels of the dam, identifying significant electrical and structural problems within the facility. In the course of his assessment, SFC Camp discovered that the dam's situation was more critical than he'd originally been told. A transformer had been hit by enemy mortar or artillery fire, and it had back fed into the dam and shut down power. By the morning of the fifth, only one of the six generators had been repaired, and five of the six turbines were down for maintenance or lack of spare parts.

When SFC Camp conducted his first meeting with the Iraqi dam manager to get his appraisal of the condition of the facility and the status of the dam workers, Camp found that the manager was reluctant to share information: "Keep in mind, the manager and all the dam workers had been held in a secure section of the dam for nearly one week. The dam workers, at that time approximately twenty-five personnel broken into

two shifts, were escorted by guards whenever they moved about the complex and were then returned to one of the two worker rooms where they were kept."

Following his initial discussions with the dam manager and his assistant, SFC Camp determined his top priorities were to organize the dam employees in order to ensure the continuous operation of the facility and to repair critically damaged components. Though Camp was scheduled to return to H1 the next day, the Ranger company commander on site informed him that no aircraft were scheduled to arrive in the next twenty-four hours. Stranded at the dam, SFC Camp used the time to develop a more detailed appraisal of the problems found throughout the dam facility, including those involving the dam personnel.

In the course of working with the dam manager and his deputy, SFC Camp concluded that many of the dam workers believed that U.S. forces would destroy the dam, not preserve it. Camp worked to improve his relationship with the manager and help him understand that they were there to help repair the hydroelectric facility and return it to normal operations. SFC Camp also permitted the dam manager and eight higher level workers to listen to the radio on a regular basis. "This worked in our favor in getting the dam workers to completely understand the Americans were in charge." Through the radio broadcasts, the employees learned that U.S. forces had captured Baghdad, and began to believe that the coalition forces were

there to stay. As word spread beyond the facility, most enemy soldiers in the town of Hadithah and the surrounding villages put aside their weapons, removed their uniforms and departed the area. With their departure came increased cooperation from the civilians who remained behind.

After nearly a week of managing one of the largest dams in the Middle East all by himself, on 11 April SFC Camp was joined by two CA teams: CAT-A 51, comprised of Captain Kevin Burke, SFC Eddie Huey, SFC Theodore Even, and medic SFC Scott Johnson; and the rest of SFC Camp's own CAT-A 52, comprised of Major (MAJ) William Highberger, SFC Chris Arndt, and medic SFC Keith Gates. SFC Camp, the Team Engineer on CAT-A 52 was exhausted and relieved that the two teams had finally arrived. The two CA teams began by immediately identifying team tasks and individual responsibilities. CAT-A 52 took charge of managing the dam workers and facility operations, while CAT-A 51 took responsibility for organizing and supervising shift changes and coordinating for the return of Iraqi remains to local villages. The rest of CAT-A 52 soon became all too familiar with the challenges SFC Camp had been facing alone.

SFC Camp's assessments revealed that maintenance on the facility had been neglected for years. Designed by the Soviets and built during the 1970s, expanded in the late 1980s, and then placed in "cold storage" shortly before the Gulf War in 1991, the dam seemed to suffer from a consistent lack of attention. After the war, the dam was brought online and began producing electricity, though efficiency was hampered by neglect and lack of resources. The Iraqis blamed UN sanctions for the lack of desperately needed spare parts, but the dam's problems ran deeper than that. SFC Camp discovered that most of the door seals in the lower levels of the complex were rotted, which would allow the entire facility to flood if water rose to the level of the deep well pumps. If flooding did occur, it could cause an imbalance within the facility structure itself, resulting in a catastrophic failure capable of rupturing the dam. The local workers were all too aware of the extent of the electrical and structural problems of the dam, and the majority of them wanted to return home rather than risk the dam's collapse with them inside.

Even as the battle outside the facility waned, the



Al Qadisiyah Dam is commonly referred to by the name of the nearby village Hadithah. Located northwest of Baghdad on the Euphrates River, the dam provides electricity and irrigation capability to much of central Iraq.

difficulties inside the dam escalated. By 10 April, the situation was critical. The generators continually broke down, which hampered efforts to bring the main turbines back online. However, the generators were only half the problem; each time a turbine was started, the turbine would blow out the electrical panels and immediately stop again, cutting power to the pumps that kept the facility from flooding. In addition, the shaft of the only "working" turbine was warped. Under normal circumstances, the warped shaft would have rendered the turbine useless, but rising levels of water forced the dam crew to use it anyway. As soon as the turbine was engaged, the warped shaft caused a vibration that reverberated throughout the entire structure. SFC Camp and MAJ Highberger were in the lowest level of the dam assessing the condition of the deep well pumps and checking on the level of the rising water when the vibrations began. Alarmed by the violent shaking, MAJ Highberger thought the dam might be collapsing and began speeding towards the stairs in order to get up and out of the lower levels of the facility. SFC Camp, knowing the volume and intensity of the water that would rush in if the dam collapsed, calmly called to the major: "No sense in running; you can die tired or just die."

Workers managed to shut down the broken turbine before the dam collapsed, and they immediately began

checking for significant structural damage. Yet, the water continued to rise, and with it the workers' fears. Several times, SFC Camp had to literally force the dam employees to work on the facility, even as they insisted that nothing could be done to fix the dam. Their fear of the rising water was justified; if the water had risen approximately six more inches than it did, it would have reached the electrical components in the deep well pumps, requiring all personnel to be evacuated. In spite of the danger and the resistance, SFC Camp and the Iraqi dam employees eventually repaired one of the turbines, and brought a second turbine online soon after that. Only one deep well pump was running by noon

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on 11 April, and to continue running that pump alone would eventually burn it out. The dam workers eventually got two deep well pumps to function, though that still left them short of the three required to prevent the water from rising. Problems continued with the generators and other electrical components; however, the crew's increasing experience in resolving a multitude of problems, and SFC Camp's effective management of the dam workers, helped everyone involved to respond more successfully to troubles whenever they occurred.

Approximately one week after the dam was captured, an Army Corps of Engineers assessment team consisting of one officer and two NCOs arrived to assist in the operation of the dam. None of the personnel had the training or experience to evaluate or operate the dam, so the assessment team chief conducted daily, real-time video conferences (VTCs) with the U.S. Army Corps of Engineers (USACE) technical experts in Mobile, Alabama and other dam specialists in North Carolina.⁴ Realizing that the dam manager was more knowledgeable about the facility than anybody else could be, the Corps of Engineers representatives in North Carolina asked to have the dam manager present during the VTCs. Including him in the conferences also accorded him proper respect in the process of restoring the dam to full operation. With the arrival of the USACE

team, SFC Camp was relieved from his temporary and unexpected duty as NCOIC (non-commissioned officer in charge) of the fifth-largest dam in the Middle East.

None of the CAT-A personnel anticipated managing a hydroelectric complex when they deployed for Operation IRAQI FREEDOM. SFC Kevin Camp certainly did not plan to take charge of Hadithah Dam when he set out to conduct his initial assessment. Yet, managing a dam is exactly what SFC Camp and his fellow Civil Affairs soldiers found themselves doing in April 2003. Through sheer persistence and creative thinking, SFC Camp prevented environmental, logistical, and strategic disaster by keeping the dam operational. SFC Camp summed up his tour at Hadithah in this way: "I knew that if the dam had busted, even due to structural failure, most Iraqis would have blamed the coalition forces. I told workers when they wanted to leave the dam that they were required to remain at the facility and continue operations; we were going to get it working, whatever it took. If we had lost the dam, it would have had an enormous impact on the war. It could have turned the people against us. Not only would the U.S. be seen as destroying the dam, there would have been a lot of bridges washed out downriver and floods all the way to Karbala, not to mention the deaths of civilians and potentially U.S. military personnel." As is often the case in Civil Affairs, SFC Camp and the other members of CAT-As 51 and 52 successfully performed a seemingly isolated mission that in reality had a significant and far-reaching impact on U.S. interests abroad. 📌

Endnotes

- 1 CENTCOM Operation Iraqi Freedom Briefing, 2 April 2003, transcript available at <http://www.centcom.mil/CENTCOMNews>, Release Number 03-04-25.
- 2 World Commission on Dams, "Dam Statistics: Africa and the Middle East Regions," December 1999, www.dams.org/kbase/consultations/afrme/dam_stats_eng.htm.
- 3 Unless otherwise noted, information in this article is from: Sergeant First Class (SFC) Kevin Camp, SFC Chris Arndt, SFC Eddie Huey, and SFC Keith Gates, E Company, 96th Civil Affairs Battalion (Airborne), interview by Michael R. Mullins, 23 February 2004, Fort Bragg, NC, tape recording, USASOC History Office Classified Files, Fort Bragg, NC.
- 4 U.S. Army Corps of Engineers, "Corps 'TeleEngineering' Contributes to the War Fight," www.usace.army.mil/inet/functions/cw/hot_topics/teleengineering.htm.