

PORT DAMAGE REPAIR: USING ARMY ORGANIC EQUIPMENT TO TEST DEVELOPING MISSION SETS

By Captain Tyler J. Brandt

The history of U.S. military port damage repair (PDR) and the evolution of warfare and military strategy are closely tied. The concept of PDR became significant during World War II, when the U.S. military recognized the strategic importance of maintaining operational ports for transporting troops, equipment, and supplies. The primary responsibility for developing specialized units and techniques for rapid port repair and construction belonged to the U.S. Army Corps of Engineers. The efforts of the Corps of Engineers included the creation of the 1058th Port Construction and Repair Group, which deployed to the U.S. European Command to repair damaged ports, such as those in Normandy, France, following the D-Day invasion.

Recognizing the critical role of PDR in supporting military operations overseas, the U.S. military has refined its PDR strategies in the years since World War II. Over the last 30 years, the U.S. Navy has made significant strides in PDR. Highly trained Navy Seabee construction battalions, which have been at the forefront of these efforts, can perform various construction tasks, including PDR, under combat conditions. They have deployed to numerous conflicts, including the Gulf War, the Iraq War, and the War in Afghanistan, where they have repaired and rebuilt ports damaged by enemy action or natural disasters. The Navy has heavily invested in advanced technology and training to enhance Seabee capabilities, including those of underwater construction teams.

As the U.S. military increases its presence and deployment of larger forces across the globe, PDR is becoming a joint problem set; the Navy must provide the necessary expertise and experience, while the Army must provide the manpower required to accomplish this strategic mission. XVIII Airborne Corps, Fort Liberty, North Carolina, also known as “America’s Contingency Corps,” has identified this and other problem sets, including airfield damage repair and railroad and pipeline emplacement and repair. The corps is designed to be highly mobile and flexible, capable of deploying to respond to global crises on short notice. Its ability to quickly assess, repair, and manage port facilities is a critical

component of its broader mission to provide rapid, decisive action in response to global crises. Where current U.S. Army doctrine does not exist, the corps has turned to the 20th Engineer Brigade, Fort Liberty, to fill capability gaps. Engineer construction companies and dive detachments from the 92d Engineer Battalion, Fort Stewart, Georgia, are training alongside the U.S. Navy to provide depth in the event of large-scale combat operations in different theaters.



Soldiers drive a timber pile into place in the Savannah River during low tide.



Soldiers deconstruct damaged sections of a pier.

Under the constraining condition of completing work with organic Army equipment, the 92d Engineer Battalion



The 554th ECC and the 497th MRBC move a timber pile into place to test pile driving from an IRB.

developed a basic PDR package consisting of carpenters, electricians, hydraulic equipment kits, and a hydraulic excavator fitted with a pile-driving attachment. The pile-driving attachment is an enhanced pavement breaker attachment with a welded metal cage to maintain the stability of piles while being driven into the seafloor. After completing iterations to refine pile-driving solutions, the 92d Engineer Battalion needed to employ a barge to float the hydraulic excavator into position. Working together, the 554th Engineer Construction Company (ECC) and the 497th Multi-Role Bridge Company (MRBC) tested the placement of the hydraulic excavator on a seven-float improved ribbon bridge (IRB). Three bridge erection boats were required in order to maintain positioning of the IRB. The test was successful, with minimal sway or stress on the internal bays of the IRB. The 554th ECC and the 497th MRBC determined that to mitigate tidal and wave patterns, an anchoring system would be necessary for future iterations in open seawater.

Over the past 2 years, the 92d has worked closely with Navy Seabees on the reconnaissance, scope of work, project timeline, technical surveying, and execution of different missions at locations ranging from the Savannah River, Norfolk, Virginia, to Gulfport, Mississippi. The 554th and 526th ECCs completed port demolition, reconstruction, construction of entry control point security positions, and timber pier construction across these locations. The primary execution cost is that of contracting for crane support to load equipment onto barges following each mission set.

Plans to put an IRB in seawater and continue testing the limits of Army equipment are in process for future operations. As the U.S. Army Corps of Engineers continues to develop solutions to this joint engineering problem set, doctrine, training, and technology must be developed. As we prepare for contingency operations, PDR is paramount to

getting troops, equipment, and supplies to forward-deployed locations in strategic military operations worldwide. Together, the U.S. Army and Navy have the capacity to complete this mission set under multidomain conditions, which is why we say, “*Essayons!*” Let us try!



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