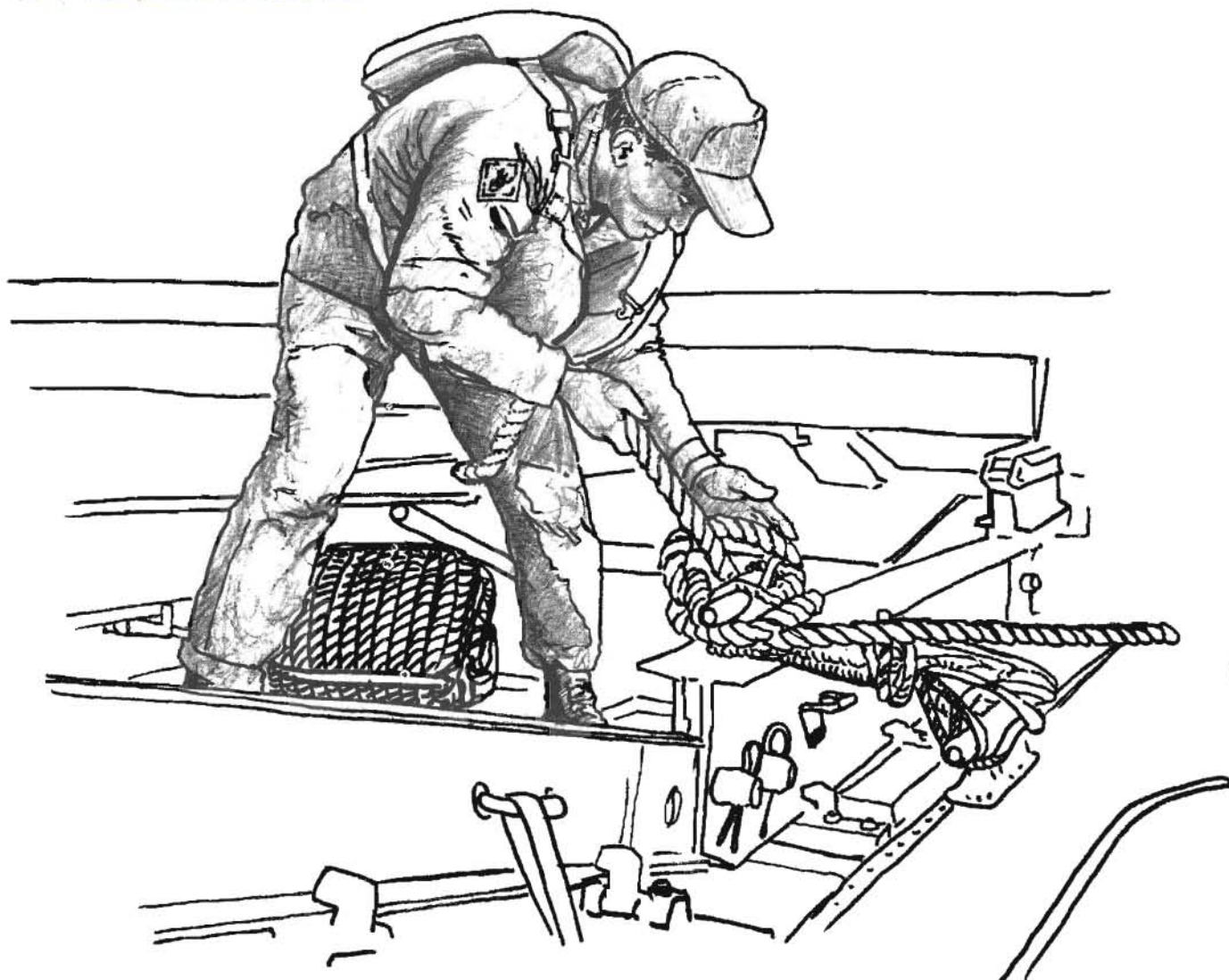


RIVER CROSSING

CPT Benjamin F. Heil, Jr.



It is six o'clock in the morning of the second Sunday in September. You are on the Rhine River near Leeheim, West Germany where during World War II, General Patton crossed his Third Army to continue its advance into the heartland of Germany. The 547th Engineer Battalion (Combat) is commencing construction of an eleven hundred and eighty-five foot class sixty floating bridge on the shore opposite that used by General Patton. The "Bridge Builders" have prepared for this day through extensive training and are set to challenge the modern-day record for closure. The week's training period immediately preceeding the closure

attempt has resulted in many corrections and innovations towards reducing construction time. Bridge erection boat control has been determined to be the largest contributing factor to timely closure. A new method of boat control has been selected for use by the commander and staff. The 547th Engineer Battalion is prepared to prove or disprove the concept that the use of a central boat control for all bridge erection boats on a major river crossing operation is effective, efficient, and time saving.

The boat control organization has been extracted from the normal assets of the supporting

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and supported units with little, if any, detraction from their ability to accomplish assigned tasks. The headquarters company commander has been designated as the boat commander and has selected a location for his control headquarters that affords him an unobstructed view of two-thirds of the entire construction site to include the complete centerline. Communication nets and personnel have been designated for the boat control element's use. The boat commander has a direct radio link with the construction commander, the battalion operations officer who is located in the tactical operations center. Additionally each boat crew can communicate with the control element or any other boat crew through a separate net. Bridge erection boats have been allocated and will be utilized according to normal tasking. Each of the six construction sites has a single construction boat. Six two-boat teams have been allocated to provide raft delivery. Additional boats have been allocated for centerline, safety, and the commander. None of the assignments to the boat control organization has depreciated the ability of the other construction elements.

The central boat control team concept provides a strong, responsive tool for the construction commander. All of the boat and boat operator assets of the three participating float bridge companies have been pooled, thereby providing a complete team of boats and operators from a situation where there were boats with no operators and operators with no boats. Special teams of maintenance and heavy equipment personnel have been assembled and trained to man the raft delivery crews. In this manner the necessary final closure manpower has been provided without weakening the committed line company strength. All boats remaining uncommitted after the initial allocation have been formed into a reserve and located with the boat commander. This effective and efficient use of available resources detracts little from the operation and, when coupled with the reserve, provides the boat commander with all of the necessary assets to accomplish his mission.

The establishment of a central boat control has provided flexibility and a subsequent strong possibility of time reduction for the crossing operation. Breakdowns of critical boat assets are easily remedied by dispatching other boats from the

constituted reserve which is directly available to the boat commander. As six-float rafts are completed at the construction sites, the delivery teams can secure, remove, and dock the rafts away from the construction sites. This system precludes cluttering and congestion around the construction sites, thus facilitating movement and accordingly cutting construction time. Continuous final closure can be assured by proper allocation of available assets by the boat commander. No construction site personnel are required at centerline for raft marriage, thus freeing crews for actual construction work. No delivery teams are idled while waiting for completed rafts at designated construction sites since the boat commander can allocate specific crews to specific sites as rafts near completion. The raft delivery teams have the capability to dock rafts on the far shore prior to the raising of the highline. This insures a continuous and responsive flow of completed rafts at the appropriate time for effective centerline marriage. Centralized control under a strong boat commander facilitates construction and provides timely, responsive boat assets.

It is now 9:25 A.M. and the first vehicle starts to cross the bridge. The 547th Engineer Battalion has completed the bridge in a record three hours and twenty-five minutes, thus continuing its three year domination of Rhine River closure times for Europe. Additionally, the battalion has surpassed its best closure time by forty minutes.

The results are in and conclusive. The only major change between past and present bridging operations has been the use of a centralized boat control. The 547th Engineer Battalion has definitely proved that the use of a central boat control provides effective, flexible and responsive boat assets for major river crossing operations.

Captain Benjamin F. Heil, Jr., is a recent graduate of the Engineer Officer Advanced Course at Fort Belvoir, Virginia. He has commanded companies in Vietnam and West Germany. He participated in three Rhine River closures, the last during September 1973 when he served as the 547th Engineer Battalion Operations Officer. He is presently pursuing a Master of Science Degree in Civil Engineering at the University of California, Berkeley.