Army Combat Engineer Units

This is an assessment of the capability of combat engineer units to perform their secondary mission on the future battlefield: to fight as infantry when required. It critiques, updates and expands a 1983 Mission Area Analysis (MAA) conducted by the US Army Engineer School. As such, it requires that the reader have the original MAA available. The overall conclusion is that combat engineer units do have the capability to perform a limited infantry mission. This limited mission is identified by specific tasks. Since these same tasks can also be expected of units performing combat engineer tasks on the battlefield, unit proficiency is critical. This overall conclusion is further refined by addressing the question: 'Where on the battlefield and what type engineer units should be used for the infantry mission?' Specific deficiencies in doctrine, training, organization and materiel currently hindering the capability of combat engineer units to perform the infantry mission are identified. (Author).

These words may seem to have been written by an advance infantry unit or a combat brigade, carrying out an assault against entrenched enemy troops. Instead, this hair-raising narrative comes from the diary of “B” Company of the 1303rd Engineer General Service Regiment, a “non-combat” unit attached to Patton’s Third Army during his epic pursuit of the retreating German forces across France during August, 1944. Though the 1303rd (called “the thirteen-third” by its soldiers) was supposed to perform its duties outside the zone of armed conflict, these men found themselves acting as the southern flank of Patton’s rapid advance. More than once, they had to re-build bridges the Germans had hastily destroyed in order to permit the continued advance of American troops—often doing so under enemy fire. Twice they were called upon to deploy as infantry in holding back German attacks. Careful editing and annotation by military historian Joseph C. Fitzharris corrects occasional lapses in the diary, clarifies references, and provides important context for following the movements and understanding the importance of Company B, the 1303rd, and its sister regiments. Patton’s Fighting Bridge Builders rewards its readers with a new understanding of both the messiness and the bravery of the Second World War.

At its peak in World War II, the United States Army contained over 700 engineer battalions, along with numerous independent brigades and regiments. The specialized soldiers of the Engineers were tasked with a wide variety of crucially important tasks including river bridging, camouflage, airfield construction, and water and petroleum supply. However, despite their important support roles, the engineers were often employed on the front lines fighting beside the general infantry in the desperate battles of the European theatre. This book covers the role of these soldiers, from their recruitment and training, through their various support missions and combat experiences, forming an account of what it was truly like to be a combat engineer in World War II.

NOTE: NO FURTHER DISCOUNT FOR THIS PRINTED PRODUCT- OVERSTOCK SALE -- Significantly reduced list price Engineers at War describes the role of military engineers, especially the U.S. Army Corps of Engineers, in the Vietnam War. It is a story of the engineers' battle against an elusive and determined enemy in one of the harshest underdeveloped regions of the world. Despite these challenges, engineer soldiers successfully carried out their combat and construction missions. The building effort in South Vietnam allowed the United States to deploy and operate a modern 500,000-man force in a far-off region. Although the engineers faced huge construction tasks, they were always ready to support the combat troops. They built ports and depots, carved airfields and airstrips out of jungle and mountain plateaus, repaired roads and bridges, and constructed bases. Because of these efforts, ground combat troops with their supporting engineers were able to fight the enemy from well-established bases. Although most of the construction was temporary, more durable facilities, such as airfields, port and depot complexes, headquarters buildings, communications facilities, and an improved highway system, were intended to serve as economic assets for South Vietnam. This volume covers how the engineers grew from a few advisory detachments to a force of more than 10 percent of the Army troops serving in South Vietnam. The 35th Engineer Group began arriving in large numbers in June 1965 to begin transforming Cam Ranh Bay into a major port, airfield, and depot complex. Within a few years, the Army engineers had expanded to a command, two brigades, six groups, twenty-eight construction and combat battalions, and many smaller units. Other products produced by the U.S. Army, Center of Military History can be found here: https://bookstore.gpo.gov/agency/1061

This thesis focuses on a construction unit in the United States Army, the Engineer Battalion (Combat) (Heavy). The Engineer Battalion (Combat) (Heavy) is the organization providing the U.S. Army the bulk of its heavy construction capability. The author examines the organization and capabilities of the battalion and determines if the U.S. Army should make changes to the battalion organizational structure to make it a more effective combat multiplier for full spectrum operations in the 21st century. The concept of modularity is defined from doctrinal sources and an assessment is made to determine if the battalion configurations affords the flexibility required to achieve this. There is a tendency to look to civilian models, which generally have functionalized companies, when recommending changes to military construction organizations. This monograph examines the differences between operating environments of civilian construction firms and military construction units and assesses how this might impact the organizational design of a U.S. Army troop construction organization. The author briefly covers the history, employment and reasoning for the present organization of the battalion. Case studies of the use of combat heavy engineer battalions in Operations Desert Shield/Desert Storm (1990-1991), and operations in Bosnia (1995-2000) are examined to determine the battalion's overall effectiveness in providing general engineering support to these operations. These case studies provides a basis for examining the use of the battalions in Major Theater War (MTW) operations of short duration in a relatively mature theater, and Stability and Support Operations (SASO) of long duration in an immature and battle damaged theater. Additionally, the present organizational structure of the troop heavy construction organizations in the U.S. Navy and the U.S. The author determined that overall, the present

Presents professional information designed to keep Army engineers informed of current and emerging developments within their areas of expertise for the purpose of enhancing their professional development. Articles cover engineer training, doctrine, operations, strategy, equipment, history, and other areas of interest to the engineering community.

George Patton is renowned for his daring tank thrusts and rapid movement, but the many rivers and obstacles his Third Army encountered crossing Europe required engineers spearheading his advance. A Combat Engineer with Patton’s Army is the untold story of Frank Lembo, one of Patton’s men who helped move the American command in the battle of Argentan in the Normandy Campaign, in the high-speed pursuit of the German Wehrmacht eastward across France, and in the brutal battles waged during the Battle of the Bulge and during the final combats along the borders of the collapsing Reich. Throughout his time in Europe Lembo maintained a running commentary of his experiences with Betty Craig, his fiancé and future wife. This extensive correspondence provides a unique eyewitness view of the life and work of a combat engineer under wartime conditions. As a squad (and later platoon) leader, Frank and his comrades cleared mines, conducted reconnaissance behind enemy lines, built bridges, and performed other tasks necessary to support the movement of the 317th, 318th, and 319th Infantry Regiments of the Blue Ridge Division—Patton’s workhorses, if not his glamour boys. Frank wrote about the deadly river crossings at the Moselle, Seille, and Sauer, all under enemy fire, and of the frustrating pauses when supplies were diverted. He participated in the mid-December sprint to Luxembourg and the relief provided at Bastogne during the Bulge, the liberation of concentration camps once Third Army had charged into Germany, and of their occupation duty in Bavaria. Frank’s letters go beyond his direct combat experiences to include the camaraderie among the GIs, living conditions, weather, and the hijinks that helped keep the constant threat of death at bay. His letters also worked to reassure Betty with hopeful dreams for their future together. Including dozens of previously unpublished photographs, A Combat Engineer with Patton’s Army: The Fight Across Europe with the 80th “Blue Ridge” Division in World War II offers the rare perspective of what day-to-day warfare at the ground-level looked like in the European Theater through the eyes of one

of the men spearheading the advance.
Army Doctrine Reference Publication (ADRP) 3-0, Unified Land Operations, is the first ADRP released under Doctrine 2015. ADRP 3-0 expands on the foundations and tenets found in Army Doctrine Publication (ADP) 3-0. This ADRP expands on the doctrine of unified land operations found in ADP 3-0. The publication of ADP 3-0 shifted the Army's operational concept from full spectrum operations to unified land operations. The doctrine of unified land operations describes how the Army demonstrates its core competencies of combined arm maneuver and wide area security through decisive action. The term decisive action replaces the term full spectrum operations as the concept of continuous, simultaneous offense, defense, stability, or defense support of civil authorities. Defense support of civil authorities replaces civil support as a task under decisive action. ADRP 3-0 expands the discussion of the foundations and tenets of unified land operations, as well as the operational framework found in ADP 3-0. Additional changes in ADRP 3-0 from the now obsolete 2011 FM 3-0, Change 1, includes a discussion of the range of military operations replacing the spectrum of conflict as well as a discussion of information collection replacing intelligence, reconnaissance, and surveillance (known as ISR). These changes in ADRP 3-0 now better align Army doctrine with the joint discussion of the principles of joint operations. ADRP 3-0 remains generally consistent with the now obsolete 2011 FM 3-0, Change 1, on key topics while adopting updated terminology and concepts as necessary. These topics include the discussion of an operational environment and the operational and mission variables, as well as the discussions of unified action, law of land warfare, and combat power. As in the now obsolete 2011, FM 3-0, Change 1, mission command remains both a philosophy of command and a warfighting function. Finally, ADRP 3-0 maintains combined arms as the application of arms that multiplies Army forces' effectiveness in all operations. ADRP 3-0 contains four chapters: Chapter 1 shortens the discussion of the operational environment found on the now obsolete 2011 FM 3-0, Change 1, and emphasizes military operations. This chapter provides a framework of variables of an operational environment that shape their nature and affect outcomes. The chapter then discusses unified action and joint operations as well as land operations. Finally, this chapter discusses law of land warfare and combined arms. Chapter 2 introduces the Army's new operational concept of unified land operations. It discusses how commanders apply landpower as part of unified action to defeat the enemy on land and establish conditions that achieve the joint force commander's end state. Chapter 2 discusses how commanders demonstrate the Army's new core competencies of combined arms maneuver and wide area security conducted through decisive action. Chapter 3 discusses combat power and the warfighting functions used to generate combat power in support of unified land operations. As in the now obsolete 2011 FM 3-0, Change 1, chapter 3 discusses the eight elements of combat power that include the six warfighting functions with leadership and information. Lastly, it discusses how Army forces achieve combined arms through force tailoring, task organization, and mutual support. Chapter 4 discusses the elements of operational art and the meaning of operational art to Army forces. It elaborates on commanders and staffs applying the elements of operational art to understand, visualize, and describe how to establish conditions to achieve a desired end state. It discusses how operational art represents a creative approach to dealing with the direction of military forces and expresses an informed vision across the levels of war.
This “engrossing” (The Wall Street Journal) national bestseller and true “heartbreaking tale of tragedy and redemption” (Hampton Sides, bestselling author of Ghost Soldiers) reveals how a discovered diary—found during a brutal World War II battle—changed our war-torn society’s perceptions of Japan. May 1943. The Battle of Attu—called “The Forgotten Battle” by World War II veterans—was raging on the Aleutian island with an Arctic cold, impenetrable fog, and rocketing winds that combined to create some of the worst weather on Earth. Both American and Japanese forces tirelessly fought in a yearlong campaign, with both sides suffering thousands of casualties. Included in this number was a Japanese medic whose war diary would lead a Silver Star–winning American soldier to find solace for his own tortured soul. The doctor’s name was Paul Nobuo Tatsuguchi, a Hiroshima native who had graduated from college and medical school in California. He loved America, but was called to enlist in the Imperial Army of his native Japan. Heartsick, wary of war, yet devoted to Japan, Tatsuguchi performed his duties and kept a diary of events as they unfolded—never knowing that it would be found by an American soldier named Dick Laird. Laird, a hardy, resilient underground coal miner, enlisted in the US Army to escape the crushing poverty of his native Appalachia. In a devastating mountainside attack in Alaska, Laird was forced to make a fateful decision, one that saved him and his comrades, but haunted him for years. Tatsuguchi’s diary was later translated and distributed among US soldiers. It showed the common humanity on both sides of the battle. But it also ignited fierce controversy that is still debated today. After forty years, Laird was determined to return it to the family and find peace with Tatsuguchi’s daughter, Laura Tatsuguchi Davis. Pulitzer Prize–winning journalist Mark Obmascik “writes with tremendous grace about a forgotten part of our history, telling the same story from two opposing points of view—perhaps the only way warfare can truly be understood” (Helen Thorpe, author of Soldier Girls).
This work has been selected by scholars as being culturally important and is part of the knowledge base of civilization as we know it. This work is in the public domain in the United States of America, and possibly other nations. Within the United States, you may freely copy and distribute this work, as no entity (individual or corporate) has a copyright on the body of the work. Scholars believe, and we concur, that this work is important enough to be preserved, reproduced, and made generally available to the public. To ensure a quality reading experience, this work has been proofread and republished using a format that seamlessly blends the original graphical elements with text in an easy-to-read typeface. We appreciate your support of the preservation process, and thank you for being an important part of keeping this knowledge alive and relevant.
United States Army combat engineers were not properly trained to conduct their mission during World War II. Research of combat engineer training and operations during the interwar period and subsequently in the Pacific, North African, and European theaters revealed the extraordinary efforts required both to train new engineers and to develop selectees into capable combat engineer units. This research demonstrates that significant reductions to military personnel levels and readiness during the interwar period required a hasty fielding of forces in wartime that were not trained to previously established standards. Wartime engineer units consisted of soldiers who did not meet prerequisites for entry into the branch. These factors resulted in officers who were not prepared to lead combat engineer operations and soldiers who lacked basic engineering skills to efficiently conduct their missions. Shortfalls in selection and training often necessitated remedial training in the theaters of operation.
This study examines the role of U.S. Army Engineers fighting as infantry in AirLand Battle by analyzing the actions of the 1111th Engineer Combat Group during the Battle of the Bulge in Dec. 1944. By manning hasty defensive positions at Malmedy, Stavelot, and Trois Ponts, the 291st Engineers and C Company, 51st Engineers delayed the German advance long enough for 30th Infantry and 82d Airborne Divisions to reach the area and wrestle the initiative from Sixth Panzer Army. The defense of the Ourthe River line by elements of the 51st Engineers was instrumental in delaying 116th Panzer Division long enough for 3rd Armored and 84th Infantry Divisions to reach defensive positions in front of the Meuse River. Engineers were successful as infantry against mechanized forces for several reasons: 1) Infantry missions were limited in scope; 2) They were augmented with additional fire power; 3) They occupied good defensible terrain; 4) World War II engineer units received extensive combat training before deploying overseas. The Battle of the Bulge displays many of the characteristics of a Soviet attack on NATO. Like the Ardennes in Dec. 1944, NATO’s Central Front is held by units which are overextended, untested in combat, and locked into a rigid forward defense with limited tactical reserves and no operational reserves. Under these circumstances, if Soviet forces do penetrate the Main Battle Area, engineer units are likely to be committed as infantry to block or contain the penetration. Like the Battle of the Bulge, we can expect a non-linear battlefield with fragmented, isolated units-a battlefield dominated by confusion and uncertainty. It is in exactly this type of situation that the actions of a few brave, determined men can make the difference between victory and defeat. By manning small,

isolated defensive positions, the men of the 1111th Engineer Group provided the extra measure of combat power that tipped the scales of victory in favor of the Allies in Dec. 1944.

Engineers have the mission to provide combat support to the United States Army maneuver forces. These missions fall into the five categories of mobility, countermobility, survivability, sustainment engineering and topography. In these areas, the engineers in support must focus their assets on the needs of the maneuver commander. To maximize the effectiveness of the engineer force structure, engineer units have historically been augmented with equipment to help accomplish their missions. In some cases, engineer equipment scheduled to be placed in the Air Assault Engineer Battalion is too heavy. Future force structure documents authorize heavier equipment which is not needed. This study reviews the requirement for equipment, the availability of equipment and some alternatives. It also suggests the direction the United States Army may wish to follow to procure lighter engineer equipment, not only for the Air Assault Division, but for Airborne and Light Infantry Divisions as well. Keywords: Army aviation.

In what quickly came to be called the Battle of the Bulge, the 291st Engineer Combat Battalion found itself directly in the path of the German spearhead. With heart-stopping suspense, Colonel David Pergrin describes one of the European theater's critical delaying actions as his unit destroyed bridges, planted mines, and defended roadblocks in the face of oncoming tank columns. Here, in gritty detail, is the story of how ""those damned Engineers"" ruined Hitler's winter offensive, and how the 291st, with a reputation almost as big as its accomplishments, went on to build a 1100-foot pontoon bridge across the Rhine at Remagen in 32 hours-in the face of fierce opposition and near-impossible odds. Pergrin follows the battalion from its formation and training through the campaigns in France, Belgium, and Germany, making us witness the genuine heroics, skill, and spirit that lifted the 291st to the realm of legend.

The world-wide operations of the U.S. Army in World War II involved an enormous amount of construction and the performance on a comparable scale of many other missions by the Corps of Engineers. This is the first of four volumes that will describe the participation of the Engineers in the war and the contribution they made toward winning it. Better known to the public in peacetime for its civil works, the Corps by the time of Pearl Harbor had turned almost its full attention to military duties. At home the Engineers took over all military construction, and prepared hundreds of thousands of Engineer troops for a variety of tasks overseas. These tasks included not only construction but also a number of other duties more or less related to engineering both in rear areas and in the midst of battle. In performing these duties in World War II the Army Engineers gained a proud record in combat as well as in service. This first volume tells how the Corps organized and planned and prepared for its tasks, and in particular how it trained its troops and obtained its equipment. The volumes still to be published will describe the huge program of military construction in the United States, and Engineer operations overseas in the European and Pacific areas. One of the objectives of the technical service volumes of the Army's World War II series is to capture the point of view of the service concerned. In doing so the authors of the present history, by thorough research and diligent solicitation of assistance, have also brought to their story a broad perspective, and they have told it with a felicity that should make their work a valuable guide to the Army as a whole, to the thoughtful citizen, and to the Engineers who served and who continue to serve the nation in war and in peace.

Nondivisional Engineer Combat UnitsUS Combat Engineer 1941–45Bloomsbury Publishing

The Department of the Army decided to re-structure the combat divisions into modular, brigade units in order to better address the difficulty inherent in fighting a long war on terrorism, while simultaneously providing combat units to OIF and OEF for SSTR operations. These new modular combat units are based on predominantly infantry and armor capabilities and have resulted in a large divestiture of engineering units and capabilities. However, the Army's reduction in its premier re-construction capability lies in stark contrast to the US Department of Defense (DoD) policy directive 30000.05 of November 2005, stipulating for all services to address SSTR as a decisive operation commensurate with the resourcing given other service-specific combat operations. A better solution for the Army could be to invest in more engineer capability as the centerpiece of its new modular BCTs. This seems more logical to produce flexible, capable forces rather than divesting the most relevant and flexible capability in the Army inventory: military engineering. This monograph will address the Army's challenge of implementing SSTR as a decisive operation as part of a main attempt to determine a method to "operationalize" a more engineer-centric concept. The BCT needs some capacity to produce longer term progress from the transient tactical victory of killing and capturing the enemy, while still maintaining its ability to conduct core missions of Offense, Defense, and SRO, . As part of a search for viable capability design, the monograph will conduct a short survey of historical examples of the combat and construction capabilities of some venerable engineer formations. This survey will focus on engineers as the center-piece for current and future full spectrum operations. 1940's and 1960's era engineer organization showed a clear ability to fight as well as build, enabling a robust capability for Full Spectrum success. What's more, in the manpower constrained environment of modern deployments, the historically multi-purpose engineer units helped commanders meet their plethora of infantry tasks and still maintained good capacity for combat engineering and construction. Several solutions to the full-spectrum force structure problem are addressed in the monograph, with the Maneuver Enhancement (ME) "BCT" concept appearing most promising. The ME BCT has proven to be a viable option, having just returned from duty in Iraq, and has now fully implemented at Fort Lewis, WA. With continued study and development of doctrine and promising training programs, the ME BCT will meet its challenge of training and leader development. If the National Security Strategy is correct about the most common form of future warfare being full-spectrum combat, then the ME BCT has the potential to be the most useful BCT organization in the conflicts to come.

ATP 3-34.81 provides techniques for the performance of tactical and technical engineer reconnaissance in support of military activities that are conducted across the full range of military operations. This publication supports doctrine found in ADP 3-0, FM 3-34, ADRP 5-0, and ADRP 6-0. Although primarily oriented on the brigade combat team (BCT)/regimental combat team (RCT) based Marine air-ground task force (MAGTF) and below, the principal audience for ATP 3-34.81 is all members of the profession of arms. Commanders and staffs of Army and Marine Corps headquarters serving as joint task force or multinational headquarters should also refer to applicable joint or multinational doctrine concerning the range of military operations and joint or multinational

forces. Trainers and educators throughout the Army and Marine Corps will also use this publication. The three engineer disciplines are combat (with the capabilities and activities of mobility, countermobility, and survivability [M/CM/S]), general, and geospatial engineering. These disciplines include significant reconnaissance capabilities. The three engineer disciplines include extensive discussion on integrating the planning for, and conduct of, engineer reconnaissance support within the tactical operations of the combined arms team. This publication discusses the capability resident within combat engineer units to form and employ engineer reconnaissance teams (ERTs). It also describes the capability resident within general engineer elements to form and employ ERTs, augment combat engineer ERTs, or provide assessment and survey teams. Finally, geospatial engineering enables reconnaissance and may play a large role, especially during the planning process. Engineer reconnaissance, like chemical, biological, radiological, and nuclear (CBRN) and other technical applications, is not a form of reconnaissance. Engineer reconnaissance is a focused application of special or unique capabilities supporting reconnaissance, and it is applicable to all forms of reconnaissance. The engineer disciplines provide reconnaissance capabilities that vary in linkages to warfighting functions, degrees of technical expertise, and effort applied to the assigned mission and tasks. Engineer reconnaissance is directly linked to geospatial intelligence because combat and general engineer units use technical measuring or survey devices to confirm, correct, or update the accuracy of available geospatial information. After analysis and comparison against other intelligence collections, this updated geospatial information becomes intelligence, which feeds the commander's decisionmaking process. Finally, this publication is written with the acknowledgement that the operational environment is more variable now. Engineers must be prepared to go into any operational environment and perform a full range of reconnaissance tasks in support of the maneuver commander while dealing with a wide range of threats and other influences. It builds on the collective knowledge and experience gained through nearly a dozen years of sustained military operations and exercises. It is rooted in time-tested principles and fundamentals, while accommodating new technologies and diverse threats to national security. This publication consists of five chapters and six appendixes that discuss the integration of engineer reconnaissance within the operational planning, execution, and assessment process that is presented in ADRP 5-0, ADRP 6-0, and MCWP 5-1.

This United States Army field manual, Army Techniques Publication ATP 3-34.22 Engineer Operations - Brigade Combat Team and Below April 2021, provides a doctrinal foundation for the conduct of engineer operations in support of unified land operations, focused on tactical maneuvers at the brigade combat team (BCT) level and below. The engineer organizations organic to the BCT are optimized to perform combat engineering tasks (primarily mobility with limited capabilities in countermobility and survivability), with geospatial engineering teamsproviding organic capability. Additional engineering support (combat and general) comes from engineer organizations that are task-organized to the BCT or that provide support from echelons above brigade (EAB) organizations. This manual is aligned with current BCT doctrine (see FM 3-96) and describes engineer support for the armored brigade combat team (ABCT), infantry brigade combat team (IBCT), and Stryker brigade combat team (SBCT). Although the security force assistance BCT and its respective engineer battalions are not addressed in detail, the basic principles of this manual also apply to those organizations. The principal audience for ATP 3-34.22 consists of commanders, officers, noncommissioned officers (NCOs), and staff at the BCT level and below as well as EAB units that support BCTs. ATP 3-34.22 is a primary manual for instructional purposes within the United States Army Engineer School and assists other Army branch schools in teaching the integration of engineer capabilities into Army operations. ATP 3-34.22 applies to the Active Army, Army National Guard/Army National Guard of the United States and United States Army Reserve unless otherwise stated.