

ENGINEER DOCTRINE UPDATE

U.S. Army Maneuver Support Center of Excellence Training and Doctrine Development Department Doctrine Division, Engineer Branch

Publications Currently Under Revision

Publication Number	Title	Date	Description (and Current Status)
FM 3-34	<i>Engineer Operations</i>	Apr 09	This is the engineer keystone manual. It encompasses all engineer doctrine; integrates the three engineer functions of combat, general, and geospatial engineering; and addresses engineer operations across the entire spectrum of operations. Status: Revising manual to incorporate the Engineer Framework. Expect the manual to be published 2QFY11.
Organizational Manuals			
ATTP 3-34.22 (FM 3-34.22) (FM 3-34.221) (FM 5-71-2) (FM 5-71-3) (FM 5-7-30)	<i>Engineer Operations –Brigade Combat Team and Below</i>	Pending Feb 09 (Jan 05) (Jun 96) (Oct 95) (Dec 94)	This new manual encompasses engineer operations in support of brigade combat teams (BCTs) (heavy, infantry, and Stryker—the armored cavalry regiment) and their primary subordinate units (infantry battalion, Stryker battalion, combined arms battalion, and the reconnaissance squadron). This manual will supersede FM 3-34.221, FM 5-7-30, FM 5-71-2, and FM 5-71-3. Status: To become an Army Tactics, Techniques, and Procedures (ATTP) manual 3QFY10.
ATTP 3-34.23 (FM 3-34.23) (FM 5-116) (FM 5-100-15) (FM 5-71-100)	<i>Engineer Operations –Echelons Above Brigade Combat Team</i>	Pending Pending (Feb 99) (Jun 95) (Apr 93)	This is a new manual that will encompass engineer operations in support of all engineer operations above the BCTs (division, corps, and theater). The intent is to consolidate and revise three engineer FMs that provide doctrinal guidance for the entire spectrum of engineer operations supporting echelons above the BCT level. This manual will supersede FM 5-71-100, FM 5-100-15 and FM 5-116. Status: Expect the manual to be published as an ATTP manual 3QFY10.
Combat Engineering			
FM 3-90.4 (FM 3-34.2)	<i>Combined Arms Mobility Operations</i>	Aug 00	This is a full revision, to include the renaming and renumbering of FM 3-34.2, <i>Combined Arms Breaching Operations</i> . Changes in the force structure have required adjustment of the tactics, techniques, and procedures (TTP) associated with breaching and clearance operations. The Marine Corps is dual-designated on this manual, which will replace their Marine Corps Warfighting Publication (MCWP) 3-19.3, <i>Marine Air-Ground Task Force (MAGTF) Breaching Operations</i> . Status: To be published 2QFY11.
FM 3-90.8 (FM 5-102) (FM 90-7)	<i>Combined Arms Obstacle Integration</i>	Sep 94; Mar 85	This revised manual will contain the basic fundamentals associated with countermobility operations and will incorporate aspects of the contemporary operating environment (COE). The Marine Corps plans to adopt this manual also. Status: On hold for release of FM 3-90, Tactics.
General Engineering			
TM 3-34.48 1/2 (FM 3-34.410 Volumes I & II) (FM 5-430-00-1 & 5-430-00-2)	<i>Design of Theater of Operations Roads, Airfields, and Helipads</i>	Pending Aug 94; Sep 94	This manual will serve as a reference for engineer planners in support of joint and theater operations in the design of roads, airfields, and helipads. This manual is currently dual-designated with the Air Force. The Air Force (as well as the Navy and Marine Corps) plans to adopt the new manual also. Status: Expect the manual to be published 4QFY10.
TM 3-34.41	<i>Construction Planning and Estimating</i>	NEW	This new manual is being produced by the Navy, in coordination with the Army and Air Force. The manual will provide the TTP and planning factors for conducting construction planning at the crew leader level. The manual will also provide useful expeditionary construction planning factors for use by planners at all levels. Status: Expect the manual to be published 2QFY11.

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General Engineering (continued)			
TM 3-34.43 (FM 3-34.451) (FM 5-472)	<i>Materials Testing</i>	Pending Dec 92	This manual will provide technical information for obtaining samples and performing engineering tests and calculations on soils, bituminous paving mixtures, and concrete. For use in military construction. The test procedures and terminology will conform to the latest methods and specifications of the American Society for Testing and Materials (ASTM), the American Concrete Institute (ACI), and the Portland Cement Association (PCA), with alternate field testing methods and sampling techniques when complete lab facilities are unavailable or impractical to use. The Marine Corps and Air Force plan to adopt this manual as well. Status: Expect the manual to be published 3QFY10.
FM 3-34.65 1/2 (FM 3-34.465) (FM 3-34.465 & FM 3-34.468)	<i>Quarry Operations</i>	Pending Mar 05; Dec 03 (Apr 94)	This manual outlines the methods and procedures used in the exploration for and operation of pits and quarries. It provides information on equipment required for operating pits and quarries and for supplying crushed mineral products, but does not cover the operation of the stated types of equipment. This is a collaborative effort with the Navy and Air Force and includes the newest technologies and current practices. Status: Preparing Volume II. Initial draft staffing of both volumes 3QFY10.
TM 3-34.49 FM 3-34.469 (FM 5-484)	<i>Multi-Service Well Drilling Operations</i>	Pending Mar 94	This manual is a guide for planning, designing, and drilling wells. It focuses on techniques and procedures for installing wells and includes expedient methods for digging shallow water wells, such as hand-dug wells. This collaborative effort with the Navy, Air Force, and Marine Corps includes the newest technologies, current practices, and revised formulas. Status: Expect the manual to be published 3QFY10.
FM 3-34.5 (FM 3-100.4)	<i>Environmental Considerations</i>	Pending Jun 00	This manual provides environmental protection procedures during all types of operations. It states the purposes of military environmental protection, a description of legal requirements, and a summary of current military programs. It also describes how to apply risk management methods to identify actions that may harm the environment and appropriate steps to prevent or mitigate damage. Status: Estimated date for posting to Army Knowledge Online (AKO) is 3QFY10.
TM 3-34.56	<i>Waste Management</i>	NEW	This manual addresses issues not currently integrated into FM 3-34.5, <i>Environmental Considerations</i> . The manual will address the role of waste management in support of deployed forces, as well as the integration of waste management throughout the operations process, including its critical linkage to the composite risk management process. Status: Expect the manual to be published 4QFY10.
Geospatial Engineering			
ATTP 3-34.80 (FM 3-34.600) (FM 3-34.230)	<i>Geospatial Engineering</i>	Pending 3 Aug 00	This full revision of FM 3-34.230, <i>Geospatial Operations</i> , will incorporate changes as a result of FM 3-34, <i>Engineer Operations</i> , and FM 3-0, <i>Operations</i> . Geospatial engineering consists of engineer capabilities and activities that contribute to a clear understanding of the physical environment by providing geospatial information and service to commanders and staffs. Status: Estimated date for posting to AKO is 3QFY10.
<p>NOTES: Current engineer publications can be accessed and downloaded in electronic format from the Reimer Digital Library at http://www.adtdl.army.mil or the MSKN website at https://www.us.army.mil/suite/page/500629. The manuals discussed in this article are currently under development. Drafts may be obtained during the staffing process or by contacting the engineer doctrine branch at: Commercial 573-563-0003, DSN 676-0003, or douglas.merrill@us.army.mil. The development status of these manuals was current as of 10 February 2010.</p>			