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Combined Arms Obstacle Integration

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Preface

Field Manual (FM) 90-7 is intended for the combined arms commander and staff. It encompasses doctrine established in *FMs 5-100, 6-20 series, 71-100, 100-5, and 100-7*. The doctrine presented in the following chapters seeks to develop the full potential of obstacles as a component of combat power. Each chapter contains tactics, techniques, and procedures (TTP) that take the doctrinal foundation and provide the “How To” connection.

This manual initially defines and establishes the principles for obstacle operations then applies them at echelons from corps to company team, concentrating on essential TTPs. *Chapter 2* provides the key obstacle terms that will be used throughout the manual. *Chapter 3* covers obstacle integration theory. *Chapter 4* covers obstacle planning from corps through brigade level. *Chapter 5* covers obstacle planning from task force (TF) through company team level. *Chapters 4 and 5* build on the foundations in *Chapters 1 through 3* and establish echelon-specific TTPs. *Chapters 6 through 8* provide considerations for specific types of obstacles.

Three appendixes provide the additional tools that facilitate successful planning and execution. *Appendix A* provides information on individual obstacles. *Appendix B* addresses the critical activities in reporting, recording, and tracking. Finally, *Appendix C* describes obstacle resourcing and supply.

Throughout this manual, the terms brigade, TF, and company team are used to refer to all friendly brigade-, battalion-, and company-size units (to include cavalry units) unless otherwise noted. The terms regiment, battalion, and company are used only when referring to enemy units unless otherwise noted.

This publication implements international *Standardization Agreement (STANAG) 2017*.

The proponent for this publication is Headquarters (HQ), United States (US) Army Training and Doctrine Command (TRADOC). Submit comments and recommendations on Department of the Army (DA) Form 2028 and forward it to: Commandant, US Army Engineer School, ATTN: ATSE-T-PD-P, Fort Leonard Wood, MO 65473-6500.

Unless otherwise stated, masculine nouns and pronouns do not refer exclusively to men.

Chapter 1

Obstacles and the Combined Arms Team

Obstacles are any characteristics of the terrain that impede the mobility of a force. Some obstacles, such as mountains, rivers, railway embankments, and urban areas, exist before the onset of military operations. Military forces create other obstacles to support their operations. Commanders use these obstacles to support their scheme of maneuver. When integrated with maneuver and fires, obstacles can create a decisive battlefield effect. Obstacle plans must mature as the commanders' plans mature.

HISTORICAL USE OF OBSTACLES

History shows that obstacles rarely have a significant effect on the enemy if units do not integrate them with friendly fires. The following historical vignette from World War II is an example of obstacles that were not integrated with fires.

In February 1942, an engineer lieutenant with two noncommissioned officers (NCOs) received orders to supervise the installation of a minefield to support the defense of an American infantry battalion near the Kasserine Pass in Tunisia. The lieutenant set off at 1930 hours with a truckload of mines, to link up with one of the infantry battalion's

companies. The company was to provide him with a work detail to install the mines and, more importantly, provide the location of the minefield.

At 2330 hours, he arrived at the infantry company command post (CP), but no one at the CP could tell him the whereabouts of the work detail. Nor could anyone tell him where the minefield should go or what role the minefield was to play in the defense. The company executive officer (XO) told the engineer to go down the road in the direction of the enemy. He assured the lieutenant that somewhere along the road he would meet someone who undoubtedly was waiting for him.

At 0130 hours, the lieutenant returned to the CP after searching along the road and finding no one. He insisted on speaking with the infantry company commander who was sleeping. The infantry company commander told the lieutenant that he would provide him with a forty-man detail, led by an infantry lieutenant who would show the engineer where to install the minefield.

At 0330 hours, the infantry lieutenant showed up with a twelve-man detail. Apologizing for the small number of men, the infantry lieutenant also told the engineer