

***FM 3-50**

Field Manual
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S m o k e O p e r a t i o n s

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Preface

Field Manual 3-50 provides US Army units with doctrine, tactics, techniques, and procedures to use smoke and obscurants to attack and defeat specific enemy targets, sensors, target acquisition systems, weapon guidance systems, and other enemy electro-optical devices. Also, it describes techniques to reduce friendly degradation in smoke.

The scope of this manual is smoke operations at the operational and tactical levels of war. The target audience is maneuver unit commanders and staff officers, particularly the G2/S2, G3/S3, FSO, and chemical officer at corps level and below. Most of the examples depict smoke support for brigade-level operations.

The focus is on synchronized smoke planning — smoke integrated into the commander's tactical plan,

sustained as necessary to defeat the enemy's electro-optical systems and create a "one-way mirror" — one which our forces can both see and shoot through to set the terms of battle.

Smoke is a double-edged sword. Smoke conceals troop movements, slows attacking forces, disrupts command and control, and reduces the vulnerability of critical assets for both friendly and Threat forces. Combat operations in World War II and the Korean War demonstrated that the proper use of smoke enhances mission success and force survivability. In recent times, US forces have reinforced the positive benefits of large-area smoke use at the combat training centers at Fort Irwin, California; Fort Chaffee, Arkansas; and Hohenfels, Federal Republic of Germany.

In battle, the side that employs

smoke correctly and is experienced in limited visibility operations will be more agile and respond faster to changing situations.

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Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

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Chapter 1

Introduction

Common sense tells us what can be seen can be hit and killed on the battlefield. The US Army uses smoke and obscurants to attack Threat reconnaissance, surveillance,

and target acquisition (RSTA) efforts. It also uses smoke to protect the force and to support tactical deception operations. By combining obscuration with maneuver you can

protect your force and deny the Threat the ability to acquire and engage it.

Historical Perspective

Armies have used smoke to confuse and deceive their enemies throughout history. We can find indications of smoke operations from as early as 2000 B.C. when the burning of damp straw was a common way to smoke enemy positions.

The War Department proposed the use of smoke to President Lincoln during the War Between the States. The idea was not taken seriously at the time and smoke was used sparingly. Documentation of the period reflected in the Cavalry Journal historical archives suggests that "...a little smoke, judiciously laid down, could have changed the entire course of history. Had the South used smoke, Federal forces may not have been able to stop Pickett's charge at Gettysburg even though the Federal force was greatly superior...."

The use of large-area smoke increased drastically during World War II. The British used smoke to effectively screen harbors, factories, and large cities in the United Kingdom from the Luftwaffe's relentless bombing. In 1943, US forces used smoke to protect the supply facilities and invasion fleet at Bizerte Harbor in North Africa from attacking German aircraft. The smoke blanket placed over this area by smoke generator units

resulted in over 3,000 bombs falling harmlessly in and around the area.

The use of smoke and other man-made obscurants can give a commander an edge if applied properly. Natural obscurants can also be used to friendly advantage. The actions of Combat Command A (CCA), 4th Armored Division, during the Lorraine Campaign, in September 1944, demonstrated the use of fog as a combat multiplier.

On 13 September 1944, CCA forced a crossing of the Moselle River north of the heavily defended city of Nancy. On 14 September, CCA was ordered to bypass Chateau-Salins and exploit the weakness to the south. By 1900 hours, CCA began to draw into a perimeter defense around the town of Arracourt. This allowed the Germans to strengthen their position around Chateau-Salins and assemble forces for a major counterattack against the XII Corps right flank. The Fifth Panzer Army moved north, striking at CCA's exposed position around Arracourt. The ensuing battle was one of the largest armored engagements fought on the Western Front.

On the morning of 19 September, a heavy fog concealed the German movement, giving them tactical surprise and protection from Allied

aircraft. Elements of the 133rd Panzer Brigade penetrated CCA's defenses. Two tank destroyer platoons and a medium tank company engaged the 133rd Panzer Brigade. The fog worked to the defender's (Allied forces) advantage, as the limited visibility negated the superior range of the German tank guns. As the fighting surged back and forth through the fog, CCA's tanks and tank destroyers used their mobility to outmaneuver and ambush the larger Panzers.

From 20 to 25 September, the Fifth Panzer Army directed the IIIrd Panzer Brigade and the IIth Panzer Division into a series of attacks against the Arracourt position. Each assault followed the pattern set on 19 September. The Panzers attacked under the cover of morning fog, only to be thwarted by CCA's mobile defense and driven off by armored counterattacks of company or battalion strength.

The defensive actions fought around Arracourt stalled the German offensive. The 4th Armored Division claimed 281 German tanks destroyed, 3,000 Germans killed, and another 3,000 taken prisoner in the fighting. For the German offensive, the ground fog represented a double-edged sword. It provided