
PART ONE BASICS OF CAMOUFLAGE

Chapter 1 Camouflage Concepts

Camouflage is the use of concealment and disguise to minimize the detection or identification of troops, weapons, equipment, and installations. It includes taking advantage of the immediate environment as well as using natural and artificial materials. One of the imperatives of AirLand Battle doctrine is to conserve friendly strength for decisive action. Such conservation is aided through sound operations security (OPSEC) and protection from attack. This includes all actions that make soldiers, equipment, and units difficult to locate. Camouflage is one such action.

1-1. Doctrinal Considerations. Using camouflage will help the commander in the following ways:

a. *Preventing Detection.* Camouflage degrades the effectiveness of enemy reconnaissance, surveillance, and target acquisition (RSTA) capabilities. Skilled observers and sophisticated sensors can be defeated by obscuring the telltale signs (signatures) by which units on the battlefield may be detected and identified. Preventing acquisition by threat observers will make it difficult for threat forces to determine friendly operational patterns, functions, and capabilities.

b. *Improving Survivability.* Camouflage, by reducing the enemy's ability to detect, identify, and engage US Army elements, enhances friendly survivability. Survivability encompasses all actions taken to conserve personnel, weapons, facilities, and supplies from the effects of enemy weapons and actions. Survivability includes physical measures such as fighting and protective positions; nuclear, biological, chemical (NBC) equipment; and armor. These actions include interrelated tactical measures such as dispersion, movement techniques, OPSEC, communications security (COMSEC), tactical missile defense, smoke operations, deception, and camouflage and concealment. Improved survivability from camouflage is not restricted to combat operations. There is also benefit in denying the enemy the collection of information about friendly forces during peacetime.

c. *Improving Deception Capabilities.* Camouflage also enhances the effectiveness of deception in military operations. Camouflage and deception help mask the real intent of primary combat operations and aid in achieving surprise. Camouflage measures can delay effective enemy reaction by disguising information about friendly intentions, capabilities, objectives, and locations of vulnerable units and facilities. Conversely, intentionally poor camouflage can project misleading information about friendly operations. Successful deception depends on stringent OPSEC, which

includes effective camouflage. For more detailed information on deception operations, see FM 90-2.

d. *Integrating Smoke Operations.* Smoke and obscurants are effective tools for enhancing other camouflage techniques. Smoke and obscurants can change the dynamics of the battle by blocking or degrading the spectral bands used by Threat target-acquisition and weapons systems. Near- and midterm developments of smoke and obscurants will include the capability to degrade nonvisual detection systems. FM 3-50 contains detailed information on planning smoke operations.

1-2. Responsibilities. Each soldier and commander is responsible for camouflage. Every soldier and unit must become proficient in camouflage techniques; there is no unit specifically assigned or dedicated to conducting camouflage operations.

a. *The Soldier.* The individual soldier is responsible for concealing himself and his equipment. Just as marksmanship enables soldiers to hit targets, camouflage enables them to avoid becoming targets.

b. *The Commander.* The commander is responsible for the camouflage of his unit. NCOs supervise well-disciplined soldiers in executing such camouflage. They use established standing operating procedures (SOPs) and battle drills to guide their efforts.

1-3. Camouflage Priorities.

a. *Recognizing Technological Impact.* Every soldier and military unit has an inherent mission of self-protection and should use all available means for camouflage. However, camouflage measures have become more complicated due to advancing technology. Commanders must recognize that advanced technologies have—

- Enhanced the performance of hostile reconnaissance and surveillance equipment.
- Increased the Threat's ability to use signatures for detecting friendly units.
- Reduced the time available to apply camouflage due to the increased speed at which units must perform nearly all aspects of battlefield operations.

b. *Determining Priorities.* When time, camouflage materiel, or other resources are insufficient to provide adequate support to all units, commanders must determine the priorities of camouflage operations. Considerations for establishing these priorities involve analyzing the mission, enemy, troops, terrain, and time available (METT-T). The following sets forth a METT-T analysis for determining camouflage priorities:

(1) **Mission.** The mission is always the first and most important consideration. Camouflage efforts must enhance the mission but not be so elaborate that they hinder the mission.

(2) **Enemy.** The enemy's RSTA capabilities will influence the type and amount of camouflage needed to support the unit's mission. Whenever possible, an intelligence analysis should include the types of RSTA equipment the enemy uses.

(3) **Terrain.** The terrain dictates what camouflage techniques and materials are necessary. Skillful use of the terrain's cover and concealment properties has a decisive significance in camouflage. Different terrain types (such as urban, mountain, forest, plains, desert, and arctic) require specific camouflage techniques.

(4) **Troops.** Friendly troops must be well-trained in camouflage techniques that apply to their mission, unit, and equipment. A change in environment or mission will often require the retraining of soldiers. Leaders must also consider the alertness of troops. Careless efforts at camouflage are ineffective and may disclose the unit's location. The analysis should address the relative detectability of friendly equipment, as well as the signatures that the unit normally transmits.

(5) **Time.** Time is often the critical factor. Elaborate camouflage may not be practical for the tactical situation. The type and amount of camouflage needed are determined by the time the unit will occupy the area, the amount of time available to camouflage, and the amount of time necessary to recamouflage the unit after it moves.

1-4. Training.

a. *Individual Training.* Camouflage training must take place as part of every field exercise. Soldiers must be aware that the threat can detect, identify, and acquire targets by using technologies well beyond the visual part of the electromagnetic spectrum. Each member of the unit must acquire and maintain specific camouflage skills. These include the ability to analyze and effectively use terrain; to properly select an individual site; and to hide, blend, disrupt, and disguise signatures by using both natural and artificial materials.

b. *Unit Training.* Unit camouflage training refines individual and leader skills, introduces the element of team coordination, and contributes to tactical realism. If camouflage is to help conserve friendly strength, it must be practiced with the highest degree of discipline. Camouflage; concealment; light, noise, and communications discipline; and signal security must be practiced and evaluated in an integrated mission training environment. Camouflage proficiency is developed through practice. Units must incorporate camouflage into their field SOPs that address the *who*, *what*, *where*, *when*, and *how* of camouflage. Appendix A provides additional guidance on integrating camouflage into unit field SOPs.

c. *Training Evaluation.* An evaluation of camouflage training should be as realistic as possible. Integrate unit training with evaluations to provide reinforcement and enhance training. The following techniques will enhance training evaluation:

- Have small-unit leaders evaluate their unit's camouflage efforts from the enemy's viewpoint. How a position looks from a few meters is probably of little importance. Could an approaching enemy detect and place aimed fire on the position? From what

distance could the enemy detect the position? Which camouflage principle was ignored that allowed detection?

- Whenever possible, use binoculars, night vision, or thermal devices to show units how they would look to an enemy.
- Use photographs or video tapes of positions as a method of self-evaluation.
- Incorporate ground-surveillance radar (GSR) teams in training whenever possible. Let troops know how the GSR works, then have them try to defeat it.
- Request aerial photography of your unit's positions. These photos will show how the position would look to enemy aerial reconnaissance.
- Use an opposing force (OPFOR) to make training more realistic. Supporting aviation, in an OPFOR role, can also help. Whenever possible, unit leaders should be allowed to debrief the OPFOR. They should ask what factors enabled the OPFOR to locate, identify, and engage the unit, and what the unit could have done to improve its concealment.

1-5. Fratricide. Warfare often causes losses resulting from erroneously conducted operations against friendly troops. Fratricide compels commanders to consider the effect camouflage and deception operations will have on the necessity of being recognized by friendly troops.

1-6. Material. US Army policy prescribes that camouflage aids be built into equipment and supplies as much as possible. Battle-dress uniforms (BDUs), camouflage paint, light-weight camouflage screen systems (LCSSs), and other camouflage equipment provide aid in achieving good camouflage. These aids, however, are effective only if properly used and integrated with natural camouflage. Camouflage aids should not interfere with the battlefield performance of the soldiers, equipment, and installations they conceal.