

**Field Manual
Number 44-8**

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COMBINED ARMS FOR AIR DEFENSE

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Preface

Air defense artillery units are a limited resource on the battlefield. Available ADA resources will be dedicated to the protection of assets deemed by commanders to be critical to the success of the tactical plan, leaving other assets without dedicated ADA coverage. All units with or without dedicated ADA support must contribute to their own defense against air attack. This manual is addressed to all unit commanders. It explains the air threat to units on the ground and places the threat in its proper perspective. It also explains how ground commanders can protect their units from air attack through the use of passive and active air defense measures.

This publication implements the following international standardization agreements:

STANAG	TITLE	EDITION
2014	Operation Orders, Warning, and Administrative/Logistics Orders	7
2019	Military Symbols for Land Based Systems—APP-6	3
2034	Land Forces Procedures for Allied Supply Transactions	4
2041	Operations Orders, Tables and Graphs for Road Movement	4
2047	Emergency Alarms of Hazard or Attack (NBC and Air Attack Only)	6
2079	Rear Air Security and Rear Area Damage Control	4
2150	NBC-NATO Standards of Proficiency for NBC Defence	5
2868	Land Force Tactical Doctrine—ATP-35(B)	5
3700	NATO Tactical Air Doctrine—ATP-33(B)	5
3736	Offensive Air Support Operations—ATP-27(B)	8
3805	Doctrine and Procedures for Airspace Control in Times of Crisis and War—ATP-40 (A)	4
3880	Counter Air Operations—ATP-42 (B) D	3
QSTAG		
509	Military Symbols	

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Unless this publication states otherwise, the masculine gender applies to both men and women.

INTRODUCTION

Force-projection operations doctrine reflects the shift towards stronger joint operations. Army operations have evolved into a variety of choices for a battlefield framework and a wider interservice arena, allowing for the increasing incidence of combined operations.

Army participation in air defense is no longer the sole responsibility of army air defense assets. Members of the combined arms team can use their organic firepower along with air defense assets to provide self-defense, suppress enemy air defenses, and provide maneuver force protection.

The table below outlines the Army's participation in air defense operations. It describes the assets of the combined arms team as well as the contributions of each member's organic weapons capabilities to air defense. Army units can use their organic firepower to destroy attacking aircraft and drive others away. Field Artillery, Infantry, Armor, and Aviation contribute to the air defense fight by engaging enemy aircraft in self-defense and by making attacks on enemy airfields and logistics assets that support their aviation units.

ARMY ELEMENTS	AIR DEFENSE CONTRIBUTIONS
AIR DEFENSE ARTILLERY: <ul style="list-style-type: none"> • THAAD System • Patriot System • SHORAD Systems: <ul style="list-style-type: none"> • Avenger • MANPAD System • BSFV Linebacker 	Maneuver force protection High-value asset protection Counter-RISTA
FIELD ARTILLERY: <ul style="list-style-type: none"> • Missiles • Cannons • Rockets 	Attack critical air assets FARP's Transporter-erector-launchers SEAD
ARMY AVIATION: <ul style="list-style-type: none"> • Helicopters 	Self-defense/AD on order Maneuver force protection SEAD
CHEMICAL: <ul style="list-style-type: none"> • Smoke Units 	Concealment Deception/denial
OTHER COMBINED ARMS: <ul style="list-style-type: none"> • Organic Weapons 	Self-defense Attack critical air assets SEAD
SPECIAL OPERATIONS FORCES: <ul style="list-style-type: none"> • Skilled Soldiers 	Provide surveillance, intelligence, and targeting Attack critical air assets

Chapter 1

Evaluate the Battlefield

This chapter describes how the unit uses the IPB process to assist in executing and integrating air defense into combat operations. This is especially true in special staff sections and units outside the combat arms. The particular needs of these elements require a slightly different focus in the application of the IPB process due to their mission requirements. At the very least, these products must be refined to meet the particular needs of staff or unit that will use them. Primarily, the S2 is responsible for IPB.

THE BATTLEFIELD ENVIRONMENT

1-1. In defining the battlefield environment, one must take into account the actual and possible limitations of the third dimension– the element of altitude. Some areas to consider are–

- Location of threat airfields and launching points.
- Range of aircraft and missiles.
- Physical constraints in the friendly AO.
- Buildings and other structures.
- Power lines and antennas.
- Hills, trees, and other natural barriers to movement and observation.
- Weather.

1-2. The overall structure of the battlefield, at the tactical level of war, consists of the area of interest, battlespace, the area of operations, and battlefield organization. This provides the commanders a way to associate their forces to the enemy in terms of time, space, and purpose.

AREA OF INTEREST

1-3. The area of interest is that area of concern to the commander. It is the geographic area and airspace above it from which information and intelligence are required to successfully conduct the commander's operation. This area also includes areas occupied by enemy forces who could jeopardize accomplishment of the mission.

BATTLESPACE

1-4. Battlespace is a physical volume that expands or contracts in relation to the ability to acquire and engage the enemy. It varies in width, depth, and height as the commander positions and moves assets over time. Battlespace is not assigned by a higher commander and can extend beyond the commander's area of operations.