

FM 3-04.300

Airfield and Flight Operations Procedures

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Headquarters, Department of the Army

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Airfield and Flight Operations Procedures

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Preface

Field manual (FM) 3-04.300 is designed to serve as a doctrinal guide focusing on the primary aspects of airfield procedures in full spectrum operations. While it contains guidelines for aviation unit commanders and aviators, the manual is intended primarily for use by airfield operations battalions (AOBs) and installation flight operations personnel. It is applicable to division, corps, Theater Aviation Command (TAC), Theater and Area Sustainment Commands, and the Army aviation community, including members of allied, coalition, and civil support forces. This publication applies to the Active Army, the Army National Guard (ARNG)/Army National Guard of the United States (ARNGUS), and the United States Army Reserve (USAR) unless otherwise stated.

This manual outlines the organization and services of the theater airfield operations groups (TAOGs), AOBs, aviation unit plans and operations staff, and installation airfield management operations. It explains personnel qualifications, duties, and responsibilities; it provides information on airfield design and security and support requirements when planning and operating an airfield within a theater of operations (TO) or during homeland security operations. Installation airfield management structure, responsibilities, services, safety, and National Airspace System (NAS) requirements are presented in part III of this manual. Appendix A details the numerous checklists necessary for adequate airfield assessment and the duties required for airfield opening. Appendix B discusses the characteristics of military aircraft. Appendix C addresses Army and Air Force airfield planning. Appendix D discusses letters and facility memorandums. Appendix E discusses emergency plans and procedures.

The proponent for this publication is the United States Army Training and Doctrine Command (TRADOC). Send comments and recommendations on Department of the Army (DA) Form 2028 (Recommended Changes to publications and Blank Forms) to Commander, U.S. Army Aviation Center of Excellence, ATTN: ATZQ-TDD-D, Fort Rucker, Alabama 36362-5263 or complete the Directorate of Training and Doctrine (DOTD) electronic change request form at <https://www.us.army.mil/suite/doc/7288766>. Comments may be e-mailed to the DOTD at av.doctrine@us.army.mil. Other doctrinal information can be found on the Internet at the Aviation Doctrine Branch homepage (<https://www.us.army.mil/suite/page/394729>), Army Knowledge Online (AKO) or by calling defense switched network (DSN) 558-3551 or (334) 255-3551.

The publication has been reviewed for operations security considerations.

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PART ONE

Airfield Considerations for Full Spectrum Operations

**Chapter 1
Fundamentals**

Successful employment of Army aviation is contingent upon establishing and maintaining airfields that enable the positioning of aviation assets within the range of ground forces. This task becomes more complicated when airfields are host to a variety of allied military, nongovernmental organizations (NGOs), and commercial air activities. Army aviation transformation provides an airfield management structure for theater Army airfields through the deployment of theater airfield operations groups (TAOGs) and airfield operations battalions (AOBs). These organizations are designed to efficiently support Army and joint, interagency, intergovernmental, and multinational aviation operations.

SECTION I – OPERATIONAL ENVIRONMENT

1-1. The operational environment is described as a composite of conditions, circumstances, and influences that affect the employment of forces and decisions of commanders. Each of these areas impacts how Army forces combine, sequence, and conduct military operations.

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ARMY AVIATION OPERATIONS

1-2. Army aviation combines reconnaissance, mobility, and firepower to provide battlefield leverage as an air maneuver and support force fully integrated into the combined arms team. Like ground combat systems, Army aviation requires airfields to conduct operations. How these airfields are managed enhances the speed, safety, sustainability, and survivability of aircraft and aircrews and ensures successful mission completion. Efficient management and thoughtful airfield design contributes to the timely response of Army aviation operations. Army aviation forward operating bases (FOBs) include, but are not limited to—

- Highway landing strips.
- Improved and unimproved austere airfields.
- Captured enemy airfields.
- Host and adjacent nation airfields.
- Airfields designated for homeland security operations.

1-3. Expansion of the battlefield at each echelon may be dependent on forward operating airfields. These airfields enable the commander to seize the initiative and influence operations at critical points within the area of operations (AO). Aviation, augmented by armed and unarmed unmanned aircraft systems (UAS), expands the ground commander's battle area in both space and time. A forward airfield enhances—

- The range at which the commander can take advantage of intelligence collection and joint/coalition fires (direct and indirect) against either a conventional or an asymmetric threat.
- Economy of force and resources ensuring that Army aviation can range anywhere within the AO.
- Aviation's ability to provide close combat attack for engaged ground elements, conduct shaping operations, support sustainment, and provide aerial command and control (C2) platforms for supported tactical and operational commanders.
- The mobility, long-range fires, and sophisticated sensors of attack reconnaissance aircraft permitting enemy detection and engagement beyond the range of ground direct fire systems.
- Assault aviation's capability to transform light Soldiers into a mobile, flexible force.
- Conventional and asymmetric operations.
- Aviation maneuver (maneuver support and sustainment missions).

1-4. Ground forces benefit from forward airfields through—

- Increased speed to support operations.
- Overwatch of moving forces.
- Insertion of light or dismounted forces to seize chokepoints and secure danger areas prior to heavy force linkup.
- Heavy helicopter movement of critical equipment and supplies forward.
- Information systems aircraft providing commanders mobility and communications links.

1-5. Well-established and maintained airfields contribute to aviation tactical sustainment operations to include air movement and aerial sustainment in support of special operations, light, airborne, air assault, and heavy forces. It also supports high priority resupply and air movement throughout the theater of operations (TO).

1-6. Airfield service elements must maintain the capability of continuous 24/7 operations with a capability to launch and recover aircraft in instrument flight rules (IFR) weather conditions. This requires—

- Battle rhythm management.
- Operational, sustainable, and certified navigational aids (NAVAIDs).
- Adequate airfield lighting.
- Advanced digitized communications systems providing increased situational awareness.

1-7. Airfield planning principles and services are based on the types of aircraft utilizing the airfield and the assigned tasks associated with the airfield's mission. Depending on mission, enemy, terrain and weather, troops and support available, time available and civil considerations (METT-TC).

JOINT, INTERAGENCY, INTERGOVERNMENTAL, AND MULTINATIONAL AIRFIELD OPERATIONS

1-8. AOBs with augmentation of weather support, firefighting capability, airfield lighting, cargo handling, and NAVAIDs can support the joint operations of inter and intra theater transport and movement. Such augmentation permits the number of airfields capable of these operations within lodgment areas, theater staging bases, and aerial ports of debarkation (APODs) to be increased.

1-9. AOB support to maritime operations includes airfield operations in close proximity to seaports of debarkation (SPODs). These airfields increase the responsiveness and versatility of naval operations such as resupply and troop and equipment movement.

1-10. AOB support of special operations forces and interagency elements include all types of aviation missions launched and recovered from Army airfields. The AOB is challenged by compatible communications, synchronization and dissemination of airspace, and airfield procedures.

1-11. Multinational operations parallel joint and interagency support. Language and cultural challenges (the only exception) must be resolved by the AOB to effectively support these types of operations.

AIRLAND RESPONSIBILITIES

1-12. The Army and Air Force hold joint responsibility for selection of landing areas, with the objective of deploying and sustaining the force. They coordinate the landing zone (LZ) selection with the Air Force making the final decision. This decision is based on information gathered from a landing area study that highlights not only large, modern facilities, but also areas suitable only for takeoffs and landings and austere airfields similar to the one used by a C-17. Each identified site is classified based on suitability in terms of type and number of aircraft, and available and/or required support facilities. Any physical improvements necessary are the responsibility of the ranking Army engineer. Desirable characteristics of LZs are ease of identification from the air; a straight, unobstructed, secure approach for aircraft; and close proximity to ground objectives/units. LZs to be developed into theater airfields with more sophisticated facilities should possess the following additional characteristics:

- An area of sufficient size and trafficability to accommodate the number and type of aircraft to be landed.
- Parking and dispersal areas to accommodate the planned capacity of the facility.
- A road net to handle ground vehicular traffic.
- Minimum construction and maintenance requirements.
- Areas and facilities for air terminal operations.
- Facilities for holding patients awaiting evacuation.
- Sufficient aerial port capacity to handle incoming personnel and supplies.
- Facilities to support crash and rescue vehicles and equipment.

SECTION II – ORGANIZATIONAL DESIGN

1-13. TAOGs and AOBs were designed and implemented during Army transformation. Lessons learned identified the need for an airfield management capability to execute theater-level airfield missions. TAOGs provide the joint force commander (JFC) with the expertise to execute the theater airfield mission and coordinate all support requirements not organic to the AOB. These requirements include weather support, firefighting capabilities, airfield lighting, cargo handling, engineer and NAVAID support. The TAOG may be deployed in total or task organized by teams to provide the JFC with the coordination and C2 capability to operate a single airfield or conduct operations in multiple locations within the TO.

THEATER AIRFIELD OPERATIONS GROUP

1-14. The TAOG executes theater airfield operations and synchronizes air traffic in a joint environment. It establishes theater airfields in support of reception, staging, onward movement, and integration requirements, SPOD, and APOD operations. The TAOG coordinates and integrates terminal airspace use requirements with the Airspace Command and Control (AC2) element of controlling headquarters. The TAOG coordinates and schedules flight checks, reviews and processes terminal instrument procedures (TERPs), and provides quality assurance of the controller, air traffic control (ATC) maintenance, and flight operations training and certification programs. It also supports the Army Service Component Command regarding Title 10 air traffic services (ATS) issues, liaison responsibilities with host nation airspace authority, and other U.S. and combined services and agencies. The TAOG (figures 1-1, page 1-4) is organic to the theater aviation command. The TAOG consists of a headquarters and headquarters company and five AOBs.