

# Airlift Operations



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OPR: HQ AFDC/DR (Maj Gary Potter and Maj Richard Leatherman)  
Certified by: HQ AFDC/DR (Col Thomas A. Bowermeister)  
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Approved by: TIMOTHY A. KINNAN, Major General, USAF  
Commander, Air Force Doctrine Center

## **FOREWORD**

Unprecedented global change has characterized international affairs through the last years of the twentieth century. Responding to this new international landscape, the US military posture no longer relies primarily on forward-deployed forces. Our strength lies in forces that are based predominantly in the continental United States (CONUS). Therefore, the ability to project combat power and US influence rapidly and flexibly anywhere in the world hinges on the United States' unmatched global airlift capability. Airlift's ability to project forces in both a lethal and nonlethal manner lies at the heart of the national military strategy. Airlift is a critical component of the US military capability, and because of its low density/high demand nature, every effort must be made to ensure it is used as efficiently and effectively as possible.

**TIMOTHY A. KINNAN**  
**Major General, USAF**  
**Commander, Air Force Doctrine Center**

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# INTRODUCTION

*Airlift is the transportation of personnel and materiel through the air and can be applied across the entire range of military operations in support of national objectives.... A key function of the Air Force, airlift provides global reach for US military forces and the capability to quickly apply strategic global power to various crisis situations worldwide by delivering necessary forces.*

**Air Force Doctrine Document 1**  
*Air Force Basic Doctrine*

## PURPOSE

Air Force Doctrine Document (AFDD) 2-6.1, *Airlift Operations*, has been prepared under the direction of the Commander, Headquarters Air Force Doctrine Center. This document establishes United States Air Force operational doctrine for the planning, command and control, and operations of airlift forces. Guidance found in this document is consistent with, and complementary to, doctrine contained in AFDD 1, *Air Force Basic Doctrine*, AFDD 2, *Organization and Employment of Aerospace Power*, and AFDD 2-6, *Air Mobility*.

## APPLICATION

This AFDD applies to all Air Force military and civilian personnel (includes Air Force Reserve Command [AFRC] and Air National Guard [ANG] units and members). The doctrine in this document is authoritative but not directive. Therefore, commanders need to consider not only the contents of this AFDD, but also the particular circumstances in which they find themselves—national military objectives, available forces, enemy capabilities, rules of engagement, etc.—when planning airlift operations.

## SCOPE

This doctrine guides the Commander, Air Force Forces (COMAFFOR) and the joint force air component commander (JFACC) in developing airlift operations in support of joint force commander (JFC) campaign objectives. In addition, this document provides fundamental principles

and doctrine for the conduct of aerial and airland delivery operations throughout the range of military operations.

# CHAPTER ONE

## GENERAL

*Whatever it is, relieving friends or repelling foes, US airpower relies on the dedication, sacrifice and professionalism of the members of our great Air Mobility Team. Air Mobility Command is our leading edge, it's what takes us to the fight.*

**General Michael Ryan, USAF  
Air Force Chief of Staff**

## OVERVIEW

A nation's ability to project power and sustain its forces is a definitive indicator of its capacity to protect its national security interests. US airlift forces provide the National Command Authorities (NCA) with this critical capability. **Airlift forces can be employed across the full spectrum of operations, from peacetime to contingency operations to major theater war.** While all aerospace forces have enormous potential to rapidly and flexibly deliver lethal effects against an adversary, airlift forces can also provide equally important nonlethal capabilities, e.g. domestic relief support or aid to allies.

**Airlift forces are vital and robust instruments of national will and resolve. They can be used for both presence and power.** *Presence* unambiguously communicates US interest and commitment to a given region or state, and demonstrates our willingness to resolve a situation according to our national security interests and those of our allies. *Power* is the ability to coerce or compel an opponent to act in accordance with our will. In some situations the opponent may not be another state but rather a non-state actor such as a terrorist group, drug traffickers, or a state which has fallen into chaos. *Airlift can bring a constructive force* to a humanitarian crisis or a natural disaster by transporting medical and civil affairs personnel and equipment to those in need, ending human suffering. *It can also exert destructive force* against an opponent such as a forcible entry operation, where airlift assets, in concert with ground units, conduct combat delivery missions to establish a lodgment followed by combat sorties, to reinforce and

sustain ground forces. Whatever the situation, airlift moves the assets to resolve the contingency according to the security interests of the United States or its allies.

### Operation VITTLES

In February 1948, a Soviet backed coup seized power in Czechoslovakia tightening communism's grip on Eastern Europe. West Berlin remained as a lone democratic hold-out in the communist sea. In June of that year Soviet forces closed all overland routes into West Berlin, isolating the city from the outside world. These developments led to the first humanitarian air-



lift of the Cold War, and the largest in history. "We are going to stay, period" remarked President Truman. The United States would sustain the city through the air.

Before the blockade, the city imported 15,500 tons of material daily to meet its needs. Minimum requirement for survival was estimated at 4,000 tons a day. C-47s and C-54s were only able to airlift 80 tons of supplies on the first day of the operation. However, once maintenance inefficiencies, turnaround delays and air traffic flows were ironed out tonnage airlifted increased. With the help of airlifters from the Royal Air Force, the daily tonnage to Berlin would climb to nearly 13,000. Operation VITTLES would eventually bring over 1.5 million tons of food, medicine, coal, and other supplies into West Berlin. For 462 days, the allies provided an airborne lifeline to West Berlin. By September 1949 the Soviet's conceded that its blockade had failed, and reopened the roadways into Berlin.

Operation VITTLES preserved West Berlin, a thorn in the side of East Germany, and contributed to German reunification in 1990. This historic effort proved that an airlift could sustain a city completely surrounded by hostile forces. Operation VITTLES also demonstrated US commitment to defend the "free world" from communist expansion. Finally, the Air Force sustained the Berlin Airlift at the same time that negotiations were underway to create the North Atlantic Treaty Organization (NATO), and the successful operation provided a compelling example of allied cooperation.

**Presence and power projection capabilities are the foundation of our National Security Strategy (NSS).** *The NSS sets an “imperative of engagement” which is the need to shape the international environment, to respond to the full spectrum of crises, and to prepare for an uncertain future. Airlift plays a central role in meeting two of these needs. It helps shape the international environment by demonstrating US ability to influence events far from its shores and its willingness to engage others, assisting or compelling them to act. Airlift enables the United States to respond across the full spectrum of crises, because these crises may occur anywhere around the globe; US influence is only credible if its presence is tangible and its power formidable.*

As laid out in *Global Engagement: A Vision for the 21<sup>st</sup> Century Air Force*, the core competencies of US Air Force (USAF) forces, although not doctrine, represent the combination of professional knowledge, airpower expertise, and technical knowledge that, when applied, produce superior military capabilities. *Airlift directly contributes to most USAF core competencies and significantly enhances the options and capabilities available to the JFC, as illustrated below:*

- ✦ Airlift forces transport the crews, maintainers, support, and weapons that enable the Combat Air Forces to achieve *aerospace superiority*.
- ✦ Through strategic airdrop of brigade-sized and smaller units, airlift forces can support *global attack* by delivering airborne forces anytime and anywhere on the globe.
- ✦ Insertion of special operations forces by means of airland or airdrop where selective force is applied to achieve discrete and discriminate effects epitomizes *precision engagement*.
- ✦ The airlift system underpins *agile combat support* by substituting reachback and responsive resupply capability for massive deployed inventories and unnecessarily large mobility footprints.
- ✦ Finally, airlift's most tangible contribution is to *rapid global mobility*. Rapid global mobility is the linchpin of global engagement. Airlift is *rapid* as it allows the JFC to quickly move personnel and equipment. Airlift is *global* because it enables the movement and sustainment of forces anywhere in the world. Airlift's *mobility* brings the speed, range, and flexibility inherent in airpower to the JFC, increasing the ability to maneuver forces faster than an opponent.



**A C-5's cargo capacity increases a joint force commander's ability to maneuver forces rapidly.**

## **COMPONENTS OF THE AIRLIFT FORCE**

*Mobility Air Force airlift forces are drawn from active duty, AFRC, ANG, and Civil Reserve Air Fleet (CRAF) components.* Collectively these components provide the crews, airframes, and support forces that conduct intertheater, intratheater, and Operational Support Airlift (OSA) operations to support the combatant commander in chief (CINC). These operations support actions throughout the spectrum of military operations.

### **Active Duty Component**

**Active duty airlift forces are assigned to a functional CINC, Commander in Chief, United States Transportation Command (USCINCTRANS), and to two geographic CINCs: United States Commander in Chief, Europe, and Commander in Chief, United States Pacific Command.** Those forces assigned to USCINCTRANS primarily perform intertheater missions (movements within the CONUS, as well as between CONUS and a CINC's area of responsibility [AOR], or

between two AORs), as well as intratheater missions (within the theater or joint operations area [JOA]). Those assigned to the geographic CINCs typically perform intratheater missions. These forces conduct the core day-to-day airlift missions and most of those missions requiring specialized training and equipment. *Active duty forces offer accessible and flexible airlift, immediately available, for worldwide taskings.* While active duty airlift forces offer a great advantage in terms of being available on a full-time basis, demand for airlift consistently outpaces availability. As a result, great reliance is placed on AFRC and ANG assets to help meet the daily demands placed on the airlift system.

### **Air Force Reserve Command (AFRC) and Air National Guard (ANG) Components**

**The AFRC and ANG both provide airlift forces to the combatant CINCs, other US government agencies and, in the case of the ANG, to individual states.** These forces perform intertheater and intratheater missions and, in some cases, unique missions such as aerial fire fighting, hurricane hunting, aerial spray operations, and COMMANDO SOLO psychological operations flights. AFRC/ANG forces are an important supplement to active duty airlift forces. During peacetime, the AFRC/ANG provide forces on a volunteer basis. When mobilized, AFRC/ANG units are placed on active duty status and may be used in the same manner as active duty units. AFRC/ANG forces maintain the same mission-ready status as their active duty counterparts and are force multipliers in a high operating tempo environment. When using these assets, it is important that commanders and planners appreciate the intricate balance that exists between their peacetime mission requirements and the needs of civilian employers. AFRC/ANG forces have a significant share of intratheater and intertheater airlift manpower and equipment. Proper planning and coordination will enable these forces to participate in missions at increased rates.

### **Civil Reserve Air Fleet (CRAF)**

**The CRAF provides important surge capacity to United States Transportation Command (USTRANSCOM) during contingency and wartime operations.** *It provides commercial aircraft and aircrews to augment active duty, ANG, and AFRC forces that, together, complete the airlift system.* During peacetime, periods of regional crises, (when activation of the CRAF is not required), and exercises, CRAF participating carriers are contracted for movement of passengers and cargo. These carriers enable

USTRANSCOM to meet contingency/exercise requirements and continue lower priority channel service (see chapter 2). *As the demand for airlift increases during a conflict, USCINCTRANS, upon approval of the Secretary of Defense (SecDef), may incrementally activate the CRAF according to stages based on the urgency and magnitude of the airlift requirement.* Activation occurs in three stages: *Stage I* for small scale contingencies, *Stage II* for major theater wars, and *Stage III* for full national mobilization. Each stage is designed to meet a specific and sequentially greater wartime requirement.

## **KEY PRINCIPLES OF WAR AND TENETS OF AEROSPACE POWER**

**The principles of war and tenets of aerospace power, as set down in AFDD 1, Air Force Basic Doctrine, guide the employment of aerospace forces, including airlift.** Airlift is a key function of the Air Force, a foundation of US national security at the strategic level, and a critical capability for theater operational commanders. Because airlift is crucial in securing national objectives, **it is important for the JFC, the JFACC,**



**Intertheater airlift assets are effective enablers towards accomplishing the commander's overall objectives.**

**and planners at all levels to fully understand and appreciate how the principles of war and tenets of aerospace power apply to airlift.**

### **Principle of Unity of Command**

**Unity of command ensures unity of effort under one responsible commander for every objective.** Unity of command means that all forces operate under a single commander with the requisite authority to direct those forces in pursuit of a common purpose. This principle emphasizes that all efforts should be directed and coordinated toward a common goal. Airlift command and control (C2) consists of three independent structures: intertheater, intratheater, and joint task force (JTF). When integrated, they comprise the overall airlift C2 system. Unity of command is preserved within each structure where a single commander is charged with the responsibility to efficiently and effectively employ their forces and, through disciplined coordination among these structures, achieve unity of effort.

### **Principles of Mass and Maneuver**

**The principle of mass calls for concentrating combat power at a decisive time and place.** At the operational level, mass suggests superior, concentrated combat power is used to achieve decisive results. From an airman's perspective, mass must also include airpower's ability to assist in the massing of lethal and nonlethal surface forces. **The principle of maneuver calls for action to place the enemy in a position of disadvantage through the flexible application of combat power.** Aerospace maneuver is uniquely able to achieve mass while moving with unmatched agility.

*Invincibility lies in the defense; the possibility of victory in the attack. One defends when his strength is inadequate; he attacks when it is abundant.*

**Sun Tzu**  
*The Art of War*

**Airlift forces exemplify mass and maneuver.** For example, during the German invasion of the island of Crete during World War II, the Germans needed to insert forces onto the island even though the British

controlled the surrounding waters. Only through the use of massed airlift was the German commander able to successfully maneuver his forces, gaining surprise and winning the battle. While this demonstrates the use of airlift to achieve mass and maneuver in a lethal role, the Berlin Airlift is an example of airlift achieving mass and maneuver in a non-lethal manner.

### **Tenet of Centralized Control and Decentralized Execution**

Aerospace forces should be centrally controlled by an airman to achieve synergy, establish effective priorities, capitalize on unique strategic and operational flexibilities, ensure unity of purpose, and minimize the potential for conflicting objectives. Execution of aerospace missions should be decentralized to achieve effective spans of control, responsiveness, and tactical flexibility.

The airlift system should appear seamless to the user. This system, consisting of intertheater, intratheater, and JTF-dedicated airlift forces, should be *centrally controlled* and *decentrally executed* to ensure an integrated flow of forces and sustainment. *Centralized control ensures that limited airlift assets are properly assigned against the most important objectives.* Decentralized execution ensures those who are responsible for executing the airlift mission actually accomplish the detailed planning and have the requisite authority to exploit fleeting opportunities as required to successfully meet mission objectives.

### **Tenets of Flexibility and Versatility**

**Aerospace power is flexible and versatile.** *Flexibility allows aerospace forces to exploit mass and maneuver simultaneously and to a far greater extent than surface forces.* It also includes the ability to rapidly shift from one campaign objective to another, quickly and decisively. *Versatility in aerospace power stems from the fact it can be employed with equal effectiveness at the strategic, operational, and tactical levels of warfare.*

*Airlift forces are flexible* and adjust to changes in the mission, environment, and user demands. Airlift forces accomplish a wide range of missions, using a variety of delivery methods. They possess the ability to rapidly transition between these missions and methods of delivery. Airlift's capability to accomplish many tasks in rapid succession coupled with the *inherent versatility* of airpower to attain objectives at strategic, operational, or tactical levels gives the NCA increased options to achieve its objectives.



**A C-130's capability of landing at small austere fields gives commanders great flexibility to mass troops quickly.**

### **Tenet of Priority**

**Airlift assets are always in great demand and should be prioritized.** The limited number of airlift assets requires combatant commanders to reserve this mode of transportation for movement of forces and cargo critical to the successful execution of their campaign plans. Fundamental to achieving centralized control of airlift is the ability for commanders to maintain in-transit visibility (ITV) through the tagging, tracking, and monitoring of personnel, patients, and cargo moving within the air mobility system. ITV allows commanders to track the passenger and cargo flow, when necessary, in order to mass and maneuver their forces at the right time and place to achieve desired effects in a dynamic environment. *Therefore, it is essential that all movement requirements are appropriately prioritized and planned against airlift assets in a manner that maximizes the utility of this scarce resource.*

### **SUMMARY**

**Airlift is an important national resource and plays a key role in any US response to counter threats to its national security.** More than just airframes and aircrews, it is a seamless and responsive system providing the NCA and combatant commanders the airlift necessary to

move personnel and cargo anywhere, any time. *Capable of responding to any tasking across the spectrum of operations and under a variety of conditions, airlift is a vital component of rapid global mobility*

## CHAPTER TWO

### AIRLIFT OPERATIONS

*Victory smiles upon those who anticipate the changes in the character of war, not upon those who wait to adapt themselves after the changes occur.*

**Giulio Douhet**  
*The Command of the Air*

#### GENERAL

Airlift is a key component that enables the US to project power across the full spectrum of political and military operations. Airlift operations support the US National Security Strategy and enhance the global power of military forces by supporting and executing the plans and operations of combatant commands, as directed by the NCA.

Airmen should understand the basics of airlift operations which include: the airlift system, airlift classifications, delivery methods, and airlift missions. Airlift operations use a variety of airframes, which are optimized for efficiency and effectiveness. Ultimately, mission requirements define how each airframe is employed.

#### THE AIRLIFT SYSTEM

**The airlift system is an integrated system that incorporates all aspects of intertheater, intratheater, and JTF-dedicated airlift.** To accomplish this, airlift providers of the combatant command's air components, the AFRC, the ANG, and the CRAF must work together. To meet user requirements, missions are scheduled in accordance with the Joint Chiefs of Staff (JCS) priority system. The airlift system delivers personnel, patients, and/or cargo when and where they are needed, (chapter three provides additional discussion on organization and command and control of intertheater, intratheater, and JTF-dedicated airlift systems), and falls into two funding categories to accomplish these missions: *common-user and organic airlift*.

USTRANSCOM and some geographic combatant commands provide *common-user* airlift for the Department of Defense (DOD). Common-users are military Services, other DOD agencies, or non-DOD agencies, that request airlift and are provided airlift service through USTRANSCOM or the geographic combatant commands. Common-users fund airlift through the transportation working capital fund. Special assignment airlift missions (SAAMs), exercise, and contingency missions are based on actual cost billed in flying hour increments. Channel missions (including contingency channels) are commercially competitive but are billed in pound/mile vice flying hour increments. Use of these assets is on a fee-for-use basis designed to add discipline to the utilization of these limited resources.



**Common-user airlift provides commanders quick, responsive transportation--the success of an operation may rely on these assets.**

*Organic airlift* is primarily a Service responsibility and is funded through the Service's operation and maintenance budget. It provides specialized lift to specific users, usually between terminals within a theater. Operational Support Airlift (OSA) is one example of US Air Force organic airlift.

## **CLASSIFICATIONS OF AIRLIFT OPERATIONS**

### **Intertheater Airlift**

Intertheater airlift primarily provides common-user airlift to and from the supported CINC's theater. As a common-user asset, intertheater airlift is available to all authorized users including the Military Services, the combatant commands, other DOD components, other US Government

agencies, and, if requested by a US agency and properly approved in accordance with DOD transportation policy, foreign governments. The available intertheater airlift is normally apportioned among the Services and joint forces in accordance with guidance from the NCA. These assets provide outsized and oversized cargo capability to all users.

### **Intratheater Airlift**

Intratheater airlift provides delivery of personnel and materiel within a geographic CINC's area of responsibility (AOR). This classification of mission generally requires aircraft capable of operating under a wide range of conditions to include austere, unimproved airfield operations. Intratheater airlift assets are normally those assets assigned or attached to a combatant commander. Typically, these assets provide the time-sensitive airlift capability needed to fulfill the JFC's theater operational and tactical objectives. During a contingency, Air Mobility Command (AMC) assets will normally augment these forces and will also provide the preponderance of the capability when oversized and outsized cargo comprise the bulk of the intratheater requirement. **Categories of intratheater movement are unit deployment, employment, movement, redeployment, and sustainment of the theater's deployed units as well as reparables retrograde.**

### **Operational Support Airlift (OSA)**

OSA provides time-sensitive movement of personnel and small amounts of cargo. These platforms are usually smaller sized business-type aircraft and often supplement the joint use airlift system. Outside of the continental United States, OSA assets are assigned to the Service component of combatant commands and are used to meet the CINC's or Service component commander's needs. CONUS-based OSA assets are assigned to the Services but are centrally controlled by the joint operational support airlift center to serve the needs of approved DOD users. OSA provides the commander another means of airlift for high-priority passengers and cargo with time, place, or mission-sensitive requirements. OSA aircraft are not equipped with defensive systems and should only be employed in low threat environments.

## **DELIVERY METHODS**

**There are two methods of aerial delivery: airland and airdrop.** A number of planning factors and the JFC's objectives will determine

which method is more appropriate. Each has its distinct advantages and disadvantages which are highlighted below.

## Airland

**Airland delivery occurs when an aircraft lands at the objective air terminal and unloads its cargo; offloading personnel and cargo is done entirely on the ground.** This is **the preferred method of delivery** because it is the most efficient and least expensive. This delivery method can be conducted at well-established airbases or may involve tactical deliveries to unimproved, dirt strip assault landing zones (ALZs).

**One airland delivery procedure is the engine running offload and onload.** This procedure significantly reduces an aircraft's ground time, however, ground personnel are subject to increased safety risks. **A more expeditious procedure is the combat offload method.** This procedure entails offloading cargo while taxiing, further reducing the aircraft ground time and reducing the requirement for materials handling equipment (MHE) at the air terminal. This procedure cannot be accomplished by all aircraft types and subjects cargo and taxiways to possible damage. In addition, for those aircraft accomplishing both types of offloads,



**Ground personnel marshalling cargo of a C-17 upon arrival at its aerial port of debarkation.**

the combat offload is potentially more hazardous due to the dynamic nature of the operation.

### **Advantages of Airland:**

- ✦ Allows a greater degree of unit integrity and permits units to rapidly deploy after landing.
- ✦ Carries the least risk of injuring personnel and damaging loads.
- ✦ Requires minimal specialized training and equipment for transported personnel.
- ✦ Requires less special rigging and packaging of materiel than airdrop.
- ✦ Permits the maximum utilization of allowable cabin loads (ACLs) by eliminating the volume and weight penalties of preparing loads for airdrop deliveries.
- ✦ Maximizes the opportunity to backhaul cargo and evacuate personnel.

### **Disadvantages of Airland:**

- ✦ Requires suitable airfields or ALZs that are moderately level, unobstructed, able to sustain the aircraft's weight, and available for the anticipated operation.
- ✦ Increases intervals between aircraft deliveries depending on an airfield's infrastructure and support capability.
- ✦ Requires mission support such as ground-handling and transportation assets.
- ✦ Prolongs exposure to air or ground attacks.

Sound operational procedures, well planned airbase defense, and rapid offloading and onloading techniques associated with various airlift aircraft can minimize these disadvantages. *Planners should view airland delivery as the method of choice for most air movements.*

### **Airland Employment Concepts**

**Airland employment operations are based on two concepts: hub and spoke, and direct delivery.** Hub and spoke operations integrate both intertheater and intratheater airlift operations. **Starting from aerial ports of embarkation (APOEs), the movement of cargo and**

personnel progresses through one or more en route staging bases to arrive at a main operations base (the hub) or aerial port of debarkation (APOD) within a theater. The hub is the focal point for follow-on intratheater airlift missions. Cargo and personnel are processed and readied for transshipment by intratheater assets to forward operations bases (FOB—the spokes) throughout the theater.

### BOOKIE 771



On 12 May 1968, the crew of Bookie 771, a C-123 piloted by Lieutenant Colonel (Lt Col) Joe M. Jackson attempted the rescue of a three-man USAF combat control team (CCT) from the Special Forces Camp at Kham Duc, South Vietnam. Vietcong forces had overrun the forward outpost and established gun positions on the airstrip. They were raking the camp with small arms, mortars, light and heavy automatic weapons,

and recoilless rifle fire. The camp was engulfed in flames and ammunition dumps were continuously exploding and littering the runway with debris. In addition, eight aircraft had been destroyed by the intense enemy fire and one aircraft remained on the runway, reducing its usable length to only 2,200 feet.

To effect the rescue, Lt Col Jackson would have to stop his aircraft in a hurry, but using reverse thrust to slow the C-123 would automatically shut off the two jets that would be needed for a minimum-run takeoff. Meanwhile, the weather above the field was deteriorating rapidly leaving time for only one airstrike prior to the landing. Although fully aware of the extreme danger and likely failure of such an attempt, Lt Colonel Jackson elected to attempt the rescue.

Nine thousand feet high and rapidly approaching the landing area, Lt Col Jackson pointed the aircraft's nose down in a steep dive. With full aileron and full opposite rudder the C-123 fell out of the sky. Approaching tree-top level, Lt Col Jackson coaxed the aircraft's nose up breaking the dizzying decent one quarter mile from the end of the runway.

Taken by surprise, enemy gunners opened fire on the C-123 as it neared the strip. Successfully negotiating the gauntlet of fire, Lt Col Jackson landed the aircraft and brought it to a stop 1,100 feet down runway. The crew could see bullets striking all around them and could hear the sound of enemy guns and mortars above the roar of their four engines. As the CCT scrambled aboard, Jackson turned the airplane to depart to the north, over the same end of the runway he had landed on.

Despite the fact that the enemy had fired at Bookie 771 while it was descending, while it was on the runway, and while it was climbing out, the aircraft did not sustain a single hit. For his heroic actions at Kham Duc, Lt Col Joe M. Jackson was awarded the Medal of Honor becoming the only airlift crewmember to win a Medal of Honor during the Vietnam War.

Direct delivery bypasses en route stops by airlifting personnel and materiel from the APOE directly to FOBs within a theater. While this delivery method eliminates hub and spoke operations, there are several impacts to consider. The FOB will normally require maintenance support and the equipment/personnel to offload larger aircraft. Additionally, direct delivery usually necessitates longer flight profiles, which generally require air refueling and augmented airlift aircrews. The FOB may be unsuitable for stage operations. If direct delivery operations are conducted into small austere airfields (SAAF) or advanced operating bases, crews and aircraft may be exposed to a much greater risk and would need to be prepared accordingly. Although direct delivery decreases shipment time for individual loads, it often reduces cargo distribution flexibility.

### **Airdrop**



**Airdropping personnel or cargo is one method of aerial delivery.**

**Airdrop is the delivery of personnel and materiel from an aircraft in flight to a drop zone (DZ).** Most airdrop procedures use parachutes to deliver loads to the ground, such as heavy equipment, container delivery systems, and personnel. Another airdrop procedure is

free fall delivery. This involves dropping relatively small items, such as meals, ready to eat, without the use of a parachute.

Airdrop allows commanders to project and sustain combat power into areas where a suitable ALZ or a ground transportation network may not be available. This delivery method maximizes the principles of surprise and maneuver. It allows rapid insertion of combat forces to numerous objective areas.

### **Advantages of Airdrop:**

- ✦ Minimizes aircraft and personnel exposure to threats at the objective area.
- ✦ Permits sustainment deliveries to units operating away from airfields and ALZs.
- ✦ Permits the delivery of combat forces and materiel, concentrated and in mass, in minimal space and time.
- ✦ Permits the delivery of personnel and materiel in conditions that would prevent airland operations.
- ✦ Eliminates the need for ground support infrastructure and personnel.

### **Disadvantages of Airdrop:**

- ✦ Carries an increased risk of injury to personnel or damage to cargo.
- ✦ Requires special training for riggers, transported personnel, and the aircrews.
- ✦ Limits cargo loads because additional rigging is required for airdropped materiel.
- ✦ May decrease aircraft range due to low-level ingress/egress and formation tactics employed.
- ✦ Increases mission planning time and complexity, requires additional intelligence preparation.

Ultimately, the decision to use airdrop is based on a user's requirements. This method is expensive and exposes the airdropped materials to potential damage not encountered in airland operations. In addition, specialized aircrew training is required.

## AIRLIFT MISSIONS

Airlift encompasses four basic missions to support strategic, operational, and tactical requirements: *passenger and cargo movement, combat employment and sustainment, aeromedical evacuation (AE), and special operations support.*

### Passenger and Cargo Movement

**The movement of passengers and cargo between theaters and within a theater via air is a primary airlift mission.** Normally, the deployment, redeployment, retrograde movement, and sustainment of passengers and cargo are satisfied by regularly scheduled missions. In these instances, once an airlift request is validated, the requirements are categorized in order to effectively manage the requests. Below are descriptions of mission management categories for airlift missions. The airlift system has a limited surge capability to meet JTF requirements during a crisis.

### Mission Tasking Categories



**C-141 aircraft offloading cargo. Channel missions are the most frequently used by commanders during peacetime operations.**

## Channel

AMC uses two types of channel missions to meet customer needs: requirement-based and frequency-based. **A requirement-based channel** is established when a specified amount of passengers or cargo destined for one location warrants movement. **A frequency-based channel** is established to serve locations, including remote sites, at regularly scheduled intervals. Geographic CINCs can also develop requirement- or frequency-based channel missions to support their intratheater movement needs and the majority of airlift sustainment will move on channel missions. Both channel types use the JCS priority system.

### Special Assignment Airlift Mission (SAAM)

SAAMs are operated to satisfy unique customer requirements for pickup/delivery at locations other than those established within the approved channel structure. SAAM movements may be driven by constraints of time, geographic location, or type of cargo. SAAMs are prioritized through the JCS priority system.

### Special Air Mission (SAM)

SAMs support the White House and other executive branches of the government through operations of the 89<sup>th</sup> Airlift Wing (AW). Aircraft scheduling and tasking is through the Vice Chief of Staff of the Air Force with command authority delegated from the Commander, Air Mobility Command (AMC/CC) to the 89 AW Commander. The Military Assistant to the President has tactical control of presidential aircraft. SAM operations are outside the normal command authority of AMC's C2 system.

### Air Mobility Express (AMX)

At the request of the supported combatant commander, USCINCTRANS can establish **an AMX operation to move critically needed items rapidly to an AOR**. The supported combatant commander may apportion Chairman of the Joint Chiefs of Staff (CJCS)-allocated lift on AMX by pallet positions to each component. For AMX missions to be effective, the supported combatant commander must establish a theater distribution system to deliver express cargo from APOD to final destination.

## **Joint Airborne/Air Transportability Training**

These airlift missions are CJCS directed to provide continuation and proficiency training to airlift aircrews, support personnel, and Service customers. The Tanker/Airlift Control Center (TACC) or Air Mobility Operations Control Center (AMOCC) coordinates with users to provide airland, airdrop, aircraft load, and Service school support.

### **Exercise and Contingency**

Exercise and contingency missions involve deployment, sustainment, and redeployment by intertheater or intratheater airlift. Theater CINCs develop an operation plan (OPLAN) or operation order (OPORD) with specific logistical requirements for operations directed by the JCS or NCA. Once these requirements are validated for movement, they are translated into time-phased force and deployment data (TPFDD). A TPFDD lists deploying units, routing information, and details necessary to conduct the operation. The TPFDD details the CINC's priorities and enables planners to build air movement plans. The TACC or AMOCC schedules airframes and the support necessary to manage an airlift flow using a TPFDD.

### **Combat Employment and Sustainment**

Combat employment and sustainment missions require the most detailed planning and involve the highest risk to aircraft, aircrew, and users. Combat employment airlift moves combat-loaded units to maximize their readiness for immediate engagement in combat operations within a theater, while combat sustainment airlift ensures those forces are resupplied under hostile conditions. Given the assumption of immediate combat, user requirements should drive scheduling and load planning. However, for large-scale operations or increased threat situations, it may be necessary to adjust the user's plan to accommodate aircraft limitations, tactical procedures, intelligence information, and defensive support requirements.

Combat sustainment operations reinforce or resupply units engaged in combat, and permit timely return of repairable parts—often in critically short supply—to designated repair points. Combat sustainment planning usually assumes that user requirements and threat situations allow little or no flexibility in the delivery times, locations, and load configurations. Combat requirements and cargo handling limitations at forward operating



**Combat-loaded aircraft adjust load configurations based on customer requirements.**

locations drive flight schedules and load plans. Mission effectiveness is the primary objective and the efficient use of aircraft and support resources is secondary. Combat sustainment employs both delivery methods but is usually associated with airdrop.

**Aeromedical Evacuation (AE)**

AE is the rapid intertheater and intratheater movement of sick or injured personnel under medical supervision to appropriate medical care. Movement of patients normally requires specially qualified aeromedical crewmembers to accompany the patient, special air traffic control considerations to comply with patient driven altitude and pressurization restrictions, and aircraft compatible medical equipment. AMC and theater component commands assign specific fixed wing aircraft and support organizations to respond to the needs of both the theater and CONUS medical communities.

Nearly all airlift aircraft can be configured to support the AE mission provided trained medical personnel are available. Whenever possible, aircraft used exclusively for AE should be painted with a distinctive red cross on a white background. A dedicated aeromedical system will be planned to operate in support of any JTF. Intratheater AE involves movement of patients within the theater of operations from the mobile aeromedical staging facilities located near the front lines to the aeromedical staging squadrons in the rear area. This movement of casualties out of the combat zone during contingency operations is generally accomplished using dedicated aeromedical aircraft, such as the C-9, or other scheduled aeromedical aircraft. Contingency intertheater AE will normally be accomplished using dedicated AE CRAF. Retrograde or dedicated military AE aircraft may be used when AE CRAF capability is exceeded or on an urgent or priority basis.

The Director of Mobility Forces (DIRMOBFOR) is responsible for coordinating, integrating, and employing USAF AE assets. The Aeromedical Evacuation Coordination Center (AECC) provides operational and communications network control for theater AE elements. The AECC manages the medical aspects of AE mission operations and is the operations center where overall planning, coordinating, and directing of theater AE operations is accomplished. The AECC is responsible for identifying and coordinating AE airlift requirements, notifying appropriate elements of airlift schedules, and monitoring execution of AE missions. It serves as the liaison team in the AMD for deployed medical units in the theater. The AECC should be collocated with the AOC.

The Theater Patient Movement Requirements Center is the centralized agency for initially identifying evacuee requirements to the next level of care. AE C2 elements act upon patient movement requirements identified by theater CINC or USTRANSCOM patient regulating and movement organizations. The Global Patient Movement Requirements Center (GPMRC) is the single manager for regulating intertheater patient movement to CONUS-based medical treatment facilities. The GPMRC centrally coordinates patient movement requirements and matches them with available, appropriate transportation.

### **Special Operations Support**

Airlift forces provide valuable support to the special operations forces (SOF) operating within a joint force. When airlift requirements are needed, SOF units will request support through the joint special operations



**Intertheater and intratheater patient movements require specially trained medical personnel to assist in the airlift movement of injured troops.**

component commander and the special operations liaison element, who work in the AOC. When SOF units require airlift augmentation, intertheater assets can provide outsized and oversized cargo capability. Airlift forces capable of performing special operations-specific missions are specially trained and equipped to maximize SOF integration. To ensure maximum integration, airlift forces may be attached to SOF for specific operations.

## **SUMMARY**

Airlift provides air and surface forces the flexibility to operate across the full spectrum of operations. Airland and airdrop delivery methods maximize the principles of surprise and maneuver due to the speed and flexibility with which combat forces can be inserted. Airlift missions are designed to meet a variety of commander's requirements and objectives from peacetime movements to combat operations.

# CHAPTER THREE

## COMMAND AND CONTROL

**There are no secrets to success. It is the result of preparation, hard work, and learning from failure.**

**General Colin Powell**

### OVERVIEW

**Command and control (C2) is the exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. It is a complex process, performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission.**

(JP 1-02)

When employing airlift forces, it is essential airmen have a clear understanding of the associated command relationships and control processes affecting the effective application of these forces. Because airlift operates in three very distinct but interdependent operational environments, intertheater, intratheater, and within a joint task force's JOA, it can in fact complicate the command and control task. The ultimate goal of airlift command and control is, therefore, to present a seamless system to commanders, customers, and airlift operators in both peace and war. This chapter provides the doctrinal foundation for command and control of airlift forces.

### GENERAL

It is critical that airlift planners and operators understand the command relationships and control authorities associated with the employment of US forces. *Using standardized terminology and structures, whenever possible, will ease the rapid transition from peace to contingency and wartime operations.*

## COMMAND AND CONTROL STRUCTURE

There are three independent command and control structures that, when integrated, constitute the global airlift C2 system. They are the intertheater, intratheater, and JTF/JOA systems. Figure 3.1 illustrates these mission classifications.

### Intertheater Airlift Operations

Intertheater airlift operations are generally global in nature and serve the CONUS-to-theater air transportation needs of the geographic CINC. The vast majority of intertheater airlift missions are executed by AMC airlift aircraft. Command and control of these airlift assets is normally exercised through AMC's TACC. The TACC plans, coordinates, schedules, tasks, and executes airlift missions worldwide. The TACC is the single tasking and execution agency for all activities involving AMC assets operating to fulfill USCINCTRANS-directed requirements.

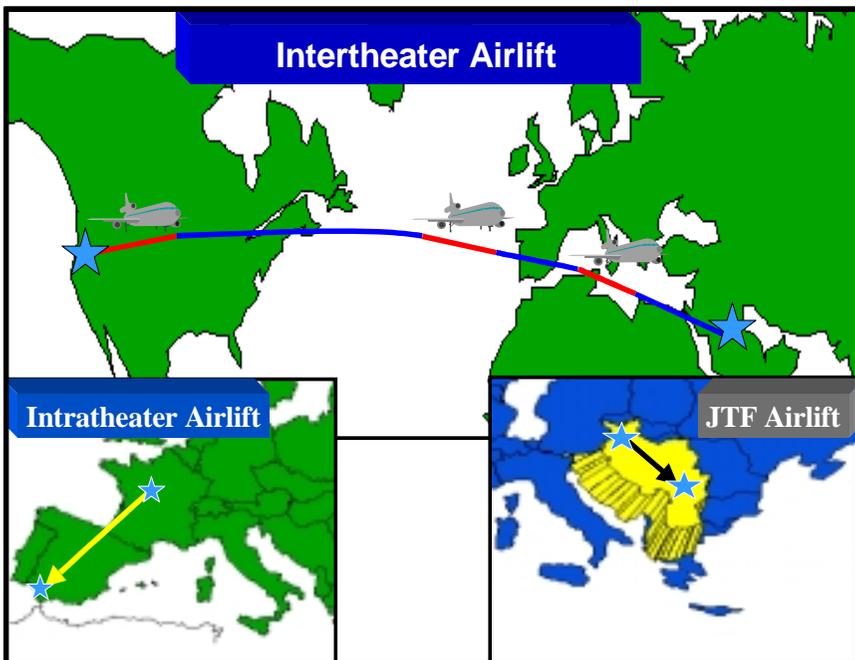


Figure 3.1. Airlift Mission Classifications

**Intertheater operations may also include movements between two geographical CINCs' theaters** (e.g., a movement from Europe to the Middle East would be an intertheater movement since it involves movement from the US European Command theater of operations to the US Central Command theater). *In most cases, assets assigned or attached to USCINTRANS will perform these movements. However, in the case of the movement between two regional commanders' AORs, where theater-assigned airlift assets are employed, the operating CINC retains combatant command. Issues of operational control (OPCON) and tactical control (TACON) of the airlift forces, to include global air mobility support forces, should be defined based on the nature of the tasking and the situation at hand.* These command relationships will normally be defined in the implementing orders associated with the conduct of any operation (e.g., operation order, warning order, planning order, execute order, etc).

### **Intratheater Airlift Operations**

**Intratheater airlift operations are regional in nature and serve a single geographic CINC's requirements.** *These operations are normally conducted using airlift forces assigned or attached, or made available for tasking to the applicable CINC.* When theater airlift requirements exceed the capability of the theater assigned or attached forces, the theater commander may request augmentation from either AMC or another regional CINC. Augmentation will normally come from the CONUS-based forces of AMC.

**Intratheater airlift operations may be controlled using one of two command and control concepts.** *In a mature theater, with a durable airlift mission and permanently assigned airlift forces, the CINC may establish an air mobility operations control center (AMOCC) through which OPCON of theater assigned or attached forces or TACON of intertheater assets (made available as the situation warrants) is exercised. The AMOCC is the theater air component commander's single command and control layer for planning, coordinating, tasking, and executing theater airlift operations.*

*In a theater in which an AMOCC has not been established, the theater air component commander will normally establish an airlift control organization (typically, an AOC) within the theater C2 structure to plan, coordinate, task, and execute theater-assigned airlift assets.*

## Joint Force Contingency Airlift Operations

It may be necessary, in the conduct of joint operations, to establish a joint force (subordinate unified command or joint task force) within a geographic CINC's AOR. These organizations allow the CINC to maintain a theaterwide focus and at the same time respond to a regional requirement within the theater. When this occurs, a JFC will be designated and forces will be allocated specifically for this operation. When a JTF is established, *the COMAFFOR/JFACC will normally establish an air operations center (AOC/JAOC).*

**The COMAFFOR/JAOC is responsible for coordinating and integrating JTF airlift operations with other aspects of JTF air operations.** *Within the AOC/JAOC, an Air Mobility Division (AMD) will be established to focus air mobility expertise on the needs of the JFC and to integrate JTF airlift operations with intratheater and intertheater airlift support for the JTF. Under this construct, combatant command authority (COCOM) will remain with either USCINCTRANS or the applicable geographical CINC as defined in the Secretary of Defense's "Forces for Unified Commands Memorandum." The JFC, however, will normally be delegated OPCON of forces attached to the JTF.*



**The DIRMOBFOR coordinates employment and sustainment airlift during contingencies for the JFACC.**

If the JFC requires theater airlift beyond that which has already been attached to the JTF, he may request additional augmentation. As above, the CINC providing this additional augmentation retains COCOM but the CINC may delegate TACON to the JFC, as necessary. In some circumstances, TACON of some intertheater air mobility aircraft may be transferred on a per-sortie basis to the COMAFFOR/JFACC for the JFC. In these circumstances, TACON will normally be delegated to the JFC, exercised by the COMAFFOR/JFACC, and executed through the DIRMOBFOR. In those cases involving transfer of TACON of forces not allocated to the JFC, the JFC must secure concurrence from either the AMC commander or the applicable geographical CINC's subordinate commander exercising OPCON of those forces.

**To further assist in the employment of airlift forces, the JFC through the air component commander may establish a DIRMOBFOR to function as the coordinating authority for air mobility with all commands and agencies both internal and external to the JTF.** The DIRMOBFOR may be sourced from the theater's organizations, or nominated by the AMC commander. Additionally, the DIRMOBFOR, when designated, *will ensure the effective integration of intertheater and intratheater airlift operations, and ease the conduct of intratheater airlift operations. Operationally, the DIRMOBFOR works directly for the JFACC while remaining under the administrative control of the COMAFFOR.* The DIRMOBFOR *provides direction to the AMD* while being *responsive to the AOC director* and the Joint Operation Planning and Execution System (JOPEs). (See JP 3-56.1, *Command and Control for Joint Air Operations*, and AFDD 2, *Organization and Employment of Aerospace Power* for details.)

**The DIRMOBFOR also has a unique airlift responsibility.** Airlift requirements do not always originate in the AOC. They may originate from the theater's Logistics Directorate of a joint staff (J-4) or in the theater's joint movement center (JMC), when established. Consequently, *an essential role for the DIRMOBFOR is to serve as the principal interface between the theater AOC and the theater's J-4 and the JMC* to ensure appropriate prioritization of airlift tasks while balancing requirements and airlift capability.

JTF command and control, like theater C2, is regional in nature but is normally mission driven rather than regionally focused and serves to fulfill the JFC's operational mission using the assigned and attached assets within the JOA. The JFC may, however, require forces not assigned or

## Operation DESERT SHIELD/DESERT STORM

On 2 August 1990, Iraqi President Saddam Hussein launched his invasion against the tiny country of Kuwait. In less than one day, Kuwait was under the control of the Iraqi government. On 6 August, King Fahd of Saudi Arabia asked friendly nations to



defend the kingdom from an anticipated Iraqi invasion. Iraqi troops and tanks were already massing on the northern Saudi Arabian border. King Fahd's request started the largest US airlift deployment in history. In execution of the President's orders, C-5 and C-141 aircraft from the Military Airlift Command (MAC) started deploying troops and cargo on 7 August in support of Operation DESERT SHIELD, a defensive deployment to protect the Gulf states from further Iraqi aggression.

Within the first five days, airlifters deployed five fighter squadrons, the 82nd Airborne, and delivered the Army's 2nd Air Defense Artillery Brigade which was equipped with Patriot and Stinger surface-to-air missiles (SAMs). Within the first six weeks, airlifters had deployed more tonnage than the entire Berlin Airlift. During Phase I, the first 96 days of the operation, airlift missions in support of Operation DESERT SHIELD averaged 65 sorties per day. Even these sortie rates could not keep up with the volumes of cargo and troops that needed airlifting, thus creating a backlog of cargo at aerial ports of embarkation (APOEs). The only solution to this problem and to ease some of the burden off the US Air Force was to get help from the airline partners. USCINTRANS activated Stage I (Stage II activation came during the initiation of hostilities), of the Civil Reserve Air Fleet (CRAF) program, to meet the additional airlift taskings. With the activation of CRAF assets the sortie airlift rates rose to a peak of 127 per day, on average a landing every 11 minutes.

By the end of Operation DESERT STORM, MAC had employed 110 C-5s (90 % of the fleet) and 234 C-141s (80 % of the fleet) to move intertheater requirements. These aircraft alone had flown over 12,800 sorties. They had carried over 66% of all the airlifted cargo, amounting to over 361,000 tons, and airlifted almost 25% of all the sustainment cargo for Operation DESERT STORM. In addition, these aircraft and aircrews moved over 177,000 passengers during both phases of the operation. These two operations reaffirmed airlift's critical role in deployment and sustainment of US military power, for it is the only tool that can deliver considerable combat strength long distances within hours.

**So Many, So Much, So Far, So Fast**

attached to the JTF to accomplish assigned missions. It is in these cases where the effective coordination and integration of augmenting forces become essential. This is particularly true of airlift forces, which, due to their global mission, must be carefully managed to ensure they can be employed in a flexible and responsive manner.

As described above, there are three key players in the airlift C2 process. AMC's TACC exercises global C2 of airlift forces for the AMC commander. The theater AMOCC or AOC, depending on the theater, executes theater airlift support for assets assigned, attached, or made available for tasking, for the theater CINC. The AOC executes theater airlift support for assets attached to or made available for tasking by the JTF commander. Depending upon the situation, the AMOCC or the AOC is responsible for coordination and integration with JTF operations. *The AMD of an AOC or JAOC is the vehicle for C2 of airlift forces within a JTF's JOA* (see AFDD 2 and AFI 13-100 series for details of AOC and JAOC operations). Effective and efficient application of airlift forces demands careful coordination and integration. This can only be achieved through a well defined airlift command and control system and a clearly specified command relationship.

## COMMAND RELATIONSHIPS

**Unity of command** ensures the concentration of effort for every objective remains under one responsible commander—all efforts should be directed and coordinated toward a common objective. While AFDD 1, Air Force Basic Doctrine, acknowledges that aerospace power offers the commander a theaterwide perspective, *there is both a theater and a global aspect to aerospace power*. Herein lies the challenge. *It is vital that unity of command within the theaters be maintained while preserving the inherent global capability of airpower, specifically airlift*. Equally important, *commanders must apply the limited amount of airlift to meet the competing demands of the theaters/JTFs*, understanding more than one theater or JTF may be placing demands on the airlift system at any one time. This is done through two mechanisms: (1) force assignment/attachment and (2) direct support, complemented by a DOD-wide airlift priority system.

## **Force Assignment/Attachment**

**CONUS-based, active duty airlift assets are under the OPCON of AMC/CC for execution of worldwide airlift requirements.** AMC/CC also acts in the role of force provider when regional CINCs or a JFC requires additional airlift augmentation.

CINCs and JFCs may have an enduring mission that requires stationing airlift forces in their AOR or JOA. When this is the case, the Secretary of Defense, with the advice of senior military leadership, may assign a portion of the total DOD airlift fleet to the theater CINC or attach forces to the JTF commander. This is not always an easy decision because those forces assigned or attached for theater or JTF operations will no longer be available for rapid reallocation to meet either the intertheater or intratheater airlift needs of another CINC or JFC.

When the theater or JTF mission requires temporary expansion of airlift capability, augmenting forces may be provided either by AMC or one of the regional commands, but the purpose, duration, and command relationships associated with augmentation will be clearly spelled out in the implementing directive.

## **Direct Support**

**The very nature of our CONUS-based force strategy dictates establishing a mechanism for continuing support of the theater-assigned or JTF-attached forces.** Under these circumstances, airmen employ the concept of “direct support.” Direct support is normally employed under those circumstances where one commander has been given a mission by the NCA and requires support from another commander but does not require command or control authority over the supporting forces. Inherent in this relationship, though, is the authority of the “supported commander” to compel assistance from the “supporting commander.” This is normally the situation when the AMC commander is providing direct support for a regional CINC or JFC. In this case, the AMC-operated airlift assets deploying or sustaining theater forces remain under the COCOM of USCINCTRANS and the OPCON of the TACC commander. TACON will also normally remain with the TACC commander. Under those circumstances when the JFC must exercise TACON to ensure integration with theater air operations, TACON may be delegated to the JFC, exercised by the COMAFFOR/JFACC, and implemented through the DIRMOBFOR on a per sortie basis.



**C-130 aircraft are the backbone for intratheater airlift.**

The airlift C2 system relies on consistent processes and the ability to rapidly expand to meet the unique needs of the task at hand. As an example, when a crisis begins, airmen do not abandon existing C2 processes. Instead, they build upon them. When a JTF is established, a JAOC is established to effect planning, coordination, and execution of the JTF's airlift mission. As explained at the beginning of this chapter, airlift C2 is a complex process that must bring together the elements of intertheater, intratheater, and JTF operations. Close coordination among all elements is essential throughout all stages of an operation—planning, coordinating, tasking, and executing. The following discussion and associated diagrams summarize the concepts of command, control, and coordination. They also reflect the essential command relationships necessary for this system to work effectively.

## **TRANSITION FROM ROUTINE TO CONTINGENCY OPERATIONS**

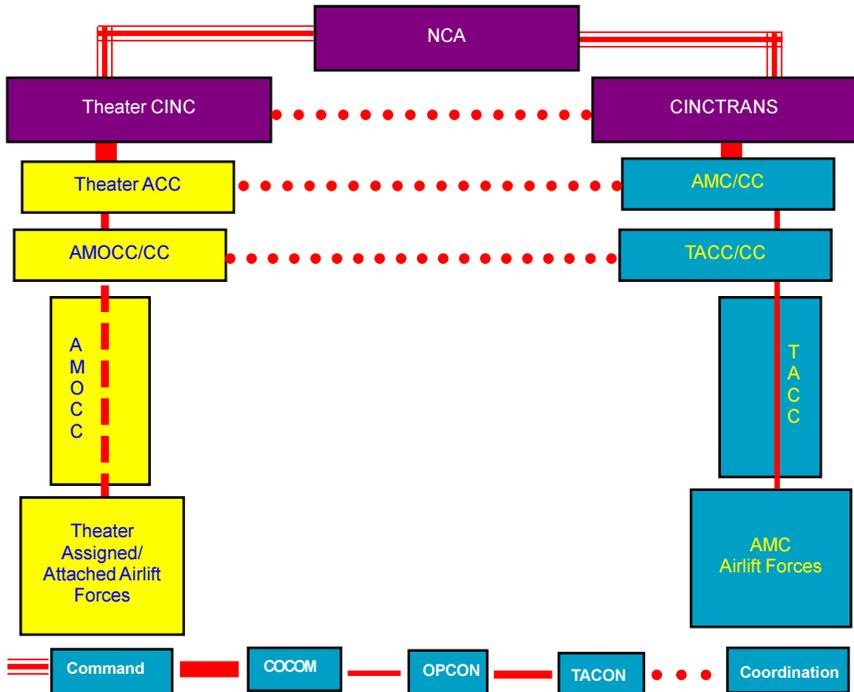
### **Routine Operations**

Command and control over all US military forces flows from the President and Secretary of Defense who, together, constitute the NCA. The unified CINCs exercise COCOM authority over their respectively assigned airlift forces and normally control these forces through the unified command's functional or Service component. The functional or Service component commander normally delegates OPCON of airlift forces to the commander of the appropriate command and control agency. For USCINCTRANS-assigned airlift forces, USCINCTRANS delegates OPCON to AMC/CC who in turn delegates OPCON to Commander AMC TACC.

Theater CINCs with assigned airlift forces exercise OPCON over those forces through the theater air component commander (ACC) who in turn will normally delegate TACON to the theater AMOCC commander, if an AMOCC is established. Figure 3.2 illustrates these routine, day-to-day command relationships for controlling airlift forces.

### Establishment of a Joint Force

When a contingency arises that requires the establishment of a JTF, the supported CINC can function as the JFC or appoint someone to act in this capacity. The JFC is authorized to exercise operational authority over a joint force to accomplish an assigned mission and will determine appropriate military objectives and set priorities for the entire joint force. Although the JFC has great latitude in determining command relationships, the COMAFFOR provides unity of command and normally exercises OPCON over all assigned and attached US Air Force forces provided to a joint force. When the US Air Force provides the preponderance of aerospace forces and has the capability to control and direct their implementation, the COMAFFOR and JFACC will normally be dual-hatted. The

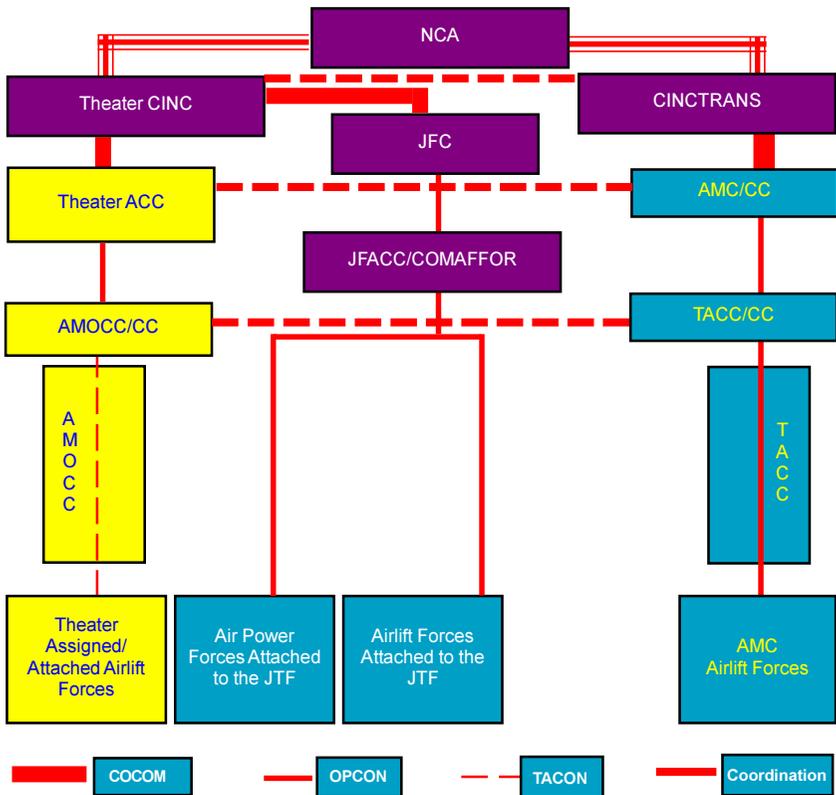


**Figure 3.2. Routine Command, Control, and Coordination of Airlift Operations**

JFC will typically exercise OPCON through the COMAFFOR/JFACC of combat/combat support air forces as well as airlift forces attached to the JTF. Figure 3.3 illustrates these relationships.

### Establishment of a JAOC and Associated Airlift Command Relationships

The COMAFFOR/JFACC requires a C2 organization appropriately sized and tailored to support JTF-related air and space operations. The JAOC is the aerospace operations planning and execution focal point for the JTF and is where centralized planning, direction, control, and coordination of aerospace operations occur for which the COMAFFOR/JFACC has OPCON/TACON.

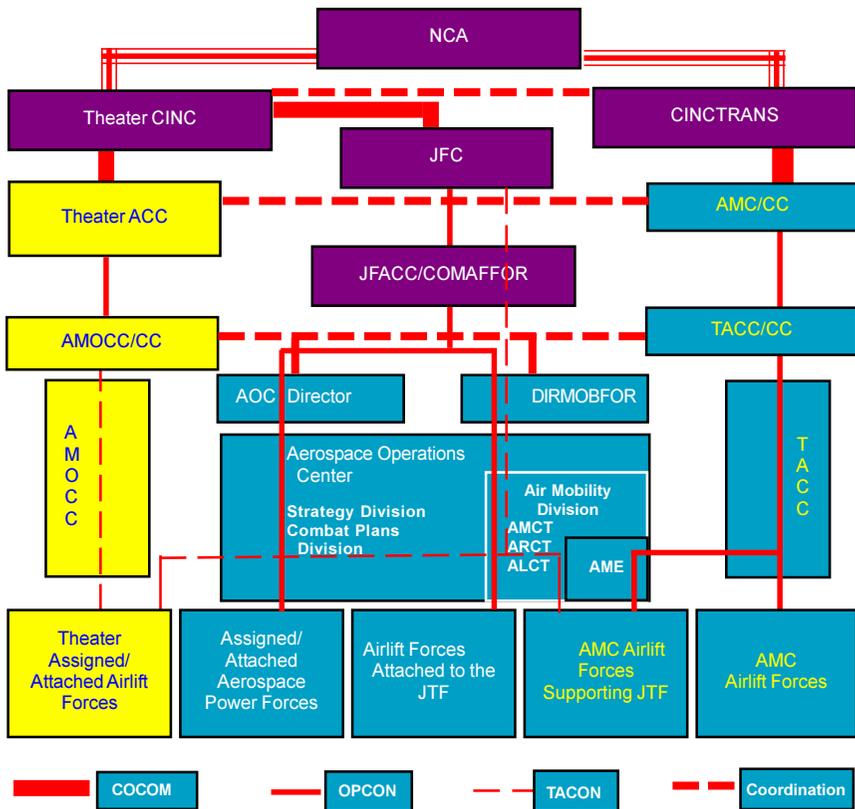


**Figure 3.3. Command Relationships for Airlift Forces Attached to a JTF.**

The COMAFFOR/JFACC relies on the JAOC director to manage and direct the activities of the JAOC. The JAOC director is charged with the effectiveness of joint air and space operations and focuses on planning, coordinating, allocating, tasking, executing and assessing air and space operations in the AOR/JOA based on COMAFFOR/JFACC guidance and DIRMOBFOR coordination. While the JAOC director provides direction principally to the JAOC's strategy, combat plans, and combat operations divisions, the DIRMOBFOR's focus is on the AMD and its primary components. Made up of an air mobility control team, airlift control team (ALCT), air refueling control team, and air mobility element (AME), the AMD, as directed by the DIRMOBFOR, will integrate and direct the execution of intratheater and AMC mobility forces operating in the AOR/JOA in support of JFC objectives. OPCON of AMC airlift forces supporting, but not attached to, the JTF will remain with the AMC TACC/CC and may be exercised through the AME.

A JTF mission will often require airlift augmentation by theater assigned/attached airlift forces and/or AMC airlift forces. The geographic combatant commander can delegate OPCON/TACON of theater assigned/attached airlift assets to the JFC. The JFC should delegate control of these assets to the JFACC/COMAFFOR for tasking which is directed by the DIRMOBFOR.

Figure 3.4 illustrates the arrangement of the JAOC and associated command relationships for airlift operations.



**Figure 3.4. The JAOC and Command Relationships for Airlift Forces**

## SUMMARY

The airlift system consists of three interdependent elements, the intertheater structure, the intratheater element, and the JTF-support component. The challenge of airlift command and control is to bring these elements together to form a global command and control team. Airmen succeed in doing this only through their ability to rapidly expand and contract around a standard set of processes, procedures, and data management systems that contribute to their overall effectiveness. Common concepts and terminology also contribute to the airlift system's ability to rapidly transition from peace to wartime operations. Every effort must be made to preserve this essential capability.



## CHAPTER FOUR

### PLANNING AND SUPPORT CONSIDERATIONS

*Airpower has become predominant, both as a deterrent to war, and--in the eventuality of war--as the devastating force to destroy an enemy's potential and fatally undermine his will to wage war.*

Omar Bradley

#### GENERAL

*Air mobility is best managed as a global system.* The variety of aircraft, methods of delivery, and distances involved make it a very complex planning process due to the limited airlift capacity and availability. *Resolving and deconflicting air mobility requirements create the need to balance efficient and effective air mobility operations.* Planners must be intimately familiar with mobility aircraft capabilities, support requirements, and planning processes to effectively support military operations.

Operational risk management should be practiced at all planning levels from the strategic to the tactical to minimize aircrew, aircraft, and cargo losses. Fact-based risk assessment will enable planners to provide commanders options for evaluating delivery methods and accurately assessing mission risk. Feasibility studies commonly review mission options, analyze enemy and friendly capabilities, evaluate support requirements, and estimate the probability of success at the operational or campaign level. Performing a feasibility study for proposed airlift missions will assist both the planner and commander in risk management and plan development.

Clearly delineated strategic and operational objectives improve the planner's ability to develop strategic, operational, and tactical airlift plans that support operations. Airlift planning is a delicate balance of risk management and competing requirements at the national, theater, and JOA level. The planner must understand allocation and apportionment to assist commanders in managing airlift capabilities.

## **FORCE ALLOCATION – ALLOCATED FORCES**

Airlift aircraft are a limited resource, are normally in high demand, and are usually highly tasked. The day-to-day peacetime allocation of airlift capability is driven by the JCS priority system. **The NCA, in coordination with AMC/CC, allocates a percentage of airlift capability to a specific contingency operation.** Commanders are given a finite amount of resources to accomplish their mission. Geographic CINCs who possess assigned airlift assets allocate their airlift capabilities using the same processes and priorities as the NCA and AMC.



**C-5 aircraft taxiing for takeoff. Proper force allocation is imperative for successful mission accomplishment.**

Force apportionment is the translation of the air apportionment decision into total numbers of sorties by aircraft type available for each operation or task. Apportionment decisions are normally made by the JFC through the JFACC, who delegates this responsibility for airlift to the DIRMOBFOR. Sortie apportionment decisions are continually adjusted based on unanticipated and high priority requirements.

## **TASKING PROCESS**

Once airlift forces are allocated and apportioned, airlift planners can assign airframes based on the commander's priorities. It is important that both planners and commanders understand the distinct phases of the tasking process.

Combatant commanders request airlift based on the tasks to be performed. Deployments are normally managed via a TPFDD, with passengers and cargo normally moved by contingency airlift, while sustainment is normally moved by channel missions. The supported commander, in coordination with supporting commanders and Services, establishes movement requirements. Requirements for JCS exercises or contingencies are scheduled through the JOPES process and a TPFDD is developed. The combatant commander must validate the TPFDD requirements prior to movement. ***USTRANSCOM identifies and schedules intertheater airlift requirements through JOPES. The geographic CINCs perform the same functions for intratheater airlift.*** USTRANSCOM relays the validated TPFDD requirements to their Air Force component (AMC TACC) to plan and execute the required intertheater airlift. The geographic CINCs use their air component command to plan and execute intratheater requirements. Commanders and planners should use the following steps to request and task airlift.

- ✦ ***Requirement Identification.*** The first step in the process is for the user to identify the need to move personnel and/or materiel. This requirement identification is a Service responsibility.
- ✦ ***Validate.*** Combatant command components, supporting combatant commanders, and providing organizations confirm movement requirements to the supported commander and USTRANSCOM. Part of the validation process is determining the best mode of transportation: air, ground, or sea.
- ✦ ***Prioritize.*** The validating authority (normally the supported CINC) should prioritize movements using the JCS priority system. This ensures the proper precedence is placed on each request.
- ✦ ***Allocate.*** Planners determine the number and type of aircraft required based on the validated requirements passed to the Service air components.
- ✦ ***Task.*** Once the proper number and type of airlift assets are identified, the tasked unit is determined. Tasking may be accomplished through message or by air tasking order (ATO).
- ✦ ***Coordinate.*** Coordination between the user, unit, and planners should occur to effectively move the validated/prioritized cargo.

✦ *Schedule.* Many variables affect the scheduling of cargo and passenger movement. These include unit constraints, user restrictions, airfield infrastructure, and diplomatic clearances.

## GENERAL PLANNING CONSIDERATIONS

There are numerous planning factors that need consideration for any airlift mission. **These include: movement planning, airspace control, airfield facilities, weather, intelligence, threat management, air refueling, and integration of AFRC and ANG forces.**

### Movement Planning

**For movement planning purposes, airlift aircraft are either administrative- or combat-loaded.** Movement planners working with the users should select the load method that optimizes airframe utilization and meets user demands.

*Administrative-loading's main purpose is to maximize aircraft passenger and cargo capacities and cost efficiency.* This maximizes the use of weight and volume, ACL, and capacities of airlift assets. Equipment and supplies must be unloaded and sorted before they can be used. Airland is the typical method of delivery.

*Combat-loading arranges personnel and materiel to arrive at their intended destination in an order and condition so they are ready for immediate use.* Combat-loading maximizes the combat readiness of the organizations and equipment being moved and stresses effectiveness.



**Troops preparing for an airdrop mission board a C-141 aircraft.**

## **Airspace Control**

The use of airlift in any theater must be integrated into the airspace control plan and any civilian or international airway control system. Airlift planners should coordinate with the airspace control authority's (ACA) staff and obtain diplomatic clearances to ensure airlift complies with all routes and procedures through any area they may transit. The nature and intensity of the air operation may require the establishment of specific airlift corridors. The corridor routing is coordinated among the JFACC, the DIRMOBFOR, the airlift control team (ALCT), and the air mobility element (AME). These individuals and organizations should take into account all other theater operations and any threats to the airlift forces. The ALCT or theater equivalent provides deconfliction of daily intratheater operations in the JOA. The AME provides the coordination of intertheater assets entering the AOR/JOA. It is the responsibility of the JFACC, as the ACA, to ensure airspace management of airlift operations is sufficient to provide effective and safe operations within the AOR/JOA.

## **Airfield Facilities**

### **Suitability**

En route and destination airfields must be able to support the flow of aircraft. The air component commander should consider runway length and width, and taxiway and ramp dimensions. They should also consider runway surface conditions and load bearing capacity. Factors that impact maximum aircraft on the ground (MOG) and marshalling yard capabilities are another consideration. MOG limits the number of aircraft that can cycle through an airfield in a given time frame and marshalling yards will determine the amount of cargo that can be downloaded and distributed. Pre-planned aircraft arrival slot times should be used to decrease ramp congestion.

### **Access**

A successful airlift operation depends on a network of facilities, diplomatic clearances and useable destinations, which include airfields, ALZs and DZs. Access to theater airspace and airfields throughout the world have become a major limiting factor to airlift operations. In underdeveloped regions of the world, airlift aircraft will often use small austere airfields (SAAFs). SAAFs are unsophisticated airfields, usually with a short

## JOINT TASK FORCE SHINING HOPE



With the advent of Operation ALLIED FORCE and the NATO airstrikes on Yugoslavia in late March of 1999, thousands of ethnic Albanians were driven from their homes in Kosovo by Serbian armed forces. More than 433,000 Kosovars fled their homeland to neighboring Albania seeking protection from Serbian atrocities. Albania, the poorest nation in Europe, was unable to handle this sudden influx of refugees. An immediate

plea for humanitarian assistance, from the Albanian government, went out to the international community.

Joint Task Force (JTF) SHINING HOPE stood up with the mission to conduct foreign humanitarian assistance operations in support of US government agencies and nongovernmental and international organizations engaged in providing humanitarian relief to Kosovar refugees. In order to get the relief supplies to the suffering Kosovars quickly, airlift was the vehicle of choice. C-17s, C-130s, commercial contract carriers, and a myriad of aircraft from other nations began moving relief supplies into Albania and into neighboring Macedonia. The Tirana airport in Albania, which had averaged 15 flights per week prior to the crisis, was suddenly handling over 300. In the first month, more than 15 million pounds of cargo moved through the airport.

JTF SHINING HOPE was not solely a military operation and it provides a great example of the capabilities gained by having a strong partnership between the military and civilian sectors. Commercial B-747s airlifted from Dover AFB, DE, to Tirana, 1.1 million pounds of humanitarian rations capable of feeding approximately 480,000 people. Commercial passenger jets were used to carry refugees from Albania to Western Europe and the United States, alleviating some of the strain on airlift relief efforts into Albania. This use of civilian carriers allowed military airlift aircraft to continue supporting the bombing mission in Yugoslavia while the support for the refugees continued.

The airlift of supplies made it possible for United Nations personnel to care for the 433,000 refugees in Albania and the estimated 226,000 in Macedonia. The speed with which food and shelter is required when a mass exodus occurs makes airlift the best choice for moving goods during the initial stages.

runway, and are limited in one or a combination of the following; taxiway systems, ramp space, security, materials handling equipment (MHE), aircraft servicing, maintenance, navigation aids, weather observing sensors, and communications.

Additional factors a commander or planner should consider include routing restrictions, flow control, terminal instrument procedure restrictions, host-base support, and the airfield's infrastructure. If access to airfields is denied, or if other airfield planning factors become insurmountable, then an alternate plan must be developed.

### **Infrastructure**

Planners assess the capabilities of each airlift facility in the theater. They should identify the need to develop, rehabilitate, and maintain facilities to maximize airlift support to joint operations. Airlifting some support equipment may be necessary to supplement the infrastructure.

This infrastructure should be provided by the theater's Air Force Component Commander (AFCC). Along with providing the needed infrastructure, the AFCC is also responsible for maintaining forward airlift facilities and ensuring MHE capability is available. This includes construction of base support systems which improve both airlift mission capabilities and aircraft survivability. **Planners should start early in reviewing en route support infrastructure when developing mobility operational plans.**

A significant portion of the infrastructure is aerial port operations. **Aerial port operations assure the timely and effective movement of personnel and materiel into and across the theater.** The effectiveness of most airlift operations is dependent on the number and type of aerial ports available within the theater. USTRANSCOM designates peacetime aerial ports. The geographic combatant commander designates wartime and contingency aerial ports in coordination with USCINCTRANS and appropriate host-nation authorities.

### **Facility Support**

Successful airlift operations depend on various support forces. The supported Service component should ensure the movement of personnel and cargo is accomplished to the onload and from the offload sites. When Service component support is unavailable or inadequate for airlift

operations, commanders may request augmentation by global air mobility support system (GAMSS) forces. When an operation involves multiple components, the geographic combatant commander should appoint a single component to coordinate with the host facility, decide resource allocation, and prioritize onload and offload operations. *Logistical support, weather support, intelligence support, communication systems supportability, and radio frequency approvals also should be addressed.*

## **Expansion of the Mobility System**

The GAMSS can be expanded to provide adequate mobility command and control, maintenance, MHE, and aerial port functions to meet TPFDD tasking. In-garrison GAMSS forces can be deployed to augment key locations or establish new en route facilities, as necessary. Airlift planners should plan for additional airlift requirements and have the supported CINC adjust the TPFDD to include GAMSS forces.

## **Weather**

Accurate and timely weather information is an essential factor in conducting all phases of airlift operations. The climatology for an area of interest is an important consideration during the planning of airlift operations. Historic measurements of temperature, precipitation, ceiling, visibility, etc., will impact equipment or supply requirements which should be programmed into the airlift operation plan. During planning and execution of airlift missions, the integration of accurate and timely weather intelligence identifies potential mission limiting or enhancing weather conditions. This intelligence provides planners and operators the opportunity to adjust mission flow, loads, and timing to ensure effective, efficient, and safe mission accomplishment. Additionally, space and atmospheric weather conditions have a significant impact on communications for airlift command and control. Airlift operations are enhanced by anticipating space and atmospheric weather impacts.

## **Intelligence**

Timely and accurate intelligence reduces vulnerabilities and is essential for airlift mission planning. Intelligence personnel provide information about enemy composition, vulnerabilities, capabilities, intentions, and probable courses of action for air movement operations. Critical information should include:

- ★ Latest enemy order of battle data.
- ★ Enemy Integrated Air Defense System capabilities.
- ★ Enemy electronic warfare capabilities.
- ★ Airfield, DZ, or ALZ information for the area of operations.
- ★ Maps, charts, and imagery to support airlift mission planning and execution.
- ★ Location of friendly air corridors.
- ★ Directed energy weapons and nuclear, biological, and chemical (NBC) threats.
- ★ Vulnerabilities to information and information systems that support planning of airlift operations.

### Threat Management

Airlift forces normally employ in permissive environments because they do not have adequate on board defensive system capabilities allowing



**Intelligence information on the local threats is vital when operating in non-permissive environments.**

them to operate safely in medium to high threat environments. *Operations in medium to high threat environments require combat air forces and joint support.* Integrating airlift operations requires extensive planning coordination and intelligence support. Coordination is vital, especially when intertheater airlift missions takeoff before the daily ATO is published.

NBC warfare poses substantial, but not insurmountable, barriers to airlift operations. The threat of a terrorist group or rogue state using nuclear materials or biological/chemical weapons has increased dramatically. **Commanders and the intelligence community must assess enemy capabilities, intent, and available force protection, and US ability to detect, respond to, and defend against NBC attacks, when developing plans for airlift operations in an NBC environment.** Operations in a high threat NBC environment may make it necessary for crews to fly each mission in individual protective garments and comply with specialized directives for aircraft operations survival and mission success. *Planners should consider decontamination requirements, aircrew stress, ground support, implications for CRAF, and alternate mission profiles.*

### **Force Protection**

Providing ground security for airlift assets is every airmen's responsibility. A threat assessment of the FOB needs high priority. Threat assessments enable planners and commanders to develop countermeasures in deployed areas and allow them to adjust operations accordingly. All echelons should plan for airbase defense which may include protection against conventional air-to-surface munitions, NBC weapons, and unconventional warfare forces. Likewise, security forces must be able to detect and respond to a wide variety of threats ranging from unauthorized entry to an overt attack.

### **Air Refueling**

The amount of cargo and distances involved in intertheater airlift operations may make air refueling, necessary. Air refueling may reduce the aircraft's initial fuel requirement, allow for heavier cargo loads, increase aircraft range, and reduce the requirement for ground refueling at the FOB. **Air refueling enables aircraft to overfly bases with limited capability and recover at more suitable airfields.** Planners should also consider the additional airlift capability of air refueling assets.



**Air refueling of airlift aircraft enables greater mission flexibility.**

### **Integration of AFRC and ANG**

Air Force Reserve Command and Air National Guard assets routinely operate with active duty assets. AFRC and ANG forces maintain the same mission ready status as their active duty counterparts. In some cases, the AFRC and ANG may operate different variants of aircraft than the active duty. Planners should be aware of differences in capability and schedule missions accordingly. Planning staffs should include representatives from the AFRC and ANG to enhance planning and mission success.

### **Activation and Integration of CRAF**

The CRAF provides a tremendous airlift capability to US forces. Upon activation, airlift planners must work with the CRAF to ensure integration with military airlift operations. In addition to general planning considerations, special attention should be given to security clearance, intelligence, chemical/biological protection procedures, and support requirements peculiar to commercial operations. CRAF assets cannot be used in areas contaminated by chemical/biological agents or other hostile areas that pose too great a risk for the civilian partners.

## SUMMARY

Planning airlift operations around the globe is a complicated process involving numerous considerations. These range from selecting the most appropriate airlift for an operation to ensuring airlift facilities are capable of supporting an operation. Airlift planners should be thoroughly familiar with each Service component's unique airlift capabilities as well as those of common-user airlift. They should comprehend the nature of the threat to airlift and coordinate effective threat countermeasures. Finally, the entire airlift operation requires detailed planning to include coordination of appropriate airspace control measures, communication, and command and control procedures.

*The function of the Army and Navy in any future war will be to support the dominant air arm.*

**General James Doolittle**

*At the Very Heart of Warfare lies doctrine . . .*

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## Glossary

### Abbreviations and Acronyms

<b>ACA</b>	airspace control authority
<b>ACC</b>	air component commander
<b>ACL</b>	allowable cabin load
<b>AE</b>	aeromedical evacuation
<b>AFCC</b>	Air Force Component Commander
<b>AFDD</b>	Air Force doctrine document
<b>AFPD</b>	Air Force Policy Directive
<b>AFRC</b>	Air Force Reserve Command
<b>ALCT</b>	airlift control team
<b>ALZ</b>	assault landing zone
<b>AMC</b>	Air Mobility Command
<b>AMD</b>	Air Mobility Division
<b>AME</b>	air mobility element
<b>AMOCC</b>	air mobility operations control center
<b>AMX</b>	air mobility express
<b>ANG</b>	Air National Guard
<b>AOC</b>	aerospace operations center
<b>AOR</b>	area of responsibility
<b>APOD</b>	aerial port of debarkation
<b>APOE</b>	aerial port of embarkation
<b>ATO</b>	air tasking order
<b>AW</b>	Airlift Wing
<b>C2</b>	command and control
<b>CINC</b>	commander in chief
<b>CJCS</b>	Chairman, Joint Chiefs of Staff
<b>COCOM</b>	combatant command (command authority)
<b>COMAFFOR</b>	Commander, Air Force Forces
<b>CONUS</b>	continental United States
<b>CRAF</b>	Civil Reserve Air Fleet
<b>DIRMOBFOR</b>	Director of Mobility Forces
<b>DOD</b>	Department of Defense
<b>DZ</b>	drop zone
<b>FOB</b>	forward operations base
<b>GAMMS</b>	global air mobility support system

<b>GPMRC</b>	Global Patient Movement Requirements Center
<b>ITV</b>	in-transit visibility
<b>J4</b>	Logistics Directorate of a joint staff
<b>JAOC</b>	joint air operations center
<b>JCS</b>	Joint Chiefs of Staff
<b>JFACC</b>	joint force air component commander
<b>JFC</b>	joint force commander
<b>JMC</b>	joint movement center
<b>JOA</b>	joint operating area
<b>JOPEs</b>	Joint Operation Planning and Execution System
<b>JP</b>	joint pub
<b>JTF</b>	joint task force
<b>MAC</b>	Military Airlift Command
<b>MHE</b>	materials handling equipment
<b>MOG</b>	maximum (aircraft) on the ground
<b>NATO</b>	North Atlantic Treaty Organization
<b>NBC</b>	nuclear, biological, and chemical
<b>NCA</b>	National Command Authorities
<b>NSS</b>	National Security Strategy
<b>OPCON</b>	operational control
<b>OPLAN</b>	operation plan
<b>OPORD</b>	operation order
<b>OSA</b>	Operational Support Airlift
<b>SAAF</b>	small austere airfield
<b>SAAM</b>	special assignment airlift mission
<b>SAM</b>	special air mission; surface-to-air missile
<b>SecDef</b>	Secretary of Defense
<b>SOF</b>	special operations forces
<b>TACC</b>	tanker airlift control center
<b>TACON</b>	tactical control
<b>TPFDD</b>	time-phased force and deployment data
<b>USAF</b>	United States Air Force

<b>USCINCTRANS</b>	Commander in Chief, United States Transportation Command
<b>USTRANSCOM</b>	United States Transportation Command

## Definitions

**aeromedical evacuation.** The movement of patients under medical supervision to and between medical treatment facilities by air transportation. Also called **AE**. (JP 1-02)

**aeromedical evacuation coordination center.** A coordination center, within the joint air operations center's airlift coordination cell, which monitors all activities related to aeromedical evacuation (AE) operations execution. It manages the medical aspects of the AE mission and serves as the net control station for AE communications. It coordinates medical requirements with airlift capability, assigns medical missions to the appropriate AE elements, and monitors patient movement activities. Also called **AECC**. (JP 1-02)

**aerospace operations center.** The principal air operations installation from which aircraft and air warning functions of combat air operations are directed, controlled, and executed. It is the senior agency of the Air Force Component Commander from which command and control of air operations are coordinated with other components and Services. Also called **AOC**. (AFDD 2 [Referred to as air operations center in JP 1-02])

**aerospace power.** The use of lethal and nonlethal means by aerospace forces to achieve strategic, operational, and tactical objectives. (AFDD 2)

**airdrop.** The unloading of personnel or materiel from aircraft in flight. (JP 1-02)

**airhead.** 1. A designated area in a hostile or threatened territory which, when seized and held, ensures the continuous air landing of troops and materiel and provides the maneuver space necessary for projected operations. Normally it is the area seized in the assault phase of an airborne operation. 2. A designated location in an area of operations used as a base for supply and evacuation by air. (JP 1-02)

**air landed.** Moved by air and disembarked, or unloaded, after the aircraft has landed or while a helicopter is hovering. (JP 1-02) [Air Force term is "airland"; however the definition is the same]

**airlift.** Operations to transport and deliver forces and materiel through the air in support of strategic, operational, or tactical objectives. (AFDD 1)

**air mobility element.** The air mobility element is an extension of the Air Mobility Command Tanker Airlift Control Center deployed to a theater when requested by the geographic combatant commander. It coordinates strategic airlift operations with the theater airlift management system and collocates with the air operations center whenever possible. Also called **AME.** (JP 1-02)

**air mobility operations control center.** If established, it is the theater's single command and control layer for intratheater air mobility operations external to a joint task force (JTF). It provides centralized planning, tasking, scheduling, coordination, and command and control (C2) for assigned and attached intratheater airlift and air refueling forces in the geographic commander in chief's (CINC) area of responsibility (AOR). The air mobility operations control center integrates intertheater and intratheater air mobility operations to efficiently and effectively accomplish the theater air mobility mission and enhance the goal of seamless global mobility. To further these objectives, it validates user requirements, determines force allocations, and provides deployable C2 teams. Also called **AMOCC.** (AFDD 2-6)

**air refueling.** The capability to refuel aircraft in flight, which extends presence, increases range, and allows air forces to bypass areas of potential trouble. (AFDD 1)

**area of responsibility.** 1. The geographical area associated with a combatant command within which a combatant commander has authority to plan and conduct operations. 2. [Definition pertains to naval use only and is therefore not included in this AFDD.] Also called **AOR.** (JP 1-02)

**assault landing zone.** A paved (also called short field) or semi-prepared (unpaved) airfield (also called field landing strip) used to conduct operations in an airfield environment similar to forward operating locations. A semi-prepared assault landing zone (formerly designated as assault landing zones and field landing strips refers to an unpaved assault landing zone. The amount of engineering effort required to develop a semi-prepared assault landing zone depends on the planned operation, the service life needed to support these operations, and the existing soil and weather conditions. Semi-prepared construction/maintenance preparations may range from those sufficient for limited use to those required for

continuous routine operations. Options for surface preparation may include stabilization, addition of an aggregate course, compaction of in-place soils, or matting. Since training airfields are constructed for long-term operations, semi-prepared surface structural requirements are more stringent than for contingency airfields. Stabilization may be required. Also called **ALZ**. (AFI 13-217)

**assign**. 1. To place units or personnel in an organization where such placement is relatively permanent, and/or where such organization controls and administers the units or personnel for the primary function, or greater portion of the functions, of the unit or personnel. 2. To detail individuals to specific duties or functions where such duties or functions are primary and/or relatively permanent. See also **attach**. (JP 1-02)

**attach**. 1. The placement of units or personnel in an organization where such placement is relatively temporary. 2. The detailing of individuals to specific functions where such functions are secondary or relatively temporary, e.g., attached for quarters and rations, attached for flying duty. See also **assign**. (JP 1-02)

**channel airlift**. Common-user airlift service provided on a scheduled basis between two points. There are two types of channel airlift. A *requirements channel* serves two or more points on a scheduled basis depending upon the volume of traffic; a *frequency channel* is time based and serves two or more points at regular intervals. (JP 1-02)

**combatant command (command authority)**. Nontransferable command authority established by title 10, ("Armed Forces") United States Code, section 164, exercised only by commanders of unified or specified combatant commands unless otherwise directed by the President or the Secretary of Defense. Combatant command (command authority) cannot be delegated and is the authority of a combatant commander to perform those functions of command over assigned forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command. Combatant command (command authority) should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. Combatant command (command authority) provides full authority to organize and employ commands and forces as the combatant

commander considers necessary to accomplish assigned missions. Operational control is inherent in combatant command (command authority). Also called **COCOM**. See also **operational control; tactical control**. (JP 1-02)

**command and control**. The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission. Also called **C2**. (JP 1-02)

**coordinating authority**. A commander or individual assigned responsibility for coordinating specific functions or activities involving forces of two or more Military Departments or two or more forces of the same Service. The commander or individual has the authority to require consultation among the agencies involved, but does not have the authority to compel agreement. In the event that essential agreement cannot be obtained, the matter shall be referred to the appointing authority. Coordinating authority is a consultation relationship, not an authority through which command may be exercised. Coordinating authority is more applicable to planning and similar activities than to operations. (JP 1-02)

**core competency**. The basic areas of expertise or the specialties that the Air Force brings to any activity across the spectrum of military operations whether as a single Service or in conjunction with the core competencies of other Services in joint operations. Core competencies represent both aerospace [air and space] power application theory and physical capability represented in a well-trained and equipped air force. (AFDD 1)

**director of mobility forces**. Normally a senior officer who is familiar with the area of responsibility or joint operations area and possesses an extensive background in airlift operations. When established, the director of mobility forces serves as the designated agent for all airlift issues in the area of responsibility or joint operations area, and for other duties as directed. The director of mobility forces exercises coordinating authority between the airlift coordination cell, the air mobility element, the Tanker Airlift Control Center, the joint movement center, and the air operations center in order to expedite the resolution of airlift problems. The director

of mobility forces may be sourced from the theater's organizations, United States Transportation Command, or United States Atlantic Command. Also called **DIRMOBFOR**. (JP 1-02).

**doctrine**. Fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application. See also **joint doctrine**. (JP 1-02)

**Global Patient Movement Requirements Center**. A joint activity reporting directly to the Commander in Chief, US Transportation Command, the Department of Defense single manager for the regulation of movement of uniformed services patients. The Global Patient Movement Requirements Center authorizes transfers to medical treatment facilities of the Military Departments or the Department of Veterans Affairs and coordinates intertheater and inside continental United States patient movement requirements with the appropriate transportation component commands of US Transportation Command. See also **medical treatment facility**. (JP 1-02)

**intelligence**. 1. The product resulting from the collection, processing, integration, analysis, evaluation, and interpretation of available information concerning foreign countries or areas. 2. Information and knowledge about an adversary obtained through observation, investigation, analysis, or understanding. (JP 1-02)

**intertheater**. Between theaters or between the continental United States and theaters. (JP 1-02)

**intertheater airlift**. The common-user airlift linking theaters to the continental United States (CONUS) and to other theaters as well as the airlift within CONUS. These airlift assets are assigned to the Commander in Chief, United States Transportation Command. Due to the intertheater ranges usually involved, strategic airlift is normally comprised of the heavy, longer range, intercontinental airlift assets but may be augmented with shorter range aircraft when required. *[Formerly called strategic airlift]* See also **theater airlift**. (JP 1-02)

**in-transit visibility**. The ability to track the identity, status, and location of Department of Defense units, and non-unit cargo (excluding bulk petroleum, oil and lubricants) and passengers; medical patients; and

personal property from origin to consignee or destination across the range of military operations. Also called **ITV**. (JP 1-02)

**intratheater**. Within a theater. (JP 1-02)

**intratheater airlift**. That airlift assigned or attached to a combatant commander other than Commander in Chief, US Transportation Command, which provides air movement and delivery of personnel and equipment directly into objective areas through airland, airdrop, extraction, or other delivery techniques; and the air logistic support of all theater forces, including those engaged in combat operations, to meet specific theater objectives and requirements. [*Formerly called theater airlift*] (JP 1-02)

**joint air operations center**. A jointly staffed facility established for planning, directing, and executing joint air operations in support of the joint force commander's operation or campaign objectives. Also called **JAOC**. (JP 1-02)

**joint doctrine**. Fundamental principles that guide the employment of forces of two or more Services in coordinated action toward a common objective. It will be promulgated by the Chairman of the Joint Chiefs of Staff, in coordination with the combatant commands, Services, and Joint Staff. See also **doctrine**. (JP 1-02)

**joint force**. A general term applied to a force composed of significant elements, assigned or attached, of two or more Military Departments, operating under a single joint force commander. See also **joint force commander**. (JP 1-02)

**joint force air component commander**. The joint force air component commander derives authority from the joint force commander who has the authority to exercise operational control, assign missions, direct coordination among subordinate commanders, redirect, and organize forces to ensure unity of effort in the accomplishment of the overall mission. The joint force commander will normally designate a joint force air component commander. The joint force air component commander's responsibilities will be assigned by the joint force commander (normally these would include, but not be limited to, planning, coordination, allocation, and tasking based on the joint force commander's apportionment decision). Using the joint force commander's guidance and authority, and in coordination with other Service component commanders and other assigned or supporting commanders, the joint force air component commander will recommend to the joint force commander apportionment

of air sorties to various missions or geographic areas. Also called **JFACC**. See also **joint force commander**. (JP 1-02)

**joint force commander**. A general term applied to a combatant commander, subunified commander, or joint task force commander authorized to exercise combatant command (command authority) or operational control over a joint force. Also called **JFC**. See also **joint force**. (JP 1-02)

**joint task force**. A joint force that is constituted and so designated by the Secretary of Defense, a combatant commander, a subunified commander, or an existing joint task force commander. Also called **JTF**. (JP 1-02)

**medical treatment facility**. A facility established for the purpose of furnishing medical and/or dental care to eligible individuals. (JP 1-02)

**military strategy**. The art and science of employing the armed forces of a nation to secure the objectives of national policy by the application of force or the threat of force. (JP 1-02)

**National Command Authorities**. The President and the Secretary of Defense or their duly deputized alternates or successors. Also called **NCA**. (JP 1-02)

**national military strategy**. The art and science of distributing and applying military power to attain national objectives in peace and war. See also **military strategy**. (JP 1-02)

**national strategy**. The art and science of developing and using the political, economic, and psychological powers of a nation, together with its armed forces, during peace and war, to secure national objectives. See also **strategy**. (JP 1-02)

**operational control**. Transferable command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority). Operational control may be delegated and is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary

to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions. Operational control does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. Also called **OPCON**. See also **combatant command (command authority); tactical control**. (JP 1-02)

**Operational Support Airlift.** Operational Support Airlift (OSA) missions are movements of high-priority passengers and cargo with time, place, or mission-sensitive requirements. OSA aircraft are those fixed-wing aircraft acquired and/or retained exclusively for OSA missions, as well as any other Department of Defense-owned or controlled aircraft, fixed- or rotary-wing, used for OSA purposes. Also called **OSA**. (JP 1-02)

**special air mission.** A mission that uses specially configured aircraft with extensive air-to-ground communications that provides support to the President and Vice President of the United States, Cabinet and congressional delegations, and other senior statesmen. Also called **SAM**. (Air Mobility Master Plan [AMMP])

**special assignment airlift mission.** A mission operated by AMC (other than the 89<sup>th</sup> Military Airlift Wing) to satisfy a requirement needing special pickup/delivery at locations other than those established within the approved channel structure or, to satisfy a requirement needing special consideration because of the number of passengers, weight or size of cargo, urgency, or sensitivity of movement, or other special factors. Also called **SAAM**. (Air Mobility Master Plan [AMMP])

**special operations.** Operations conducted by specially organized, trained, and equipped military and paramilitary forces to achieve military, political, economic, or informational objectives by unconventional military means in hostile, denied, or politically sensitive areas. These operations are conducted across the full range of military of operations, independently or in coordination with operations of conventional, non-special operations forces. Political-military considerations frequently shape special operations, requiring clandestine, covert, or low visibility techniques, and

oversight at the national level. Special operations differ from conventional operations in degree of physical and political risk, operational techniques, mode of employment, independence from friendly support, and dependence on detailed operational intelligence and indigenous assets. Also called **SO**. (JP 1-02)

**strategy**. The art and science of developing and using political, economic, psychological, and military forces as necessary during peace and war, to afford the maximum support to policies, in order to increase the probabilities and favorable consequences of victory and to lessen the chances of defeat. See also **military strategy; national strategy**. (JP 1-02)

**supported commander**. The commander having primary responsibility for all aspects of a task assigned by the Joint Strategic Capabilities Plan or other joint operation planning authority. In the context of joint operation planning, this term refers to the commander who prepares operation plans or operation orders in response to requirements of the Chairman of the Joint Chiefs of Staff. (JP 1-02)

**supporting commander**. A commander who provides augmentation forces or other support to a supported commander or who develops a supporting plan. Includes the designated combatant commands and Defense agencies as appropriate. See also **supported commander**. (JP 1-02)

**sustainment**. The provision of personnel, logistic, and other support required to maintain and prolong operations or combat until successful accomplishment or revision of the mission or of the national objective. (JP 1-02)

**tactical control**. Command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed and, usually, local direction and control of movements or maneuvers necessary to accomplish missions or tasks assigned. Tactical control is inherent in operational control. Tactical control may be delegated to, and exercised at any level at or below the level of combatant command. Also called **TACON**. See also **combatant command (command authority); operational control**. (JP 1-02)

**tactics**. 1. The employment of units in combat. 2. The ordered arrangement and maneuver of units in relation to each other and/or to the enemy in order to use their full potentialities. (JP 1-02)

**Tanker Airlift Control Center.** The Air Mobility Command direct reporting unit responsible for tasking and controlling operational missions for all activities involving forces supporting US Transportation Command's global air mobility mission. The Tanker Airlift Control Center is comprised of the following functions: current operations, command and control, logistics operations, aerial port operations, aeromedical evacuation, flight planning, diplomatic clearances, weather, and intelligence. Also called **TACC**. See also **Tanker Airlift Control Element**. (JP 1-02)

**Tanker Airlift Control Element.** A mobile command and control organization deployed to support strategic and theater air mobility operations at fixed, en route, and deployed locations where air mobility operational support is nonexistent or insufficient. The Tanker Airlift Control Element provides on-site management of air mobility airfield operations to include command and control, communications, aerial port services, maintenance, security, transportation, weather, intelligence, and other support functions, as necessary. The Tanker Airlift Control Element is composed of mission support elements from various units and deploys in support of peacetime, contingency, and emergency relief operations on both planned and "no-notice" basis. Also, called **TALCE**. (JP 1-02)

**theater.** The geographical area outside the continental United States for which a commander of a combatant command has been assigned responsibility. (JP 1-02)

**war.** Open and often prolonged conflict between nations (or organized groups within nations) to achieve national objectives. (AFDD 1)