



AIRLIFT OPERATIONS

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OPR: AFDC/XD (Maj Len K. Murin)

Certified by: HQ USAF/XOX
(Maj Gen Robert E. Linhard)

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Air Force Doctrine Document (AFDD) 30 provides Air Force doctrine for airlift operations and supports basic air and space doctrine. This document is consistent with and complements Joint Pub 4-01.1, *JTTP for Airlift Support to Joint Operations* and Joint Pub 3-17, *JTTP for Theater Airlift Operations*, but its purpose is to promulgate the Air Force perspective on airlift operations. As such, it focuses on how airlift assets can be organized, trained, equipped, and operated to conduct airlift operations. This AFDD applies to all active duty, Air Force Reserve, Air National Guard, and civilian Air Force personnel. This doctrine is authoritative but not directive; commanders are encouraged to exercise judgment in applying this doctrine to accomplish their missions.

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Chapter 1

INTRODUCTION

"Any nation in building an air force cannot think of its fighting planes alone. This air transport service for troops, supplies, ambulances and medical service, and for the transport of artillery and heavy equipment is a necessary adjunct to the maintenance of any efficient fighting force in the field. The speed and range of modern mechanized forces makes it distinctly advisable that at least a portion of their supply columns and agencies travel through the air."

Gen "Hap" H. Arnold (1941)
Commander of Army Air Forces, WWII

1.1. General. The United States' national security strategy hinges upon the capability to rapidly transport military forces to any likely trouble spot. The ability to project substantial combat forces to a regional contingency by means of airlift lies at the heart of a credible conventional deterrent posture. Airlift provides global reach for US military forces and the capability to quickly apply global power to various crisis situations worldwide by delivering combat air and ground forces. The power projection capability that airlift supplies is vital since it provides the flexibility to get rapid reaction forces to the point of a crisis with minimum delay. Accordingly, airlift is viewed as a foundation of US national security at the strategic level and as a crucial capability for operational commanders within a theater. Airlift also supports overall US national policy by projecting American power and influence in a wide range of non-lethal applications of air power. For example, airlift's ability to function in a foreign humanitarian assistance role has greatly increased the prestige and political standing of the United States throughout the world. In many situations, airlift forces have been the primary players and even the sole participants during these operations. Therefore, airlift is not only a vital component of US defense policy, but a critical asset in executing overall national policy and objectives.

1.2. Definition. Airlift is the transportation of personnel and materiel through the air. It is a key mission area of the US Air Force that, along with air refueling, fulfills the Air Force contribution to the joint mobility role. The Air Force provides and manages all common-user airlift for the Department of Defense. In addition to common-user airlift, the USAF also operates task-specialized airlift aircraft primarily designated to support a specific user or set of users. Air Force airlift forces consist primarily of fixed-wing aircraft and assets required to plan, execute, and control airlift operations.

Chapter 2

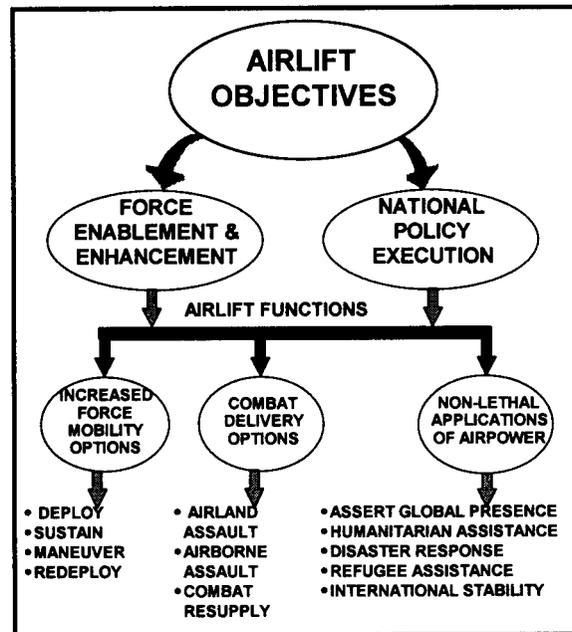
AIRLIFT BASICS

2.1. General. This chapter presents the two overall objectives of airlift and then outlines and discusses the three functions under which all airlift actions may be grouped. Airlift, by its very nature, has a wide variety of applications and specific tasks that can have overlapping goals and command structures. This discussion is intended to highlight the common doctrinal basis of all airlift operations regardless of the organizational or command structure that it operates under.

2.2. Airlift Objectives. The primary objectives of airlift are twofold. The first is to enable and enhance the global power of military forces by supporting and executing the plans and operations of combatant commands and Services. Airlift's second objective is to directly support US national policy and overall strategy. It can accomplish this through support of combat operations, or can directly carry out national policy objectives in a wide range of non-lethal applications of air power, across the globe, as directed by the National Command Authority (NCA). The recent proliferation of regional power competitions around the world has greatly increased the importance airlift plays in executing national policy and maintaining stability. Together, these two objectives of airlift are key in the projection of US national power across the full spectrum of military and political actions.

2.3. Airlift Functions. Airlift performs three basic functions in support of airlift objectives. First, airlift provides rapid and flexible force mobility options that allow military forces to respond to and operate in a wider variety of circumstances and time frames. Second, airlift provides the unique ability to deliver and sustain specially matched combat forces (such as airborne, ranger, special operations, or light infantry) directly into battle from distant bases. This provides Joint Force Commanders (JFCs) an added dimension of applying combat forces. Third, airlift forces are key to the execution of a wide range of non-lethal military operations such as foreign humanitarian assistance, domestic disaster response, or arms control assistance. **Figure 2.1.** illustrates the breakdown of the objectives and functions of airlift.

Figure 2.1. Airlift Goals.



2.3.1. Force Mobility Options. Airlift provides air and surface forces the latitude to operate in a broader range of situations. Airlift can project power by rapidly transporting personnel and materiel with limited regard to geographic obstacles when compared to other transportation means. This elevates the ability of combat forces to effectively respond to any situation by increasing their responsiveness and flexibility. This global reach capability applies the principles of maneuver and economy of force by providing for the more complete use of available combat forces. In a crisis or contingency situation, the rapid deployment of combat forces can deter a violent situation or limit the scale of the hostilities. An example of this occurred in October of 1994 when Iraqi forces made threatening force deployments toward the Kuwaiti border. The US responded with Operation Vigilant Warrior. During this operation airlift made possible the rapid projection of large numbers of Air Force tactical aircraft units, combat troops, and their required support to Kuwait, effectively preventing any aggressive action by Iraq. Airlift also supports forces in areas where they cannot be sustained by other transportation means, allowing these forces to utilize a wider range of deployment and maneuver options. The famous Burma-China airlift operation over the "hump" during World War II and the resupply by airlift of the XXVIII Airborne Corps during the Gulf War are excellent examples of this mobility option. Over the years, airlift has on many occasions provided the initial projection or reinforcement of combat forces into a theater, and it has been a critical element of the JFC's scheme of maneuver. The Gulf War was such an occasion. Adding to the options available to a JFC, specialized airlift assets are designated to provide special operations forces (SOF) access to denied territory to conduct clandestine and covert missions. Aeromedical airlift, another example of specialized airlift, provides JFCs with quick reaction, common-user movement of medical patients. Redeployment of forces by airlift after an operation is over assists in the expeditious reconstitution of forces and increases readiness.

"The role of modern combat airlift, then, is to airlift combat forces and all their battle equipment, in the size and mix required--with the greatest speed--to any point in the world, no matter how remote or primitive, where a threat arises or is likely to erupt."

Gen Howell Estes, Jr
Commander, Military Air Transport Service (1964-69)

2.3.2. Combat Delivery Option. Airlift is capable of delivering forces directly into battle and sustaining them either by airland delivery or by aerial delivery. The capability to deliver combat forces allows commanders to directly assault enemy positions with a freedom of action not available by any other means. This use of airlift highlights the basic principles of mass, surprise, and offensive, delivered directly to the objective. This capability gives planners greatly increased options to respond to crisis situations. Past operations effectively employed this capability on several occasions and it continues to be an important aspect of contingency and crisis reaction planning. Examples of airlift delivering combat forces directly into battle are the Israeli airland assault at Entebbe International Airport in Uganda in 1976, the airborne operation at Point Salinas in Grenada during Operation Urgent Fury in 1983, and the parachute assault on Rio Hato Airfield in Panama by airborne forces during Operation Just Cause in 1989. In some cases airlift may be the only means available to sustain forces engaged in combat operations. A famous example of this is the combat resupply of Khe Sanh firebase in Vietnam during the Tet offensive of 1968.

2.3.3. Non-lethal Applications of Air Power. A critical mission of airlift forces is to provide the means for executing US national policy in military operations where the primary goal is not application of combat force. In this type of operation, airlift often functions as the focus and sometimes as the sole participant in the operation. A famous example of airpower executing national policy in a non-lethal manner is the Berlin airlift. The Berlin airlift, known as "Operation Vittles," sustained the city of Berlin for over a year in the face of a Soviet blockade, thus maintaining Western presence in the strategic city. Without the airlift option to counter the blockade, the US could have been pushed into one of two alternatives: forcibly breaking the blockade by military action, or abandonment of US policy by letting the city fall to Soviet forces. Airlift, in this case and in numerous others, has demonstrated American resolve and influence around the globe. Some examples of this are aid to the Kurdish refugees in Iraq in 1991, Bosnian relief effort started in 1992, humanitarian aid to Somalia in 1992, emergency relief response to Rwanda in 1994, and the intervention to restore democracy and political stability in Haiti in 1994. As the world situation becomes more competitive among regional powers, airlift will continue to play an increasing role in maintaining stability and exerting US influence. The presence of US airlift aircraft sends a clear message that a certain area or region is important to American interests and demonstrates the will and ability to act upon those interests. In this manner, airlift assets provide a level of presence and engagement of US forces in an area where it may not be politically viable nor wise to exhibit more threatening combat forces. Around the globe, in nearly every country in the world, the symbol of American power and determination has been represented by the US flag on airlift aircraft responding to an international need or crisis. The statement that these operations make about US capability and purposefulness is equally clear to both friends as well as potential enemies. Airlift's ability to build American prestige and to generate international good will should not be underestimated in executing US national policy.

"Force projection dictates the need for a balanced mobility force of airlift, sealift, and prepositioning programs that will permit a rapid, independent response to a crisis at any location in the world. These mobility programs should be capable of sustaining independent operations in the crisis area until the conflict can be terminated on terms favorable to the United States."

Gen James Allen

CINC, Military Airlift Command (1981-83)

2.4. Mobility Framework. Airlift forms one part of the long-range force projection equation. The other parts are (1) forward deployment of forces, (2) pre-positioning of equipment, (3) sealift, and (4) aerial refueling capability. In regions where the threat is well established or substantial, forward-deployed forces may be used for a portion of the combat force requirement. This method was used extensively in Europe, and to a lesser extent, on the Korean peninsula. Forward deployment of forces is an expensive option and one that may no longer be politically feasible in many areas. The option of pre-positioning equipment in theaters only requires personnel be airlifted to locations where their heavy equipment is already in place, either in land storage or on ships. This option is used in Southwest Asia to fulfill United States' commitment to the region. Both options presuppose that the crisis area is identified well before a response is required. Airlift provides the capability to deploy, sustain, and reinforce combat forces anywhere on the globe. However, it can be limited by total numbers, weight, and volume of heavy combat units as well as the distance to be traveled. Due to these limitations, sealift plays a major role in the deployment and sustainment of heavy forces. Efficient, fast sealift vessels designed for military mobility requirements are critical in filling the enormous lift demands of any large-scale deployment. During the gulf war the great majority of the heavy combat units were moved by sealift. Aerial refueling platforms also play a vital part in the force projection equation. They fulfill mobility requirements by deploying shorter range aircraft into theater as well as providing a portion of the total airlift capacity. Additionally, aerial refueling assets increase the capabilities of airlift assets by extending their effective range and payload, reducing en route transit time, and easing the workload on intermediate staging bases. Accordingly, the overall mobility picture should be formulated considering all parts of the power projection framework including, airlift, forward-deployed forces, prepositioned equipment, sealift, and aerial refueling assets.

2.5. Airlift Planning Focus. Airlift should be incorporated in deliberate as well as crisis action planning to maximize its global power enhancing effects and ensure operational success. Normally, during the first hours of a contingency plan execution or crisis reaction, it is imperative to get combat forces in place in order to consolidate positions and to protect American interests and lives. Airlift's ability to rapidly project forces worldwide makes it a prime focus of initial crisis action as well as contingency planning. Often airlift's first response is to deploy Air Force tactical fighter units to the theater to provide a credible defensive deterrent. During Desert Shield, airlift's initial task was to deploy F-15 units to the Saudi Arabian peninsula to maintain air superiority over the critical and vulnerable force buildup.

2.5.1. Due to its rapid power projection capability, airlift's most critical effect is felt in the first few days of an operation. Airlift is particularly indispensable during the initial days of a crisis reaction since its role as a global power enabler in many cases can not be replaced or even supplemented by any other means of transport. The C-17 for example, with its direct delivery capability, can carry the full array of Army, Marine Corps, and Air Force equipment into small austere airfields. This capabil-

ity permits the intercontinental transport of forces and equipment from their main operating bases to positions close to their battlefield location with a minimum of delay. The aggressive use of airlift early in a contingency, especially in audacious plans (such as forcible entry operations, blocking action insertions, or rapid flanking movements) maximizes the combat power of available military forces (with a commensurate increase in risk to the force).

2.5.2. Planners must determine which forces should be used, what sequence they should arrive, and what level of risk commanders are willing to expose the airlift force. Additionally, deployed forces may have to be self-sufficient during the early stages of an operation since the logistics system may not be in place. Initial airlift forces should deploy with adequate accompanying supplies to maintain operations, until the forward location is capable of supporting operations, and a resupply pipeline is established. As the contingency matures, airlift continues its support of military operations as an important element of the overall mobility and logistics system. The operation, contingency, or campaign objective, and the nature of the enemy threat should be the paramount considerations in planning the employment of airlift forces.

2.6. Airlift Intelligence Support. A responsive intelligence capability is essential for planning and executing airlift operations across the range of military operations. Data bases must be maintained on airlift associated threats. Another data base that is potentially more critical for an airlift operation is one that outlines the airlift-associated support capability available in the theater as well as along the expected transit routes. This data base should answer questions such as availability of fuel, maintenance support, loading capability, crew rest facilities, and other infrastructure that may be necessary to an airlift operation. Additionally, intelligence may be able to estimate, from a political analysis of a nation, the level of host-nation support that the country might be expected to offer to the US. During contingencies and crisis responses, threat status must be provided to crews prior to and during airlift missions. At the same time, a situation awareness or enemy threat posture display must be available at airlift command and control (C²) nodes for force allocation, base employment, and other crisis management actions. Airlift intelligence elements rely on national, joint, and service intelligence components' accurate and timely information. Airlift units in turn must plan for and clearly state their requirements to higher headquarters to ensure responsive and appropriate intelligence is received for the airlift mission.

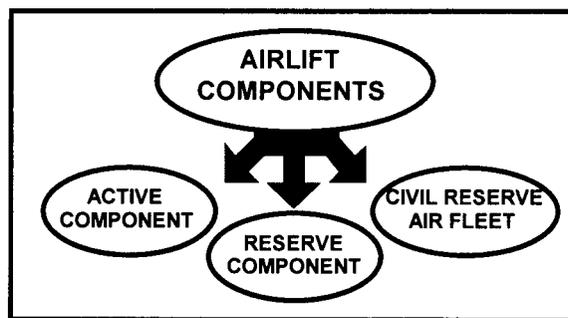
Chapter 3

AIRLIFT CATEGORIES

3.1. General. This chapter examines the organizational components, functional classifications, and delivery modes associated with airlift operations. In this manner the airlift force can be analyzed with regard to its source of assets, basic use of the airlift operation, and the type of delivery the airlift operation performs.

3.2. Airlift Components. Air Force airlift forces are comprised of three organizational components: active, air reserve, and Civil Reserve Air Fleet (CRAF). All of these components contain characteristic operational and support capabilities. A thorough understanding of the advantages and disadvantages of each component is necessary to use these limited airlift assets wisely. **Figure 3.1** illustrates the three components which contribute to Air Force airlift forces.

Figure 3.1. Contributors to Airlift.



3.2.1. Active Component. Active component airlift forces are attached to various Air Force Major Commands (MAJCOM). The main contribution of these active forces is to perform the core military airlift missions that require specialized training, equipment, or aircraft physically capable of accommodating the dimensions of military equipment and vehicles. Commanders have full access to their active component assets at all times and the airlift forces are routinely ready for the rapid deployment of forces worldwide. A drawback of active forces is the relatively higher expense of maintaining a pool of available airlift capacity on a full time basis as compared to the reserve and CRAF components which function on a part time basis until needed.

3.2.2. Air Reserve Component (ARC). ARC airlift forces are established in both the Air Force Reserve and the Air National Guard. Mobilized ARC airlift forces normally fall under the OPCON of one of the Air Force Component Commanders (AFCC), usually Air Mobility Command (AMC) or Air Combat Command (ACC), unless they are temporarily transferred through a change of operational control to a theater CINC. ARC airlift forces execute airlift missions in support of US requirements on a daily basis. Additionally, a main contribution of the ARC airlift forces is to maintain readiness to augment the active forces as required. This approach provides an increased war reserve capacity of airlift at a lower per-unit cost relative to the active component. ARC airlift personnel usually have a high experience level and generally maintain the same capability to perform the core military missions as the active forces. Access to ARC forces is provided through a system of volunteerism or through formal activation of units. Therefore, a portion of ARC forces are mission ready and available at all times under volunteerism. However, a protracted deployment, as might be

expected during a major regional conflict (MRC), will usually require activation of ARC units. A main consideration of this component is the additional response time and delays inherent in the political decisions and administrative actions required for the activation of ARC units during a large-scale or lengthy deployment.

3.2.3. Civil Reserve Air Fleet Component. The CRAF program provides commercial augmentation of military airlift capability during contingency or crisis operations. Participation in the CRAF program is voluntary. Carriers who sign up for any of the three specified stages are subject to call-up based on a contractual agreement with the Department of Defense (DoD). Commercial carriers commit specific aircraft, crews and their support assets to the CRAF program to support mobilization. In return for their voluntary pledge of aircraft to the program, carriers are eligible to partake in a share of the government's peacetime airlift business. Peacetime commercial missions are operated daily under business agreements and reimbursement rates specified in a preset contract.

3.2.3.1. Stage I. USCINTRANS, with SECDEF approval, has the authority to activate Stage I during a national security crisis, short of a declared defense-oriented emergency, when expanded civil augmentation of military aircraft activity is required. Contractually, carriers have 24 hours to make their aircraft and crews available after notification of specific mission requirements. Only Long-Range International Segment aircraft are committed to Stage I.

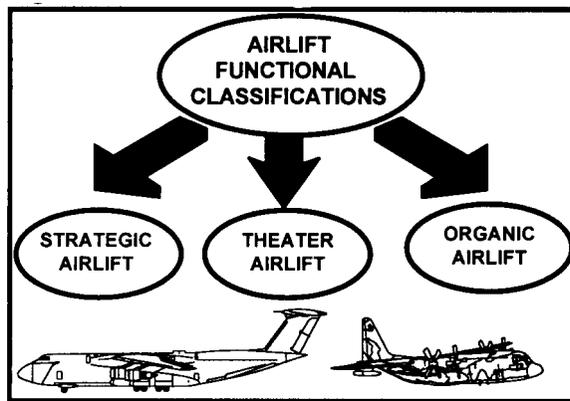
3.2.3.2. Stage II. USCINTRANS may activate Stage II with approval from SECDEF if an airlift emergency is such that Stage I CRAF aircraft will not fully support AMC's needs. Contractually, carriers have 24 hours to make their aircraft and crews available after notification of specific mission requirement. (Exception: Carriers providing aeromedical aircraft have 48 hours to make them available due to configuration requirements). Stage II has aircraft from all segments: Domestic, Long- and Short-Range International, Alaskan, and Aeromedical.

3.2.3.3. Stage III. Stage III will be activated by USCINTRANS, with approval by the SECDEF, in time of war or during a defense-oriented national emergency declared by the President or by the Congress of the United States. Stage III may also be activated in a national defense-oriented situation of a declared defense-oriented national emergency. Contractually, carriers have 48 hours to make their aircraft and crews available after notification of specific mission requirements. All segments of the CRAF are committed to Stage III.

3.2.3.4. CRAF airframes are commercial aircraft designed for civilian air movement and are generally not compatible with larger sized military equipment. These commercial aircraft are normally more productive, in terms of gross capacity per air mile, than their military core airlifter counterparts when operating on developed route structures. However, they can be severely limited when operating at underdeveloped bases within a theater. These limitations result from the necessity of more specialized onload and offload equipment that may not be available at many theater bases. As a result, CRAF assets provide the majority of passenger air movement and a much smaller percentage of cargo airlift. A main factor limiting CRAF use during a MRC is that the CRAF crews are not required to enter threatening environments.

3.3. Airlift Classifications. There are three functional classifications of airlift--strategic, theater, and organic. Common-user strategic and theater airlift are provided by the Air Force. Organic airlift, is Service, component, or MAJCOM specific, and generally not available for common use. These classifications depend on the mission the airlift asset is performing and not on the type of airframe itself. **Figure 3.2.** illustrates these classifications.

Figure 3.2. Functional Applications of Airlift.



3.3.1. Strategic Airlift. Strategic airlift forces provide the airbridge that links overseas theaters to the continental United States (CONUS) and to other theaters. Additionally, they perform the airlift within the CONUS. Due to the intercontinental ranges usually associated with the mission, these airlift aircraft are normally longer range, larger capacity airlift airframes but may be augmented with shorter range aircraft when required. The available airlift capacity that these forces provide is apportioned among the Services and joint forces on a common-user basis in accordance with guidance from the NCA. USCINCTRANS has combatant command (COCOM) of strategic airlift forces and executes OPCON through the Commander, Air Mobility Command and Commander, Air Combat Command for strategic airlift operations. The Secretary of Defense, through the Chairman of the Joint Chiefs of Staff (CJCS), is the apportioning authority. A national level, Joint Transportation Board (JTB) assists and makes recommendations to the NCA on the apportionment of all strategic transportation assets to include airlift.

3.3.2. Theater Airlift. Theater airlift forces provide common-user airlift of personnel and materiel within a CINC's area of responsibility (AOR) and occasionally outside the AOR. The theater airlift mission generally requires aircraft capable of operating under a wide range of tactical conditions including austere, unimproved airfield operations. Until recently, these capability requirements of theater airlift have resulted in smaller, shorter range aircraft designs (such as the C-130 or C-27) compared to the larger capacity, longer range airlifters (such as the C-5 or C-141). It should be noted that new airlift designs, such as the C-17, are bridging the gap between longer range strategic airlift requirements and fully capable theater airlifters. Theater airlift assets are normally either assigned or attached to a specific theater CINC as required by the situation. Theater airlift is a joint force asset whose useful capacity is apportioned on a common-user basis in accordance with guidance from the appropriate Joint Force Commander. This apportionment is usually recommended by a joint logistics staff which establishes a theater Joint Transportation Board (JTB), and it is approved by the JFC. The theater CINC will exercise COCOM of assets that are assigned in the Forces For Unified Commands Memo, or OPCON if the theater airlift forces are attached by the SECDEF.

3.3.3. Organic Airlift. Organic airlift forces are those assets that are an integral part of a specific Service, component, or MAJCOM and primarily support the requirements of the organization to which they are assigned. It is important to note that organic airlift forces are not common-user assets and normally only serve in that role by exception. These forces do not directly support the common-user airlift system except when they are used to reduce extraordinary workload demands. Even though organic airlift only occasionally fulfills a common-user role, airlift planners should nonetheless

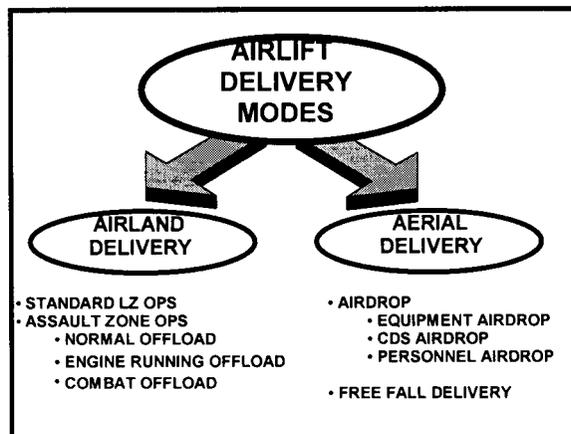
attempt to coordinate the use of organic assets so any excess airlift capacity can be utilized. Organic airlift includes Army aviation assets, Marine and Navy C-130s, Air Force Operational Support Airlift (OSA), and SOF fixed-wing and vertical lift assets designed for denied territory airlift. The specific MAJCOM commander, theater Service commander, or functional component commander normally retains OPCON over organic airlift assets.

3.3.3.1. Operational Support Airlift. OSA aircraft are organic airlift assets assigned either to an individual Combatant Commander, and referred to as CINC Support Airlift (CSA), or assigned to the secretaries of the military departments, and called Service Support Airlift (SSA). The purpose of OSA is to provide the timely movement of limited numbers of critical personnel and cargo for the assigned user. This purpose dictates that OSA aircraft are generally smaller sized business type airframes such as the C-21, C-20, and the C-12. Those aircraft assigned to the combatant commanders perform theater airlift or other missions in direct support of theater assigned combat units. SSA aircraft satisfy Service secretarial requirements supporting the function of preparing forces for war. The controlling combatant commander can use CSA aircraft as a common-user asset. These assets have been used effectively for the common-user transport of small amounts of time-critical cargo and personnel within a theater. For example, during Desert Storm, C-21s distributed the daily air tasking order to various desert locations and transported key personnel between various headquarters. Regardless of its limited availability and operational limitations, CSA aircraft should supplement the joint use airlift system (even if only on a per sortie basis) wherever possible. For example, many CONUS OSA flights are apportioned and scheduled by the Tanker/Airlift Control Center (TACC) through its Operational Support Airlift Division and provide airlift to joint users on an opportune basis.

3.3.3.2. Denied Territory Airlift. The Air Force is custodian to specialized airlift units designed to provide SOF access to denied territory. The mission of these units is to conduct infiltration, resupply, and exfiltration; and aerial refueling of SOF assets under clandestine or covert conditions. These forces are designated to provide the primary airlift support to SOF elements. When employed, these airlift forces normally fall under a special operations functional component within a joint operating area. These forces will not normally be used by a JFC as conventional airlift for common users. For more detailed information on the mission and various command and control structures for denied territory airlift operations, see AFDD 35, *Special Operations*.

3.4. Airlift Delivery Modes. The final category defining airlift is the type of delivery mode it uses to accomplish its taskings. Airlift uses two basic modes to deliver personnel and equipment: airland delivery and aerial delivery. Each mode has a number of procedural applications and methods. The method chosen is based upon a variety of planning factors; these include operational objective, user requirements, available landing zones (LZs) and drop zones, weather, terrain, enemy threat systems, and aircraft capability. **Figure 3.3.** illustrates the basic modes of airlift delivery.

Figure 3.3. Methodology of Airlift Delivery.



3.4.1. Airland Delivery Operations. Airland delivery is the mode where aircraft land at an objective area and discharge their load during a ground operation. It is the most efficient and the least expensive way to use available airlift capacity. Therefore airland is normally, conditions permitting, the preferred mode of delivery. Airland operations include normal, everyday airlift operations to well-established airbases (standard LZ operations) as well as tactical airland deliveries to unimproved, dirt strip LZs (assault zone operations). One variation of airland delivery is an engine running offload and onload, where the delivering aircraft reduces its time on the ground by eliminating engine shutdown and startup. Another more expeditious variation of airland delivery of cargo is the combat offload method where military airlift aircraft can offload their cargo while taxiing, further reducing the aircraft ground time and reducing the requirement for materiel handling equipment (MHE) at the LZ.

3.4.1.1. The advantage of airland delivery is that personnel and cargo arrive with less risk of injury, damage, or loss (when compared to aerial delivery methods). During airland operations, combat units arrive at the landing zone intact and consolidated, as opposed to an aerial delivery where the equipment and personnel may be widely dispersed. Additionally, airland deliveries can usually handle larger loads with less specialized preparation of cargo and personnel. Airland operations allow the backhaul (transportation of a load on the return trip) of critical cargo and personnel such as wounded personnel, high priority repairable equipment, and enemy prisoners of war.

3.4.1.2. Airland operations may be limited by the availability of suitable landing zones in the objective area. Additionally, airland operations require adequate MHE at the landing zone to conduct offload operations. An important consideration of the airland operation is the requirement for the aircraft to spend substantial ground time on the LZ (during landing rollout, taxi, offload, and takeoff), greatly increasing exposure to objective area threats.

3.4.2. Aerial Delivery Operations. Aerial delivery is the mode of delivering forces or supplies to an objective area from an airborne platform. There are several procedural methods for delivering personnel, equipment, or supplies from an airborne platform. Most of these methods involve the use of parachutes to deliver loads to the ground such as heavy equipment airdrop, container delivery system airdrop, and personnel airdrop. Another aerial delivery method, free fall delivery, drops relatively small items such as meals-ready-to-eat without the use of a parachute. Aerial delivery allows commanders to project and sustain combat power into areas where a suitable landing zone or a ground

transportation network may not be available. This delivery option maximizes the principles of surprise and maneuver, due to the speed with which a combat force can be inserted into an area and the vast number of potential objective areas that can be used for these operations. Additionally, aerial delivery operations minimize the duration of exposure of the airlift aircraft to threats in the objective area. Disadvantages of this mode of delivery include reduced airlift capacity due to the additional weight and configuration of specialized equipment, as well as a requirement to maintain aircrews and rigging personnel qualified in the various aerial delivery procedures. Aircraft range may decrease because of the low-level ingress and formation tactics normally associated with this mode of delivery. Aerial delivery methods also expose the delivered loads to a higher risk of damage or destruction than the airland method due to obstructions on the DZ, chute malfunctions, hard landings, or off DZ drops. Airdropped personnel may be exposed to increased risk of injury from both combat and noncombat related actions for the same reasons. After successfully hitting the drop zone, additional time is required for airdropped personnel to organize and regroup, since they are most likely dispersed over a relatively large area.

3.4.2.1. Aerial delivery operations can be high-risk undertakings due to two factors. First, the airlift force may be vulnerable to attack en route to the objective area and while delivering its combat force. Secondly, forces specially designated (equipped and trained) for aerial delivery (e.g., airborne, ranger, SOF, and light infantry) are generally lightly armed relative to other types of military forces. Therefore these aerially delivered forces may be dependent upon the advantages of surprise and position to make up for a lack of heavy firepower. Incorrect intelligence or poor execution of the operation may negate the advantages of surprise and position and leave the aerially delivered combat force in an untenable position. Therefore, the strategic gain expected from such an operation should be at least commensurate with the risk to the airdropped force. A good illustration of this was Operation Market-Garden in Europe, occurring in September of 1944. Allied airborne forces were airdropped behind enemy lines in an attempt to gain control of several key bridges needed to open a corridor into the heart of industrial Germany. A powerful mechanized force was to initiate a break in the German lines and consecutively link up with each bridgehead, producing a wide avenue of attack to be exploited by follow-on Allied forces. Until the linkup occurred, airlift would sustain the forward-deployed airborne troops by means of airdrop. Had the operation been successful, the war in Europe could have been substantially shortened. Even though the operation failed to achieve its objective due to the failure of mechanized forces to link up with the paratroopers' lodgment, the planners felt that the projected benefits justified the inherent risk to the aerially delivered forces.

3.4.2.2. Given its inherent risks, the aerial delivery method should only be used when the potential success of such operations would result in a distinct and significant benefit to friendly forces. Effective airdrop operations should be closely integrated into the JFC's overall campaign plan. The aerial delivery operation must be carefully designed to exploit its unique strengths and gain a substantial advantage over an opposing force. These advantages will generally be based upon the high degree of freedom of maneuver and element of surprise that aerial delivery affords.

Chapter 4

ORGANIZING AND EQUIPPING AIRLIFT FORCES

4.1. General. Air Force airlift forces have a dual nature. They are both air operating forces and an element of Service and joint logistics systems. They are organized, trained, and equipped to perform the task of providing the best possible common-user airlift to joint forces across the entire range of military operations. The useful capacity of airlift forces should be apportioned among appropriate users in ways that make sense within the context of overall logistics requirements. Airlift command relationships reflect this dual nature by assigning operational authority to air component commanders, while available airlift capacity is apportioned at the appropriate level of Service or joint logistics systems according to guidance set by the JFC.

"Obtaining additional air transport mobility--and obtaining it now--will better assure the ability of our conventional forces to respond, with discrimination and speed, to any problem at any spot on the globe at any moment's notice. In particular, it will enable us to meet any deliberate effort to avoid our forces by starting limited wars in widely scattered parts of the globe."

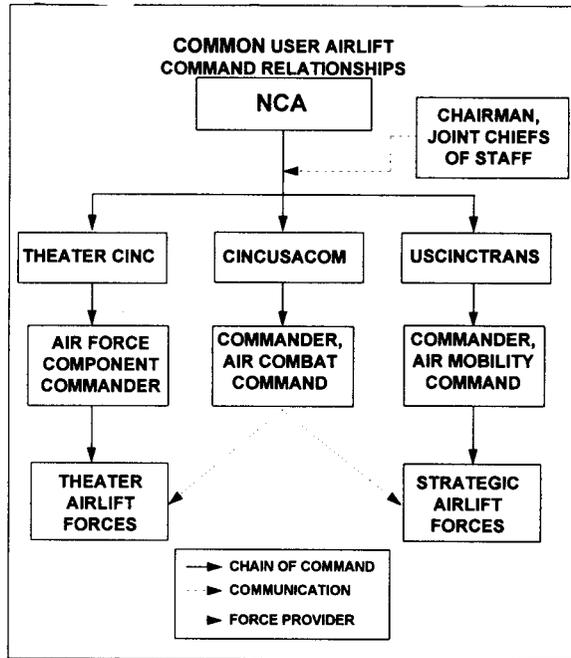
President John F. Kennedy
State of the Union speech (1961)

4.2. Airlift Requirements. Estimating total airlift requirements for the United States is difficult because of the many factors contributing to the overall equation. Foremost among these factors are national security policy goals and objectives, regional stability factors, international political factors, and the size and sophistication of the likely threats. The distance to likely crisis locations and availability of en route structure and transportation nodes in the theater will also affect the optimum amount and type of airlift. Finally, budget constraints place upper limits on airlift forces. Since these factors are difficult to assess, efforts to quantify airlift requirements will at best provide realistic estimates rather than exact predictions of total requirements. Regardless, the requirements must be carefully evaluated by comparing the expected contingency response commitments (including total number of passengers, quantity and weight of cargo, as well as special considerations such as direct delivery) with the available airlift capability. Airlift planners have based operational and force-structure estimates and plans on a reasonable maximum requirement and then adjusted for budgetary constraints. Airlift, because of its finite nature, must be coordinated within the transportation system to achieve the proper concentration of air and surface forces necessary at a given time and location. Therefore, any discussion of airlift requirements should address the availability and use of all parts of the long-range force projection equation (sealift, aerial refueling, prepositioning of equipment, and forward basing of forces). Assuming the availability of airlift assets will be less than desired, planners must carefully devise the number and mix of airlift forces which provide the optimum level of mobility capability for military forces. Airlift apportioners and operators must use these resulting airlift forces as efficiently as possible in the execution of mission taskings.

4.3. Airlift Organization. Air Force airlift forces are organized along functional lines. Strategic and theater airlift assets operate with distinct and separate command relationships. Forces intended for strategic use come under the COCOM of USCINCTRANS. On the other hand, forces earmarked to function in the theater airlift role are organized separately under the COCOM (CINCs only) or OPCON of a JFC. As the situation dictates, airlift forces may be assigned or attached to a different JFC. Since airlift is nearly

always supporting either a JFC or a specific user, the supported/supporting commander relationship is important in defining authority and responsibilities during airlift operations. When it is necessary for theater airlift to augment strategic airlift assets (or vice versa), then supported/supporting commander relationships dictate the degree of authority. **Figure 4.1.** shows the airlift organizational structure in which strategic and theater airlift forces are under separate operational chains of command.

Figure 4.1. Airlift Organizational Structure.



4.4. Airlift Forces Capability. A cornerstone of airlift doctrine is that the capabilities designed into the airlift forces must consistently support friendly military forces across the range of military operations. Commanders making decisions affecting airlift capability should carefully consider the advantages of a well-tailored airlift force. Principal among airlift advantages are flexibility, versatility, speed, and responsiveness. The selection of airlift airframes, equipment, and modernization programs should focus on airlift that poses these advantages regardless of the environment in which forces must operate.

4.4.1. Operating Environment. Military airlift missions often require the movement of large dimension cargo and operations at austere forward locations. These austere locations will most likely have minimal support equipment and substandard runways. Military airlift airframes and equipment should be chosen on the basis of their capability to function in these minimal support environments with large cargo. Additionally, US military forces emphasize night operations. Airlift must be capable of operating during periods of darkness and reduced visibility to deliver their load during either an airland delivery or an aerial delivery. Depending upon the operation, this may require precision navigation equipment as well as night vision capability and associated training. Airlift assets, not designed for versatility and responsiveness under battle conditions, have a limited scope of applications when compared to fully capable military airlift aircraft. As a result, they may retain far less value as military assets especially when responding to tactical requirements of a theater campaign. During a fast moving conflict, possession of special airlift capabilities such as the ability to forward deliver forces very near the objective area, may mean the difference between success and failure of an

operation. The capability level of the airlift forces must be consistent with the overall national strategy, as well as with the operational doctrine of those forces that airlift supports. Therefore, the mix and composition of airlift airframes and equipment should be capable of operating under the widest possible set of circumstances, up to and including night combat delivery operations in forward areas. These capabilities are acquired through a balanced program of acquisition of new equipment and modernization of existing equipment.

4.4.2. **Airlift Defensive Capability.** Airlift aircraft should possess a defensive countermeasure capability commensurate with the threat level they expect to encounter. Outfitting airlift airframes with defensive countermeasures permits airlift to accomplish their tasks across a wider spectrum of operations. Given the probability of a vast range of regional contingencies and varied conflicts and the proliferation of anti-aircraft weapons, planners cannot guarantee where on the globe or under what level of threat airlifters will operate. US airlift forces are increasingly tasked to perform missions in hazardous situations, both in war and most recently during military operations other than war (MOOTW). Many of these missions require some level of defensive, self-protection equipment. Recent examples of operations exposing airlift forces to moderate threat levels include Panama (Just Cause), Iraq (Desert Storm), Bosnia (Provide Promise), and Somalia (Restore Hope).

4.4.2.1. Historically, airlifters have not been equipped with self-defense equipment. Instead, planners could only reduce the risk to the airlift effort through threat-avoidance tactics, threat suppression by ground forces, and escort protection by fighter and ground support aircraft. The experience of Operation Provide Promise in Bosnia showed this strategy is often insufficient to provide adequate coverage for an airlift operation. The planners of Provide Promise realized this early in the operation and required participating airlift aircraft to have defensive countermeasure systems on board. In other cases it may not be politically viable to have fighter aircraft accompany the airlift effort, especially during certain types of MOOTW. Clearly a wide range of situations exists, necessitating the inclusion of an airlift self-defensive capability.

4.4.2.2. The goal of this equipment is to preserve the capabilities and responsiveness of US airlift forces. These defensive capabilities increase the probability of an airlift aircraft surviving in a hostile environment but by no means provide perfect protection. Therefore threat avoidance will always be the first choice of tactics. However, a lack of defensive countermeasures may restrict airlift aircraft to strictly permissive environments. This restriction effectively prevents our airlift forces from fulfilling their objective as force enablers and enhancers, and reduces their flexibility to support national policy across the range of military operations. At present, only a small portion of the airlift fleet has a defensive countermeasures equipment capability. Operational plans which entail exposing the airlift force to certain medium level threats will have to consider the availability of airlift aircraft possessing a defensive capability. An operation requiring a significant number of these aircraft would require a substantial amount of prior coordination in order to gather the necessary airframes.

4.5. Airspace Control and Management. The use of airlift in any theater or region must be integrated into the military airspace control plan as well as any civilian or international airway control system. This is necessary to ensure safe air traffic conditions and minimizes the probability of fratricide by US or coalition forces. Airlift planners must coordinate with the airspace control authority (ACA) 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 within a theater, such as during Operation Desert Shield/Storm. The routing of these corridors will be coordinated between the ACA, the

Director of Mobility Forces (DIRMOBFOR), the Airlift Coordination Cell (ALCC), and the Air Mobility Element (AME). These individuals and organizations must take into account all other theater operations and any likely threats to the airlift forces. The enemy threat and the evolving nature of theater operations may cause frequent changes to these corridors. The organizational structure of theater airlift places the ALCC as a functional part of the theater air operations center (AOC) and allows the close integration of daily airlift operations in the area of responsibility (AOR). The AME provides the coordination for strategic airlift assets entering the AOR and works closely with the ALCC and the ACA, within the AOC. It is the responsibility of the JFACC and the ACA, with inputs from the ALCC and the AME, to ensure procedures for the airspace management of airlift operations are sufficient to provide for the efficient and safe operation of all airlift aircraft in theater.

Chapter 5

STRATEGIC AIRLIFT

5.1. Operational Concepts. Strategic airlift is the air movement of units, personnel, and materiel between the CONUS and overseas theaters or between theaters as well as within the CONUS. It supports all Department of Defense agencies, as well as some non-DoD agencies such as the Departments of Energy, State, Justice, and Transportation. In order to be effective, strategic airlift should be capable of supporting a continuous link of sustained air movement between points of origin and the objective area. It is a vital part of the balanced mobility force structure, and is essential to the attainment of objectives set by the NCA.

5.1.1. Strategic airlift forces are organized, trained, and equipped to perform the following tasks:

- Deploy forces from CONUS bases to a theater or between theaters.
- Deliver forces directly into battle.
- Redeploy forces between theaters or back to CONUS.
- Sustain deployed forces.
- Conduct aeromedical airlift operations.
- Augment theater airlift capability.
- Perform assigned tasks involving non-lethal application of air power.

5.1.2. Aeromedical Airlift. Aeromedical airlift is the air movement of patients under medical supervision. It is a specialized subset of common-user airlift that the Air Force provides to JFCs. AMC assigns specific aircraft and support organizations to perform this task. These assets primarily support the strategic movement of patients out of an area of operations to a location with more suitable medical facilities. Additionally, nearly all airlift aircraft can be configured to support the aeromedical airlift mission, provided trained medical personnel are available. The aeromedical airlift system consists of specially trained medical crews and airlift aircraft including specifically designated CRAF airframes. A dedicated aeromedical system will normally be planned to operate in support of any JFC that may be engaged in hostile action. This system generally operates in the reverse of the deployment and sustainment airlift flow. In addition to the strategic aeromedical airlift system, JFCs will normally also have a theater aeromedical system available to them. The theater aeromedical airlift system will incorporate both dedicated aircraft, such as the C-9, as well as the theater's other airlift aircraft on a mission-by-mission basis as the situation requires. For more information on aeromedical evacuation airlift see JP 4-02.2, *JTTP for Patient Evacuation in Joint Operations*.

5.2. Organization. United States Transportation Command (USTRANSCOM) has been designated as the DoD single manager for transportation (other than theater-assigned and Service-unique assets). The primary Air Force component of USTRANSCOM is AMC, which is tasked with providing common-user strategic airlift for the DoD and other government agencies. In addition, ACC is also identified as a component of USTRANSCOM for providing C-130s for strategic airlift missions.

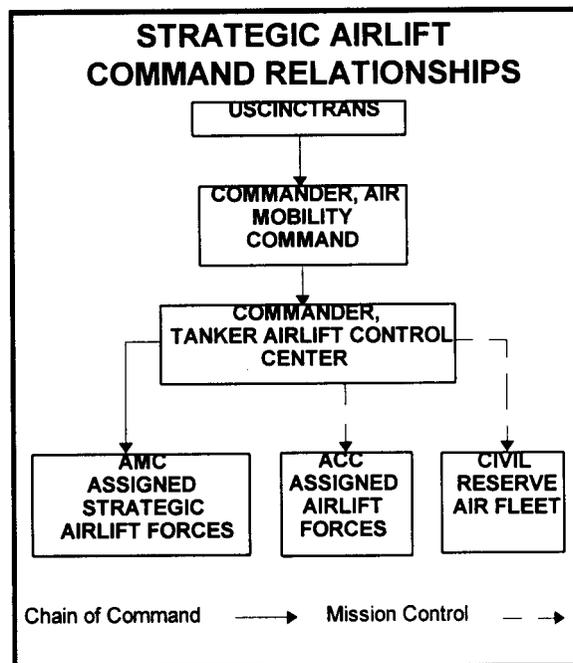
5.2.1. United States Transportation Command. The mission of USCINCTRANS is to provide air, land, and sea transportation for the DoD across the full range of military operations. USTRANSCOM is organized into three Transportation Component Commands: Military Sealift Command (MSC), Military Traffic Management Command (MTMC), and AMC. USCINCTRANS exercises COCOM

of AMC's strategic airlift assets, as well as a limited number of ACC C-130s for use in strategic airlift missions.

5.2.2. Air Mobility Command. AMC is the operating agency for common-use strategic air mobility assets. AMC executes airlift, aeromedical, and aerial refueling missions employing air assets assigned to USTRANSCOM supporting DoD-wide users. AMC organizes, trains, equips, and provides operationally ready airlift forces, both active and reserve, for these worldwide strategic missions. In addition, AMC plans, coordinates, and manages the Civil Reserve Air Fleet program. When the CRAF is activated, AMC assumes mission control of these assets through the Tanker Airlift Control Center (TACC).

5.3. Command and Control. COCOM of all common user, CONUS-based strategic airlift, and aeromedical forces is exercised by USCINTRANS. OPCON is exercised by the Commanders of AMC and ACC for their assigned forces. The Commander of AMC delegates OPCON and the Commander of ACC assigns TACON to the TACC for mission management of these forces. The TACC manages, controls, and executes strategic airlift missions through a global command and control system that includes fixed en route locations, as well as various deployable mission support forces (MSFs). Mobile command, control, and support elements are available to extend the airlift system to forward locations or increase the capacity of established facilities in times of a crisis. The objective of these C² elements is to assure a high level of responsiveness to national level taskings and provide effective use of the airlift forces. The TACC is the tasking, coordination, and execution agency for all USTRANSCOM airlift activities. It provides the critical link between the common-user strategic airlift customer and the unit assigned to provide that airlift. When a theater stands up an AOC, AMC will normally deploy an Air Mobility Element to operate as an extension of the TACC anytime strategic airlift issues are significant. The function of the AME is described in detail in [Chapter 6](#). [Figure 5.1](#) shows the organizational structure of strategic airlift assets.

Figure 5.1. Organizational Structure of Strategic Airlift.



5.4. Planning Considerations. The decision to use airlift to fill a transportation requirement should be based upon how urgently the payload is needed at its destination, the lift requirement in both dimensions of equipment and total tonnage, distance to objective area, and support facilities available both en route and at the objective area. Depending on the situation, airlift may accomplish part or all of an operation's requirements. Strategic airlift may function as either discrete movements filling individual requirements or as part of an air line of communication (ALOC) satisfying massive or long-term requirements for a theater of operations. Large, concentrated airlift movements carried out at the airlift system's highest possible utilization rate are known as surge operations. An ALOC may be operated on a surge basis for a limited time to fill short-term requirements. The objective of the contingency or crisis reaction as determined by the NCA, and the guidelines set by the JFC, will be the governing factors for determining the structure of the airlift flow.

5.4.1. Individual, discrete airlift movements are normally associated with routine scheduled airlift requirements. These air movements are usually planned well ahead of time and should be coordinated by the TACC, consolidating as many airlift requirements as possible. The routine nature of these missions usually allows administrative loading of the aircraft (versus combat loading) to be used. Administrative loading is the method of loading an aircraft in order to maximize the available capacity of that airframe without regard to tactical constraints. Other requirements may dictate the mission be combat loaded -- the loading method done with due regard to the tactical situation -- so that the forces can be fully operational immediately on arrival at the objective area. The combat-loading method takes into account the type and mix of the delivered forces, the order of arrival, and the time necessary to off-load the forces. Combat loading is required in all combat delivery operations and, to a lesser extent, during forward, direct-delivery operations to potentially hostile areas.

5.4.2. Large or long-term airlift requirements are usually associated with a theater contingency operation. An ALOC is established to fulfill these large requirements. The availability of transit airfields

with suitable facilities is critical to developing a continuous airlift operation. These transit bases allow airlift planners a great deal of flexibility in staging aircraft, providing crew rest facilities, supporting en route maintenance, and establishing tanker refueling options. A key factor and possible limitation that needs to be addressed during any large sustained operation is aircrew availability. Massive numbers of airlift missions, such as during the Gulf War, can quickly overburden the crews available to fulfill the requirements. The airlift operation into the Southwest Asia AOR during Desert Shield subjected strategic airlift aircrews to continuous flight operations with minimum crew rest for extended periods of time. Efficient aircrew management was imperative in keeping the ALOC operating at such a high capacity. The overall airlift plan should recognize and minimize the effect of aircrew availability on the operation's efficiency and level of safety. Another major planning consideration of the airlift operation is its own level of support requirements or the footprint it imposes on the theater. The goal of an airlift operation is to provide a continuous logistics pipeline into the theater; however, the airlift system itself requires a certain level of resupply, maintenance, and command and control support from the theater to continue operations. Every attempt should be made to minimize the need for the theater to provide this support to the airlift operation. Transit bases, before or immediately after the objective airfields, should be used whenever possible to stage and refuel aircraft, billet aircrews, and provide maintenance support of aircraft moving in and out of the theater. Moving as many of these support functions as possible out of the theater of operations greatly simplifies the objective area base operations and reduces the total requirement to the theater. Normally, this support to the airlift operation should only be provided in theater by exception.

5.4.3. A final planning factor affecting the basic character of a strategic airlift operation is the availability and use of air refueling support. Nearly all military turbojet airlift airframes are capable of being air refueled. In cases where the distances to the theater or objective area are great and transit airfields are not available, air refueling may be the only option available to move substantial loads into the theater. In situations where transit bases are available, airlift planners have the option of employing air refueling operations out of the transit base to increase the payload of the airlifters or to eliminate the airlifter's stop at the en route airfield. However, planning to use air refueling ties the airlift operation to the availability of tankers. If a tanker contact is missed due to weather, equipment problems, or the tanker aborting its mission, the airlift mission flow could be interrupted. Another possible limitation to an airlift aerial refueling plan may be a lack of refueling platforms. If tankers are tasked to deploy tactical aircraft to a theater, such as in the case of a fighter "drag", and provide continuing in-theater support in an employment role, the demand on such a limited number of air refueling assets may very well overtask the available tanker support capacity. This could restrict their availability for use in the airlift operation.

Chapter 6

THEATER AIRLIFT

6.1. Operational Concepts. Theater airlift is the common-user air transportation and delivery of personnel and materiel within a CINC's AOR. The theater airlift system consists of airlift aircraft, ground assets, and personnel assigned to the CINC's AOR. It also includes AMC and ACC shared assets deployed to provide airlift support in the theater. On occasion, strategic airlift assets may also be tasked to temporarily augment the theater airlift system. Theater airlift provides a CINC the capability to place combat forces virtually anywhere within the AOR. Fully integrating the use of theater airlift into the CINC's overall theater campaign plan maximizes the benefits of an effective theater airlift system. During the Gulf War, the aggressive use of theater-assigned C-130s was instrumental in deploying and sustaining the XVIII Airborne Corps in their wide flanking maneuver into Iraq. This fast-moving sweep would not have been possible without theater airlift assets. They operated from austere and unimproved landing zones (such as sections of highway), and kept the rapid advance supplied and moving. The Gulf War campaign planners recognized the added capability that quick-reaction, in-theater airlift afforded, and they used it effectively to add another dimension to the plan of attack.

6.1.1. Theater airlift forces are organized, trained, and equipped to perform the following tasks:

- Deploy and redeploy forces within the AOR.
- Sustain deployed forces (both routine and combat sustainment).
- Deliver combat forces directly into battle.
- Force extraction from a combat environment.
- Conduct aeromedical evacuation operations.
- Augment strategic airlift forces when required.
- Perform non-lethal air power tasks such as foreign humanitarian assistance, leaflet drops, aerial spray, and fire fighting.

6.2. Organization. Any organization of theater airlift assets must be responsive to the needs of the theater CINC or the JFC to which they are assigned. The Air Force is tasked by the DoD to provide all common-user theater airlift assets for the various theater CINCs or JFCs. The airlift assets and personnel earmarked for supporting a theater are attached to the appropriate MAJCOM and under the OPCON of the Air Force Component Commander. At this level, prior to a contingency or crisis response, they are maintained and trained on a continuing basis to provide mission-ready airlift forces to the theater commander. As the situation requires, theater airlift assets are assigned or attached to a CINC by the Secretary of Defense through the CJCS. These theater airlift forces will fall under the COCOM (for permanently assigned forces) or OPCON (for temporarily attached forces) of the theater CINC. The majority of aircraft intended for use as theater airlift support are in Air Combat Command; however, three theaters (Pacific Command, European Command, and Southern Command) have permanently assigned theater airlift forces. In the event of a major regional conflict, ACC airlift aircraft would either form or augment the theater airlift forces in the AOR. Additionally, AMC provides substantial support assets to the theater airlift system, including the majority of the elements that process cargo and passengers for air movement.

6.3. Command and Control. The lowest practical level for organizing and operating common-user airlift is normally at the theater level. It is possible during contingencies to attach theater airlift forces within

a sub-unified command level or a joint task force (JTF), depending upon the situation; however, in most cases this dilutes the efficiency of the theater airlift system, since it decentralizes the control of these common-user assets. OPCON of theater airlift forces should be delegated to the Air Force Component Commander since this ensures the availability of theater airlift expertise to manage and coordinate this limited asset with other theater air operations. Normally a Joint Force Air Component Commander (JFACC) will be designated by the JFC. The JFACC's responsibilities will include, but not be limited to, planning, coordination, allocation, and tasking based on the JFC's apportionment decision. The relationship of airlift assets to the JFACC is the same as with any of the AFCC's other air operating forces. If the AFCC is designated the JFACC of a theater, OPCON of the air operating forces, including theater airlift, is exercised by the JFACC. When a JFACC other than the AFCC is designated, the JFC will designate the level of authority to be exercised by the JFACC, usually tactical control (TACON) as a minimum. In all cases, the JFACC should exercise control of the theater airlift assets through the AFCC. In addition the AFCC will be responsible for appointing personnel with airlift expertise to operate the Airlift Coordination Cell (ALCC) within a JFACC's Joint Air Operations Center (JAOC).

6.3.1. The Air Operations Center. The AOC is the organization that is responsible for controlling theater air operations, including all theater airlift operations. The AFCC normally exercises OPCON of assigned assets through the AOC director. Within the AOC, (or the JAOC if a JFACC is established) the airlift coordination cell manages and executes theater airlift operations.

6.3.2. The Airlift Coordination Cell. The ALCC is the organization which functions within the AOC to plan, coordinate, manage, and execute theater airlift operations in the AOR. The ALCC chief heads this organization and reports directly to the AOC director. The ALCC integrates all theater airlift activity with other theater air operations as well as the strategic air mobility effort supporting the theater. The exact organization of the ALCC will depend on the requirements of the theater and the AFCC's concept of organizing and operating the AOC. Normally, the ALCC will consist of an airlift plans branch, an airlift operations branch, and an airlift logistics branch. These elements, though consolidated in the ALCC, coordinate with various AOC planning and operational elements. Due to the nature of theater airlift operations, it is critical that the ALCC coordinate directly with organizations involved with logistics and mobility support to the theater. Therefore, the ALCC will coordinate with the AME (or with the TACC if no AME is established in theater), the Joint Movement Center (JMC), and the Director of Mobility Forces if designated.

6.3.3. The Aeromedical Evacuation Coordination Center (AECC). The function of this C² element is to coordinate aeromedical evacuation of casualties within the theater. The AECC aligns under the AOC under the ALCC. It coordinates medical requirements with airlift capability, assigns medical missions to appropriate aeromedical units in the theater, and monitors patient movements. The AECC coordinates strategic aeromedical support with the AME or the TACC as appropriate.

6.3.4. The Air Mobility Element. The AME deploys to the theater as an extension of the AMC TACC, when requested. It coordinates with the theater airlift management system and collocates with the AOC (or Joint AOC) whenever possible. The AME provides coordination and interface of the strategic air mobility system (airlift and air refueling) with the theater air logistics system. The AME assists and advises the DIRMOBFOR, when established, on matters concerning strategic air mobility assets. AMC retains OPCON of the AME and will organize and manage the AME to support USTRANSCOM global requirements. The corporate efforts of the AME, ALCC, and the tanker cell ensure the seamless execution of all air mobility operations in support of the theater.

theater airlift must be carefully planned and executed in accordance with the directives and policies of the AFCC and the theater CINC. As a general guideline, theater airlift assets should not be allocated to a requirement that can be adequately fulfilled by land transportation assets. When time is short or no surface route exists, theater airlift may be the only transportation available, and its value to high-priority missions will be priceless. At the same time, campaign operations should be planned to minimize the necessity for theater airlift support unless that airlift capability is providing a specific objective or end result to the operation not attainable by other transport means.

6.4.1. The overall goal of theater airlift planning is to support immediate and surge requirement operations while at the same time maximizing the contribution to the long-term accomplishment of the theater campaign. Airlift requirements originate on either a predictable, recurrent basis or a surge operation basis. Recurrent or air flow operations establish evenly spaced requirements for airlift missions. These operations allow planners to extract the maximum utility from available airlift assets. Recurrent missions usually involve aircraft flying predictable schedules and route structures which could make them vulnerable to enemy detection and attack. This requires a low-threat environment or self-protection capability if the airlift aircraft are to operate without tactical support.

6.4.2. Surge operations involve the mass or sustained movement of personnel or materiel into a specific objective area within a limited timeframe. This type of operation is often associated with the CINC's scheme of maneuver for the campaign plan. The ability of theater airlift forces to perform surge operations is of immense value to the campaign plan; it allows a CINC the flexibility to respond quickly and aggressively to opportunities in a rapidly developing battle scenario. The type of objective normally associated with surge operations usually exposes airlift forces to a higher level of threat. As a result, surge operations will often require some level of tactical support, escort, or airlift defensive capability. Planners must consider providing additional security forces, especially for airlift operations at forward locations. Fortunately, surge operations are normally concentrated in time and objective area; making it easier for friendly forces to provide protection for the airlift effort. The disadvantages of surge operations are that they disrupt the efficiency of the overall theater airlift system and the concentration of airlift activity may solicit an attack from the opposition.

6.4.3. Immediate requests are short-notice priority taskings to provide airlift. Maintaining some airlift capacity in reserve to respond to priority immediate taskings guarantees availability of airlift for these critical missions. However, this practice could reduce the efficiency of the airlift system by denying the use of airframes to the daily transportation requirements of the theater. Properly organized, trained, and equipped airlift forces can usually shift rapidly between missions and locations in order to respond to immediate taskings. Therefore, operating the entire theater airlift fleet at its maximum sustainable capacity each day should not undermine the timely reaction to shifting priorities of a theater campaign or short-notice emergencies. The decisions to maintain a reserve (or alert) capacity should only be made after weighing the situational benefits that could be gained against the guaranteed loss of daily airlift capacity to the theater.

RONALD R. FOGELMAN, General, USAF
Chief of Staff

Attachment 1

GLOSSARY OF REFERENCES, ABBREVIATIONS, ACRONYMS, AND TERMS

References

AFM 1-1, *Basic Aerospace Doctrine of The United States Air Force*

AFDD-2, *Theater Air Warfare*

AFDD-3, *Military Operations Other Than War*

AFDD-35, *Special Operations*

AFDD-40, *Logistics*

Joint Pub 1-02, *Department of Defense Dictionary of Military and Associated Terms*

Joint Pub 3-0, *Doctrine For Joint Operations*

Joint Pub 3-07, *Military Operations Other than War*

Joint Pub 3-17, *JTTP for Theater Airlift Operations*

Joint Pub 4-01, *Defense Transportation System*

Joint Pub 4-01.1, *JTTP for Airlift Support to Joint Operations*

Joint Pub 4-02.2, *JTTP for Patient Evacuation in Joint Operations*

Abbreviations and Acronyms

ACA—Airspace Control Authority

ACC—Air Combat Command

ACL—Allowable Cabin Load

AFCC—Air Force Component Commander

ALCC—Airlift Coordination Cell

ALOC—Air Lines of Communications

AMC—Air Mobility Command

AME—Air Mobility Element

AOC—Air Operations Center

AOR—Area of Responsibility

ARC—Air Reserve Component

CINC—Commander of a Combatant Command; Commander in Chief

C²—Command and Control

CJCS—Chairman of the Joint Chiefs of Staff

COCOM—Combatant Command (command authority)

CONUS—Continental United States
CRAF—Civil Reserve Air Fleet
CSA—CINC Support Airlift
DIRLAUTH—Direct Liaison Authorized
DIRMOBFOR—Director of Mobility Forces
DoD—Department of Defense
DZ—Drop Zone
JAOC—Joint Air Operations Center
JFACC—Joint Force Air Component Commander
JFC—Joint Force Commander
JMC—Joint Movement Center
JTB—Joint Transportation Board
JTF—Joint Task Force
LZ—Landing Zone
MAJCOM—Major Command (USAF)
MHE—Materiel Handling Equipment
MOOTW—Military Operations Other Than War
MRC—Major Regional Contingency
MRE—Meal, Ready to Eat
MSC—Military Sealift Command
MSF—Mission Support Forces
MTMC—Military Traffic Management Command
NCA—National Command Authorities
OPCON—Operational Control
OSA—Operational Support Airlift
PACAF—Pacific Air Forces
SECDEF—Secretary of Defense
SOF—Special Operations Forces
SSA—Service Support Airlift
TACC—Tanker/Airlift Control Center
TACON—Tactical Control
TALCE—Tanker/Airlift Control Element

USAFE—United States Air Forces in Europe

USCINCTRANS—Commander-in-Chief, United States Transportation Command

USTRANSCOM—United States Transportation Command

Terms

Administrative Aircraft Loading**—The method of loading an aircraft so that the allowable cabin load (ACL) is maximized without regard to the ability to use the delivered personnel or materiel immediately upon arrival in the objective area.

Aeromedical Airlift—The specialized airlift assets that provide the common user air movement of stabilized patients under medical supervision to and between medical treatment facilities. Aeromedical airlift assets are normally assigned to USTRANSCOM, but may be assigned or attached to a theater CINC as conditions require. Note that most strategic, theater, and organic airlift airframes may perform the aeromedical airlift mission if an aeromedical team is available.

Bulk Cargo***—A category of cargo defined by dimension. Bulk cargo is cargo that is within the usable dimensions of a 463L pallet and within the height and width requirements established by the cargo envelope of the particular model aircraft. This is anything fitting within the lateral limits of a usable 463L pallet of 88 inches by 104 inches. This category is also referred to as palletized cargo and will typically be configured to fit on any airlift aircraft that can accommodate a 463L pallet.

Combat Aircraft Loading**—The method of loading an aircraft so that the personnel and or the materiel delivered are ready for rapid download and immediate use. Combat loading usually entails cross loading in which a specific type of resource of a combat unit is distributed among several aircraft loads so that the loss of a single aircraft, for example, would not result in the loss of the unit's entire stock of that resource (such as communication gear or anti-tank weapons). Normally combat loading will not allow the maximum ACL of the aircraft since rapid download and use takes precedence over most efficient use of ACL.

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). (JP 1-02)

Non-air Transportable**—That which is not transportable by air by virtue of dimension, weight, or special characteristics or restrictions. Restrictions by dimension include any single piece of cargo exceeding 1453 inches in length, 144 inches in width, and 156 inches in height, or exceeding 1453 inches in length, 216 inches in width, and 114 inches in height.

Operational Control (OPCON)—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. (JP 1-02)

Operational Support Airlift**—The organic airlift assets assigned either to an individual combatant commander, and referred to as "CINC support airlift" (CSA), or to the secretaries of the Military Departments, and called "Service Support Airlift" (SSA). Those aircraft assigned to the combatant commanders perform airlift missions in direct support of combat units assigned to the CINCs. SSA aircraft satisfy service secretarial requirements supporting the function of preparing forces for war.

Outsize Cargo*—A category of cargo defined by dimension. Outsize cargo, such as M-1 main battle tanks and M-2 infantry fighting vehicles, constitute the largest category of cargo and requires special doors and aircraft built to accommodate their dimensions. Cargo exceeding 1090 inches in length, 117 inches in width, or 105 inches in height qualify as outsize cargo. Typically, this cargo is limited to the C-5 and C-17, which are designed to accommodate these dimensions.

Oversize Cargo*—A category of cargo defined by dimension. Oversize cargo is larger sized cargo which requires special cargo doors to pass the item. Cargo exceeding the usable dimensions of a 463L pallet loaded to a design height of 96 inches by equal to or less than 1090 inches in length, 117 inches in width, and 105 inches in height. Additionally, most vehicles (except the largest vehicles) such as HMMWVs, trucks, and trailers fit into the oversize cargo category. This category meets the dimensional requirements for the aft cargo door of the C-130 and C-141 aircraft, as well as the side cargo doors of KC-10 aircraft.

Strategic Airlift**—The common-user airlift that provides the airbridge linking theaters to the continental United States and to other theaters as well as the airlift within the CONUS. These assets are assigned to the Commander-in-Chief, U.S. 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.

Supported/Supporting Command—Support is a command authority. A support relationship is established by a superior commander between subordinate commanders when one organization should aid, protect, complement, or sustain another force. Support may be exercised by commanders at any echelon at or below the level of combatant command. This includes the NCA designating a support relationship between combatant commanders as well as within a combatant command. The designation of supporting relationships is important as it conveys priorities to commanders and staffs who are planning or executing joint operations. The establishing authority is responsible for ensuring that both the supported and supporting commander understand the degree of authority the supported commander is

granted.

Tactical Control (TACON)—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. (JP 1-02)

Theater Airlift**—The common-user airlift that primarily provides the air movement of personnel and materiel within a CINC's area of responsibility. These assets are normally either assigned or attached to the specific theater CINC. This mission is generally fulfilled by comparatively shorter range aircraft capable of operation under a wide range of tactical conditions including austere, unimproved airfield operations.

* Definition applicable only in context of this pub.

** Definition proposed for inclusion in AFDD 100.

*** Definition will modify an existing definition.