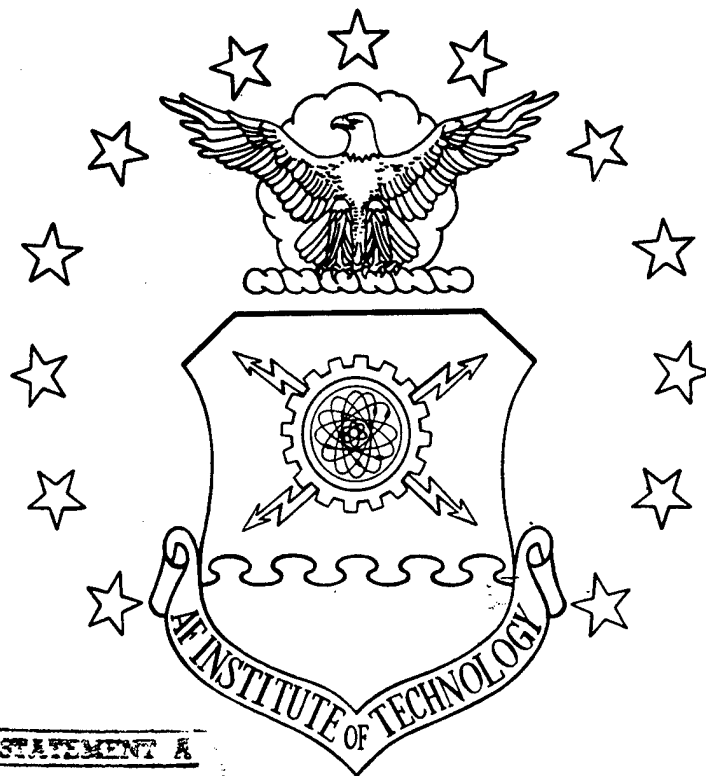




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BRIDGING THE GULF BETWEEN
THEATER AND STRATEGIC
AIR MOBILITY

GRADUATE RESEARCH PAPER

Randy A. Kee, Major (S), USAF

AFIT/GMO/LAL/96N-4

DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY

AIR FORCE INSTITUTE OF TECHNOLOGY

Wright-Patterson Air Force Base, Ohio

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The views expressed in this graduate research paper are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.

BRIDGING THE GULF BETWEEN
STRATEGIC AND THEATER MOBILITY SYSTEMS

GRADUATE RESEARCH PAPER

Presented to the Faculty of the Graduate School of
Logistics and Acquisition Management of the

Air Force Institute of Technology

Air University

Air Education and Training Command

In Partial Fulfillment of the
Requirements for the Degree of
Master of Air Mobility

Randy A. Kee, B.S., M.A.

Major (S), USAF

November 1996

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Randy A. Kee

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Abstract

The air mobility system that exists within the Department of Defense (DoD) community today appears to have several key problems. Air mobility forces participating in contingency operations have experienced difficulties in operating airlift in a combined effort since the 1992 realignment of the forces comprising the airlift system. Problems have occurred that suggest that the divisions in the command, control, communication, cooperation, manning, and equipment between the strategic and theater air mobility systems are not interfacing effectively, reducing the efficiency of air mobility efforts. The contingency airlift command structure is cumbersome, while theater airlift planning and control efforts in peacetime is fractured.

This paper examines the current and previous air mobility processes, and the organizations that provide planning and command of air mobility operations. Historical operations and command alignments are reviewed to provide lessons learned that can aid in proposing alternatives that address 1.) the most logical organization and resident command of airlift forces, 2.) the contingency organizational structure for command and control airlift forces. and 3.) factors that can improve the current air mobility operation as a whole.

The summary need of today's system is to align Continental United States (CONUS) forces under one combatant commander, consolidating contingency staff and planning processes, establishing an appropriate subordinate air mobility commander to

the contingency air forces commander, and organize peacetime structures and processes to mirror contingency structures and processes.

Thus, the goal of this paper is to propose ways to fix problems with the current air mobility structure that can provide as “seamless” an air mobility system as possible for the Department of Defense Transportation Network.

BRIDGING THE GULF BETWEEN THEATER AND STRATEGIC AIR MOBILITY

I. The Quest to Improve Today's Air Mobility System

Problem Statement

The air mobility system that exists within the DoD community today appears to have several key problems. Air mobility forces participating in contingency operations have experienced difficulties in coordinating, controlling, communicating and operating airlift in a combined effort since the 1992 realignment of the forces comprising the airlift system. This reorganization helped to create problems in the air mobility process. These difficulties developed primarily because of the division of control authority between the forces operating under the Commander in Chief (CINCs) of the functionally aligned United States Transportation Command (USTRANSCOM) and the CINCs of the geographic (theater) commands. A sufficient interface or coordination relationship was not developed when the change of command of air mobility forces occurred. The difficult relationship between the strategic and theater air mobility system challenges efforts to effectively integrate, in both peace and contingency, because those systems are developing their own distinct mobility management systems and laydown support structure. The current contingency command and control structure is cumbersome. Finally, the geographic CINC's subordinate USAF theater air component commands have not adequately established an airlift command and control structure to provide a single tasking authority over both assigned and attached forces. This adds to the difficulties to integrating strategic and theater air mobility processes.

Introduction

The past several years the DoD and the USAF have undergone significant reductions and realignments as a result of the conclusion of the cold war. The DoD community subsequently has reexamined its services' roles and missions, attempting to streamline its overall operations and re-focus its visions within the "new world order."

In 1986, the Goldwater-Nichols Act redefined our current Department of Defense structure. One result was the emphasis of joint alignment for operations, while the separate services organize, train, and equip their forces. The result is a single chain of command with two branches: The National Command Authority (NCA--essentially the US President through the Secretary of Defense) to the CINCs of the unified commands for missions and forces assigned to their commands, and the NCA to service secretaries for purposes other than operational direction. The CINCs of the unified commands exercise combatant command over their assigned forces. The NCA establishes combatant commands, prescribes force structure, and assigns missions. This action is accomplished by the Unified Command Plan and the "Forces For Combat Commanders" Memorandum (Joint Pub 0-2, 1995).

The CINCs and their unified commands are then aligned by either functional or geographic focus. The geographic CINCs and their unified commands are referred to as the "warfighters" because their primary purpose is to be the US commander that is responsible to organize and engage most US military responses within a specified

geographic region. For example, the US CINC in charge of prosecuting the Persian Gulf Conflict was the CINC for US Central Command, General H. Norman Schwarzkopf (Matthews & Holt, 1995:11). The functional CINCs have a combatant role as well, but that role is not limited to a specific geographic region. For example, the Goldwater-Nichols Act ordered the Secretary of Defense to consider creation of a unified transportation command to meet national security needs. The result was the creation of USTRANSCOM, the functional unified command charged with managing the nation's defense transportation network (Matthews & Holt, 1995:2-3).

Supporting the current national military strategy of two "near simultaneous" Major Regional Contingencies (MRCs) as approximately the current "worst case" scenario using airlift assets, the national defense transportation system is strapped to provide adequate support to the "warfighting" CINCs of the regional Areas of Responsibility (AOR). The fact remains that demand for airlift support will always exceed the capacity of the airlift forces. As a result, apportionment and effective use based on priority of need is a basic function of the air mobility system (Joint Pub 3-17, 1995:viii).

Optimization of the entire defense transportation system is required to best support the warfighting CINCs. To illustrate, a crisis erupting in the Middle East followed closely by a crisis on the Korean peninsula, would most probably require the maximum use of all strategic and theater military lift (both active and Air Reserve Component (ARC)) as well as activation of the Civil Reserve Air Fleet (commercial air

carriers activated to augment airlift in times of national emergency). The NCA sets priorities of lift movement that are designed to apportion air mobility assets to optimize the movement of personnel and equipment to both theaters of conflict. The goal of the entire air mobility team would be to support the geographic CINCs as they prosecute the crisis response (Air Force Doctrine Document 30, 1995:8).

As the primary pillar in the “moving of the troops and their equipment,” USTRANSCOM has an increasingly central role in supporting America’s participation within the “new world order.” As one of the primary supporting commands of the geographic “warfighting” commands, USTRANSCOM primarily provides the scheduling of transportation needs from the Ports of Embarkation (POE) to the Ports of Debarkation (POD) located in the geographic theater. USTRANSCOM is also the DoD agency charged with advocacy and stewardship of the nation’s defense transportation network.

USTRANSCOM’s mission to “provide air, land and sea transportation for the DoD, both in time of peace and time of war,” allows USCINCTrans to orchestrate transportation services for all CINCs on a global basis. As the current “air component” of USTRANSCOM, the US Air Force’s Air Mobility Command (AMC) centrally manages strategic airlift assets within and between theaters to provide common-user air transportation in accordance with JCS-established priorities (White Paper, 1996:2).

Joint doctrine charges USTRANSCOM with a critical aspect of the mobility system, the command and control interface between strategic and theater mobility:

“USTRANSCOM command and control affects the interface of theater and strategic airlift operations” (Joint Pub 3-17, 1995:II-4). This point is a central issue to this paper, because it highlights the need for USTRANSCOM to accept ownership for advocating methods that will allow air mobility efforts to effectively integrate across commands.

USTRANSCOM is the central manager of the defense transportation network. The defense transportation network must allow DoD force projection worldwide and be capable of sustaining those forces (NTSPS, 1990:16.1). Air mobility forms one critical “leg” of the defense transportation “mobility triad,” which also includes sealift and surface transportation management.

The geographic unified commands own and operate theater airlift forces that support operations within the theaters where they are assigned. The geographic CINC’s theater airlift forces are intended to operate as a stand alone support system for the theater, and also work in conjunction with the forces of USTRANSCOM as a part of the defense transportation network.

Thus, today’s air mobility portion of the defense transportation network consists of multiple parts. The forces of USTRANSCOM provide the primary effort of global reach from the CONUS to the theaters, while the theater airlift forces operate to primarily support theater air logistics needs. Most people and cargo moving between the theaters do not stop at the theater’s PODs. The PODs serve primarily as a transshipment point between strategic and theater mobility systems. The transshipment at the PODs, along

with the other components of the interface are critical to the overall effect of the air logistics effort. These include issues such as the separate strategic and theater air mobility efforts for command, control, scheduling, visibility of aircraft and cargo movements, and cargo handling functions.

Today's mobility system appears to be hindered by interface difficulties that exist between the separate strategic and theater mobility systems. There are core and contributing issues that affect the performance of the entire air mobility effort because of these apparent problems.

Illustration of the Problems Now Faced by the Air Mobility System

In December 1995, a test of the doctrinal arrangement of the post-1992 multiple command airlift system occurred. The test was in fact the operational deployment of troops and equipment from Germany into the American controlled sector in Bosnia for Operation JOINT ENDEAVOR. The US European Command's (USEUCOM) original deployment plan called for minimal airlift to support the deployment; the airlift needs could be supplied exclusively by theater airlift.

External factors forced the plan to change. The airlift requirements mushroomed considerably, far outpacing what USEUCOM's theater forces could provide. Subsequently, airlift augmentation was provided to USEUCOM by mobility forces from USTRANSCOM and US Atlantic Command (USACOM). The post-1992 command and control arrangement for organizing contingency airlift was not responsible for the need to change the plan, but as will be addressed, did have an impact on effective planning.

Additionally, the post-1992 arrangement did have an effect on the difficulties encountered in smoothly executing the deployment resulting from factors such as confusion on command and control of airlift and support assets, mission tasking, cargo tracking, and coordination between the commands that were participating in the deployment. Other contributing factors included differences between the amount and quality of the support assets that sustained each command's mobility effort, a lack of synergy between the commands that operated the mobility forces, and competing and conflicting goals of the mission of mobility lift (DIRMOBFOR, 1996).

What this resulted in was a disorganized airlift effort. Initially there was no orderly flow in deploying personnel and equipment. Loading of aircraft was delayed and/or disrupted. This resulted in late takeoffs, disrupting the airlift flow. Schedulers, planners, and cargo operators did not have visibility of "what was going where." Tasking and execution of airlift was initially fractured, and only improved with dedicated work and extraordinary effort from deployed commanders on down to cargo handlers. Fractured tasking resulted in duplication of effort and confusion of who (which command's air components--USTRANSCOM or USEUCOM) was going to perform the mission. Thus, the end result was that the goal of the deployment--the closure of the force package, was achieved. However, achieving that goal was made extraordinarily difficult because of the hardships just described (DIRMOBFOR, 1996).

Air Mobility versus Airlift

Since 1992, air mobility has referred to the combined teaming of both USAF airlift and the bulk of air refueling aircraft to perform the DoD service of those two missions. An integrated airlift system refers to the ability of cargo and people to effectively and efficiently travel between origin to the hands of the user. The interface between strategic and theater control of the air refueling mission is not as significant an issue today, primarily due to the national strategies regarding employment of air refueling, versus the sizing of the refueling fleet (Moncrief, 1996). This will be discussed further, however, the scope of this project is focused on the airlift mission.

Background

It has been said that seamless airlift existed prior to the elimination of the single airlift manager that existed under the specified command structure of Military Airlift Command (MAC) during the years from 1974 to 1988 (Mathews & Smith, 1992). This unified structure continued essentially until 1992, because although USTRANSCOM was activated on 1 July 1987 and MAC lost its status as a specified command on 30 September 1988 (and became a component of USTRANSCOM), all common user assets remained under a single airlift manager. During this period, MAC also retained operational command over its assets, control of industrial funds, and responsibility for performing service-unique missions as well as procurement (Cole & others, 1993:103).

During this period, airlift customers and operators alike considered the airlift system seamless because all DoD common user airlift aircraft and support assets,

belonged a to single CINC (CINCMAC/CINCTRANS) who was readily identifiable by the NCA and airlift customers alike as a "single point of contact" for any airlift issue. The singleness of control in this case, allowed for an integrated airlift system (DIRMOBFOR, 1996). However, a complaint of the single airlift system was that responsiveness to the overseas commanders was lacking (Snyder, 1996).

In 1992, the USAF reorganized its mobility force structure which eventually led to the subsequent distinction and separation of command and control for strategic and theater air mobility assets. The reorganization resulted in AMC gaining strategic and CONUS based theater air mobility forces (AMC initially retained control of CONUS based C-130s that were subsequently divested in 1993) and the USAF "theater" component command structures receiving the theater airlift forces residing within their theaters (Matthews & Leland, 1995:22). The effect of this USAF reorganization was the CINC's of the unified commands of US European, Pacific, Atlantic and Southern Commands became combatant commanders of the theater airlift forces that resided within their theaters, and operational control of those forces were provided by the geographic CINC's Air Force Component Command (AFCC) (respectfully, US Air Forces Europe, Pacific Air Forces, and Air Combat Command).

Why The Air Mobility System Was Divided

There is a vital and compelling reason why the reorganization of theater air mobility resulted in realignment under the USAF theater commands. The USAF commander of theater assets is the single “air boss” of USAF assets that reside and operate within the theater. As such, the CINC of the geographic theater has one person to turn to for any issue involving anything to do with USAF assets: the USAF component commander (AFCC). The result intended is the CINC having full integration of theater airlift within the theater’s operation, and control of all the people and equipment the CINC needs in order to fight and win. In effect, theater airlift is just one part of the total theater warfighting team. Additionally, overseas theater command of assets residing within the theater was believed to enhance responsiveness to theater airlift needs as described.

Outline of the Research

This paper is taking the following approach: identify the problems, review the issues, and propose solutions. In detail, the paper compares current and previous air mobility processes and structures, reviews “lessons learned” from historical and recent contingency operations, and describes issues that currently cause problems to today’s air mobility system. Proposals are then illustrated that 1.) prescribe changes to the air mobility command alignment to air mobility forces, and 2.) prescribe ways to improve both contingency and peacetime air mobility efforts based on a semblance of the current strategic and theater airlift system remaining in place. Quite simply, the effort of this

paper is to search for and recommend rational ways of fixing the strategic to theater mobility problems that now exist.

Capturing successful elements of past structures and applying them to structure ways to meet the challenges of today and tomorrow, will be a focus of the paper's effort.

Most importantly, the air mobility system, like all DoD systems, should be focused in building the structure today that can both meet today's requirements and be postured to meet the challenges of tomorrow.

The following is a roadmap of the issues to be addressed regarding difficulties in the air mobility system. This project has divided the investigative questions into what are the core issues and contributing issues that cause problems in today's air mobility system. Also a relevant cursory comparison between airlift and air refueling will be described.

The Core Issues Affecting Air Mobility

Investigation will determine if the following issues are causing problems.

1.) The relationship regarding command, control, and communications between the strategic and theater mobility systems. An analysis of the structure between the command and coordination staffs could determine how effective the interface is between strategic and theater mobility systems.

2.) If overlap and duplication of effort are occurring, and their effects.

3.) How equitably air mobility assets are apportioned between theater and strategic forces.

4.) The ability of the current multi-commanded air mobility system to maintain asset and cargo visibility.

5.) The ability of the current mobility system to handle competing interests for air mobility support.

6.) How significant an issue operational and tactical control of assets is between the commands that operate mobility forces.

7.) How significant or necessary is synergy between the commands that operate mobility forces.

The Contributing Issues Affecting Air Mobility

1.) How equitably is air mobility “expertise” shared by the commands who operate mobility?

2.) The tug of war over theater airlift--determining the primacy of the dual roles of theater airlift.

3.) CONUS based theater airlift: Should combatant command belong to USTRANSCOM or US Atlantic Command (USACOM)?

4.) The impact of confused customers.

Importance of the Research

This research paper examines both historical documents of past air mobility structures, a review of how the system became fragmented, and a “multi-command” look at various proposals to repair the problems that exists between the strategic to theater mobility system. This review includes analyzing joint and USAF doctrine publications.

Finally, as the described core and contributing issues indicate, this paper is intended to be a multi-echelon review to address the effectiveness of the current air mobility system across the spectrum of issues, in order to define and provide reasonable proposals regarding the subject to concerned USAF leadership.

II. The Layout of the Current Air Mobility System and Key Concepts

The following information describes both terms and positions that are key to understanding the air mobility system. The chapter layout is as follows: 1.) descriptions of air mobility concepts, 2.) the permanent air mobility agencies and peacetime process, and 3.) the contingency air mobility agencies and process.

Description of Concepts

Who are the customers of air mobility and what is important to them? The primary customers are the “warfighting” CINCs, their Joint Force Commanders (JFCs) and the supporting staffs and forces.

CINCs and JFCs want a single point of contact for mobility support and or lift augmentation. As “customers” they do not specifically care how the structure is devised; they are more interested in ease of use and results (ACC/DOOM, 1996).

Commanders concentrate on their core competencies. The warfighting CINCs, are focused on employing today’s forces to achieve security objectives. As such, the geographic CINCs are employment experts, not necessarily deployment experts. When an air campaign plan calls for airlift, JFCs and Joint Air Force Component Commanders (JFACCs) desire to control needed air mobility assets in order to achieve the campaign’s objectives. Additionally, these commanders are essentially customers of the air logistics system. As such, they normally forward and coordinate air logistics requests to air mobility components through the warfighting CINC’s Joint Movement Center (JMC) (Joint Pub 3-17, 1995:III-1). Requirements using air mobility to employ combat force are

conducted by the CINC's logistics staff directorate, which oversees the planning of a war or contingency effort (Evans, 1996).

The warfighter's focus should rightfully be on winning the fight. The air logistics team's job is to ensure that requested personnel and material are there to achieve that objective.

Levels of command: COCOM, OPCON, and TACON. Combatant Command (COCOM): COCOM belongs to the Unified CINC. COCOM is the CINC's command of forces as detailed by the Joint Chiefs of Staff Unified Command Plan for combat operations. COCOM is not transferable to other CINCs. Combatant Command authority is vested in US code and/or the President (Joint Pub 3-0, 1995:II-6).

Combatant Commanders are directly responsible to the Secretary of Defense for accomplishing assigned missions. They may control or delegate the authority to conduct military operations to a subordinate commander (Joint Pub 3-0, 1995:II-11).

Operational Control (OPCON): OPCON is the authority to plan and task forces on a regular and permanent basis. It may be exercised at any echelon at or below combatant command and can be delegated or transferred. "It includes assigning tasks, designating objectives and giving authoritative direction necessary to accomplish the mission" (Joint Pub 3-0, 1995:II-7). "Exercise OPCON through" is using that control through a forward deployed commander or agency. As will be described, current doctrine has AMC's Tanker Airlift Control Center (TACC) using the deployed Air Mobility Element staff to "exercise OPCON through" to deployed AMC forces (DIRMOBFOR,

1996). It is important to note that OPCON provides a “single unbroken chain of command” (Murin, 1996).

Transfer of OPCON between commands is a formal process that requires Secretary of Defense authorization to achieve. The formality of the transfer of OPCON implies that such a transfer is usually not immediately achieved upon request, and implies that once transfer is complete, an equally formal process is required to return OPCON to the parent MAJCOM (DIRMOBFOR, 1996).

Tactical Control (TACON): TACON is the authority to task forces for a limited and specified basis. TACON is “usually limited to the detailed and usually local direction and control of movements or maneuvers necessary to accomplish assigned missions or tasks” (Joint Pub 3-0, 1995:II-8). Unlike OPCON, TACON does not give the commander the authority to reorganize forces. TACON is a lower echelon of command authority than OPCON. This is an important distinction, because in combat there needs to be a clear order of command authority. That authority at the field level is OPCON. TACON on the other hand, provides the operational commanders the use of augmenting forces to aid the commander in achieving objectives. But forces that are provided TACON to another command are essentially “borrowed” from the parent command, who retains the right to redirect them as necessary. Under most circumstances, TACON of strategic forces to a theater command can provide short term support to field commanders in achieving specific goals.

Classifications of airlift. Common user airlift is classified as either strategic or theater airlift. Strategic airlift is intertheater airlift that provides movement between geographic theaters such as the United States and Europe. Strategic airlift is normally provided by longer range and larger capacity aircraft (such as the C-5, KC-10, and C-141), but shorter range aircraft can and do perform strategic airlift. Airlift is apportioned according to priorities to airlift customers in accordance with the NCA direction. USCINCTrans exercises COCOM of strategic airlift operations and executes OPCON of strategic airlift operations through the commanders of AMC and ACC (ACC provides up to 50 C-130 aircraft and air mobility support personnel and equipment to USTRANSCOM as defined by the Unified Command Plan "Forces For" document) (Air Force Doctrine Document-30, 1995:8). A key point is that USTRANSCOM has COCOM of forces that are not organized and trained or equipped by one of its component commands. Memorandums of Understanding exist between USTRANSCOM and USACOM to transfer those forces from USACOM to USTRANSCOM at the onset of a contingency response (DIRMOBFOR, 1996).

Theater airlift is the common user system that primarily operates within a CINC's theater of operation. Aircraft performing theater airlift have traditionally been smaller, shorter range aircraft such as the C-130 or C-27. Theater airlift apportionment and control is now normally defined as follows:

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 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 forces are attached by the SECDEF. (Air Force Doctrine Document-30, 1995:8)

Semantics of airlift classification have been challenged. Theater airlift aircraft can and do perform strategic airlift, while strategic aircraft can perform theater airlift. AMC's newest airlifter, the C-17 is a true "multi-role airlifter" that is capable of performing both the strategic and theater missions very well. "The C-17 merges into one airframe what AMC now has to do with two or three different airframes. It blurs the distinction between tactical and strategic airlift" (Devereaux, 1994:50).

To summarize, theater airlift is primarily performed by mobility aircraft and support systems owned by the geographic CINCs and operated by their component commands. USTRANSCOM's mobility forces are primarily concerned with intercontinental or strategic mobility. Theater airlift is the role the aircraft and support system is performing regardless of the type of weapon system is performing the role. The same analogy applies to the strategic airlift role.

Air mobility's two cycle movement. As a system, the air mobility forces act in a two cycle movement. The strategic system cycle is focused on heavy, long-range movement between theaters, while the theater system is specialized, (in context of its air logistics mission) with providing quick and responsive air distribution within the theater.

Thus, these two operating cycles must function in “close coordination with one another in order to provide the supported combatant commander [CINC] with responsive, capable and apparently seamless aerial movement” (Air Force Doctrine Document-6, 1996:10).

In summary, there is one centrally controlled mobility system that operates a primarily strategic cycle, while the theaters themselves are operating their own mobility cycles to support their geographic CINCs. Meshing the cycles between the strategic and theater systems is an important element in achieving an effective interface (Air Force Doctrine Document-6, 1996:12).

The dual identity of theater airlift. The purpose of theater airlift is to “support the plans, operations, and priorities of the geographic combatant commander. Theater airlift is doctrinally determined to have a dual identity: it is both an air operating force and an element of the air logistic support system. Theater airlift organization should reflect this dual nature” (Joint Pub 3-17, 1995:I-2).

As an element of the air logistics system, theater airlift operates in close coordination with the strategic mobility system in order to transship people and equipment from the theater Aerial Ports of Debarkation (APODs) to the final destination.

As an air operating force, theater airlift provides the attribute of combat delivery that is a part of the geographic CINC’s campaign effort. To illustrate: when airlift is participating in the combat aerial delivery of personnel and or equipment, they operate in concert with other theater air forces (such as fighter aircraft to suppress enemy air defenses) in order to employ combat force to an objective area. The combat airdrop of

forces in Panama for Operation JUST CAUSE is an illustration of the employment of combat force to an objective area (Murin, 1996). USTRANSCOM forces can and do participate as the employment of combat force as well. AMC's use of strategic air assets that perform the strategic brigade airdrop mission for US Army airborne forces is an illustration of participation to employ combat force. The distinction however is that theater airlift missions emphasize the employment of force to a much higher degree than strategic [intercontinental] employment of force. The significantly greater unilateral and joint training of theater airlift forces reflect the substantial difference of the air operating focus between theater and strategic air mobility forces.

The Permanent Air Mobility Agencies and Peacetime Process

Organization. Air mobility is functionally aligned. USCINCTRANS executes its air component AMC, primarily to support intercontinental air movement. The geographic CINCs and their air component commands execute and operate theater airlift forces, for primarily theater air distribution and employment training of theater combat forces. Transshipment between the two air mobility systems occurs at the theater airlift hubs.

The permanent air mobility agencies. The following agencies are the permanent agencies that impact the peacetime and contingency air mobility process. These agencies also provide guidance and support to the staffs that stand up for contingency operations.

USCINTRANS. The Commander in Chief, USTRANSCOM is the single manager of the defense transportation network. USCINTRANS owns the forces and operates the system to move people and equipment from the POE to the POD. USCINTRANS provides forces to the theater to augment theater lift movement, but retains OPCON of many of those forces in order execute the nation's two MRC security strategy if called upon.

AMC. Air Mobility Command is the air agent of USTRANSCOM which exercises OPCON of USTRANSCOM's assigned air mobility forces.

Air Force Component Commander (AFCC). The AFCC is the US Air Force component commander assigned to a CINC. For example, the combatant commander of US forces assigned to the Pacific is USCINCPAC (normally a four star admiral). The AFCC assigned to USCINCPAC is the Commander, PACAF (Joint Pub 3-0, 1995:II-5).

Mission Control Center (MCC). USTRANSCOM's center to validate, determine and coordinate the specific mode of a transportation request. Once approved, tasking flows to the appropriate component command staff (for air mobility movement this would be AMC's TACC) to work with the customer to plan and execute the movement request. They are the primary point of coordination between USTRANSCOM and the geographic CINC's Joint Movement Centers (JMCs) for coordination of logistics requirements and other requirements to be accomplished by forces assigned under USTRANSCOM. For example, deliberate planning encompasses a Time Phased Force

Planning Deployment Document (TPFDD) which is the geographic CINC's pre-approved "game plan" for USTRANSCOM to schedule to provide needed assets for contingency operations. The MCC's concept of operations is called "centralized control and decentralized execution." This means that subordinate organizations such as AMC's TACC provide the more detailed planning, coordinating and control of forces necessary to accomplish the mission (DIRMOBFOR, 1996). The MCC organization resides under USTRANSCOM's J-3/4 operations/logistics directorate. The corresponding geographic CINC's JMC is located under their J-4 Logistics Directorate (Evans, 1996).

Joint Movement Center (JMC). The JMC is the combat commander's validation, tasking, movement planning and monitor of the theater airlift system, which is normally embedded under the joint director of logistics on the Unified Command staff (Joint Pub 3-17, 1995:III-1).

Tanker Airlift Control Center (TACC). The TACC is AMC's centralized command and control center for the planning and execution of the command's Global Reach mission. All tasking, coordination, planning, and execution monitoring of AMC OPLAN missions is done at this centralized command center. They provide a key role in coordinating with the deployed AME/ALCC/AOC in contingencies or theater airlift planning staffs under normal periods for strategic air mobility support of theater lift requirements.

Theater airlift planning staffs. The theaters do not have a standardized airlift control staff to organize, plan, command, and control the theater airlift process. In

Europe, this task is divided between the European Airlift Requirements Center, the USAFE operations staff, and the 86th Airlift Wing (Evans, 1996). This is a key reason why there are difficulties between the USAF MAJCOMs do not interface effectively for air mobility efforts, the operational planning and use of airlift force by the overseas theaters is fractured, making efforts to coordinate with theater agencies by AMC's TACC more difficult to achieve. Standardizing airlift agencies and their duties between USAF MAJCOM's who operate air mobility, would greatly help the current system. One way of consolidating and standardizing theater airlift command and control efforts is to establish a permanent peacetime structure that mirrors contingency doctrine: have a full time theater Airlift Control Center (ALCC). This will be described further.

AFCC/DO, AMC/DO. These general officers are their respective command's Director of Operations.

USTRANSCOM J-3/4 Director. USTRANSCOM's Director of its Operations and Logistics Directorate.

Numbered Air Force (NAF). Organization subordinate to USAF MAJCOM that administratively controls a portion of the USAF wings and forces assigned to the MAJCOM.

Thus the hierarchy of command between the theater and strategic air mobility systems is depicted as follows:

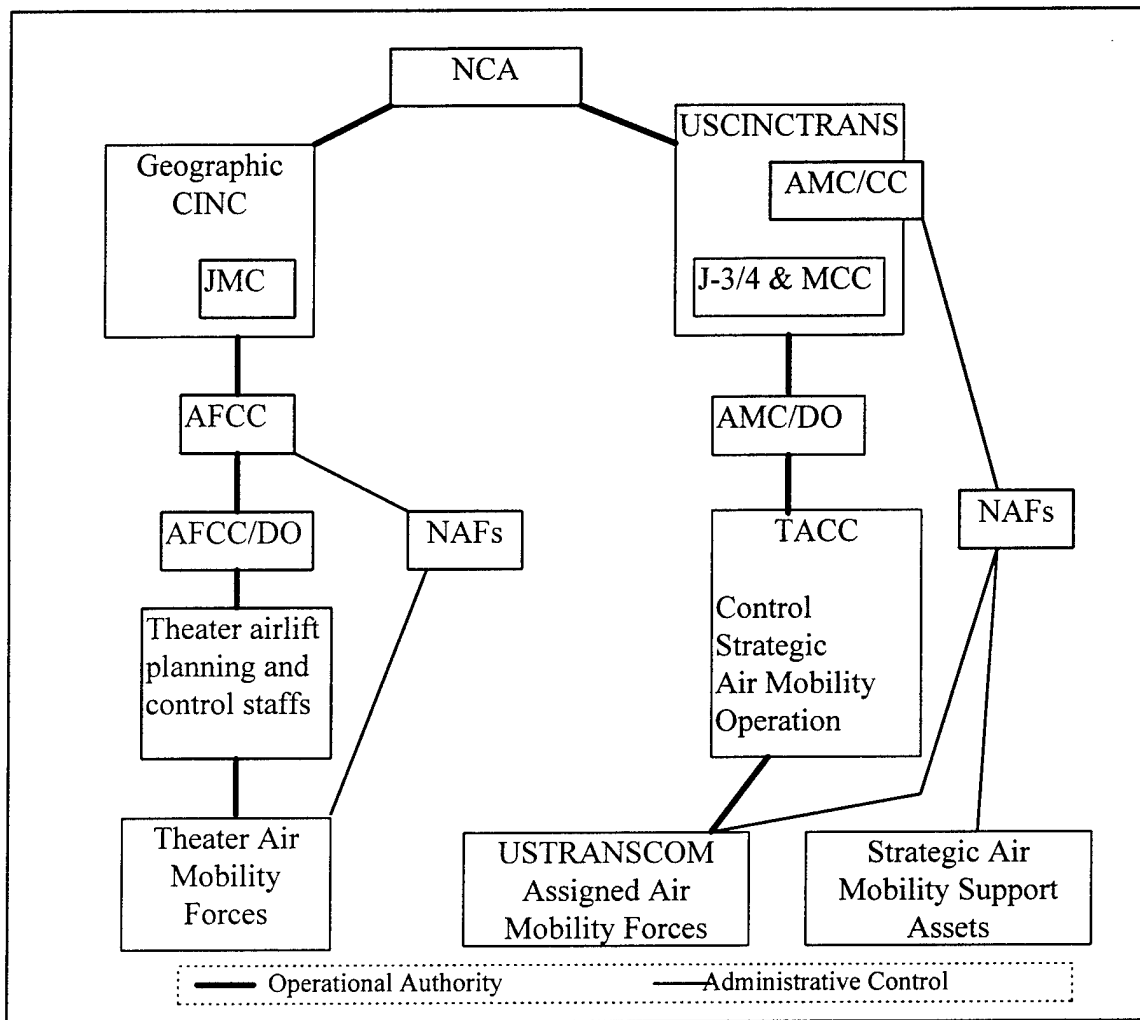


Figure 1: The Permanent Hierarchy of Command For Air Mobility Forces

The peacetime airlift process. Currently, the air mobility process works as follows: air mobility customers request lift (such as the amount of material to be moved and time needed at the destination) from either USTRANSCOM or the theater's unified JMC, if the customer is not CONUS based. In the case of a CONUS based request, USTRANSCOM's MCC validates the air mobility mission and tasks AMC for execution.

AMC's TACC then coordinates and schedules the mission, manages, and monitors execution. If ACC owned theater assets are necessary to perform the mission, TACC coordinates with ACC wings who operate airlift aircraft for tasking, while retaining mission management and monitoring duties (DIRMOBFOR, 1996).

In the case of non-CONUS based airlift requests, the airlift customer normally contacts the theater's unified JMC to request the lift. The JMC validates and determines if theater assets can perform the mission. If the theater can handle the request, the theater Air Force airlift agencies coordinate, schedule, manage, and monitor execution of the mission. Because theater airlift assets are almost exclusively C-130s, they are the chosen vehicle to perform the lift, regardless whether movement by an AMC asset such as a C-17 or C-141 would result in a more efficient effort (DIRMOBFOR, 1996).

This is a point where command separation of airlift forces causes inefficiency of operations. An integrated airlift system that can schedule the most appropriate assets against an airlift requirement, regardless of command ownership, can improve efficiency of the airlift system. Under the current multi-command structure, what is needed is to get the USAF theater commands and AMC to directly coordinate and cooperate better to use the most appropriate assets to perform the lift.

Currently, if theater airlift cannot accomplish the lift request, then coordination between the JMC and USTRANSCOM is necessary to schedule the lift using USTRANSCOM assets. Once USTRANSCOM's coordination and validation has been

accomplished, the JMC often works directly with TACC to coordinate and manage execution of the lift (Evans, 1996).

The following figure is a graphical relationship of the normal peacetime air mobility request, validation, tasking, command and control, and execution process. Note this is designed to show working level process, not command hierarchy.

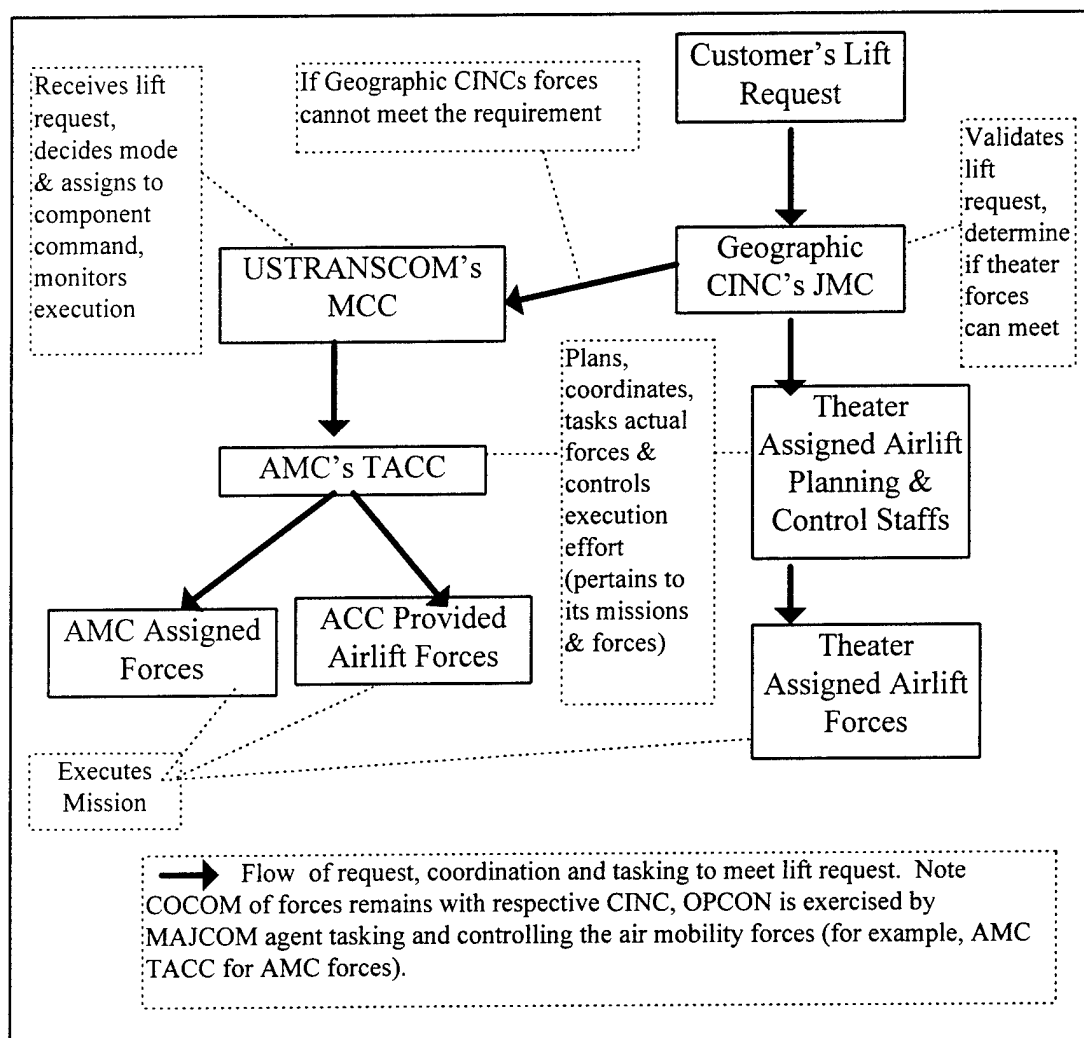


Figure 2: Normal Peacetime Air Mobility Coordination Process

Note that this figure shows the process as it “normally” occurs in peacetime. The customer is represented as residing within the CINC’s theater vested with the CINC’s authority to request air mobility support. Customers can become confused based on their requirements in whom should they call first--mobility managing agents under the geographic CINC or USTRANSCOM. To illustrate, a US Army unit in Europe that needs equipment moved from the CONUS to a forward location in the European theater, should coordinate the lift with the theater JMC, who in-turn will coordinate with USTRANSCOM’s MCC to schedule the intercontinental lift. However, such customers will often try to coordinate two separate lifts, simultaneously coordinating with both MCC and the JMC. This causes disconnects and confusion of which command provides what to the customer (Evans, 1996).

The Contingency Air Mobility Agencies and Process

This section describes the current command and planning staff agencies’ structure that organize the military contingency response (the hierarchy of command). Also described is the process that relates the command and control structure to the actual process for movement.

Organization. In addition to the agencies that were previously described, the following details the additional staffs and structure that “stand up” to facilitate the increased air mobility tempo to support a contingency operation. The temporary structures are necessary to provide appropriate command and control to the designated warfighters. In contingencies, 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.

Since airlift is nearly always supporting a JFC or a specific user, the supported/supporting relationship is important in defining authority and responsibilities during airlift operations (AFDD 30, 1995:11).

The agencies that stand up for contingency operations. The following are temporary agencies that command and contribute to the military response for contingency operations.

Joint Forces Commander (JFC). The JFC is the US combatant commander of a regional conflict. "JFCs synchronize the actions of air, land, sea, space, and special operations forces to achieve strategic and operational objectives through integrated, joint campaigns and major operations" (Joint Pub 3-0, 1995:II-5). Note, for combined nations' operations, the JFC would also be the senior US commander present.

Along with the supported CINC, the JFC and the Joint Forces Air Component Commander (JFACC), are top echelon customers of the mobility effort. The JFC for a contingency may be the geographic CINC, or the CINC may appoint a JFC to conduct the campaign on behalf of the CINC. For Example, in DESERT SHIELD and STORM, General Schwarzkopf as previously described, was the CINC of USCENTCOM, (the unified command encompassing the Southwest Asian region) and retained status as the JFC. The JFC (along with the Joint Force Component Commanders) determines air mobility effort needed to support the campaign or contingency plan. In essence, the JFC

is a single point of contact (POC) for executing US military operations in the geographic region.

Joint Forces Air Component Commander (JFACC). The JFACC and or the AFCC is the “air boss” who devises the air campaign. These positions fall under the JFC. The JFACC and/or the AFCC will determine a how much involvement theater air mobility is needed to support the air campaign. They detail to the AOC what the theater air assets will need to do to meet the objectives of the CINC’s campaign plan. The JFACC/AFCC has OPCON of theater air forces. They provide a single POC for the geographic CINC for theater air assets.

The JFACC’s responsibilities will be assigned by the JFC (normally these would include, but not limited to, planning, coordination, allocation and tasking based on the JFC’s apportionment decision). Using the JFC’s guidance and authority, and in coordination with other service component commanders and other assigned and supporting commanders, the JFACC will recommend to the JFC apportionment of all air sorties to various missions or geographic areas...the JFACC will normally be the component commander having the preponderance of air assets and the best capability to control and direct joint air operations. (JFACC Primer, 1994:1)

To illustrate, in DESERT SHIELD/STORM, General (then Lieutenant General) Charles Horner performed the role of the JFACC (JFACC Primer, 1994:5). General Horner was General Schwarzkopf’s single air boss for the campaign. Note, not all theater air forces assigned will be organized under the JFACC. For example, Marine close air support units exist to provide support of Marine ground units exclusively, and do not integrate or operate with other theater air forces (JFACC Primer, 1994:12).

It is possible that the JFC for a conflict and that Joint Force Commander's JFACC could be the assigned CINC and the AFCC respectively. But it is important to note that the JFACC role is that of overall air boss of the theater's air forces, (exercising control over US Marine, Navy and Army air forces) with the intent to provide "unity of effort for employing air power for the benefit of the joint force as a whole." (JFACC Primer, 1994:11).

The Director of Mobility Forces (DIRMOBFOR). The DIRMOBFOR as currently defined, is the key liaison and coordinating authority between the geographic CINC and the CINC's assigned air commander, mobility staff, theater airlift forces and USTRANSCOM's component command staff and operating forces. The DIRMOBFOR works for the theater JFACC/AFCC, but usually is a deployed AMC person. The DIRMOBFOR, along with the AME, works to integrate theater and strategic mobility systems. In the current "liaison" relationship, the DIRMOBFOR is essentially a member of the JFACC/AFCC's staff along with the AOC director.

This arrangement is normally reserved for contingency operations using air mobility. Often it has been the talents of the assigned DIRMOBFORs to form a team and cobble together working solutions that has made recent mobility support of contingency operations successful, despite a difficult command and control arrangement. As defined by Joint Publication 3-17:

The DIRMOBFOR will normally be a senior officer who is familiar with the Area of Responsibility or Joint Operations Area and has an extensive background in airlift operations. When established, the DIRMOBFOR serves as the designated agent of the Joint Forces Air Component Commander (JFACC) or Air Force Component Commander (AFCC) for all airlift issues. The DIRMOBFOR exercises coordinating authority between the Airlift Coordination Center (ALCC), Air Mobility Element, (AME) (or TACC if no AME is deployed), Joint Movement Center (JMC) and the Joint Air Operations Center/Air Operations Center (JAOC/AOC) in order to expedite the resolution of any airlift problems. (Joint Pub 3-17, 1995:II-3)

The DIRMOBFOR is a coordination authority. As defined by Joint Pub 3-0:

Coordinating authority is a consultation relationship between commanders, not an authority by which command may be exercised...the commander or individual has the authority to require consultation between agencies involved, but does not have the authority to compel agreement. (Joint Pub 3-0, 1995:II-10)

Thus, effectiveness of the air mobility operation rests on the shoulders of the DIRMOBFOR, yet he or she has no command authority to direct the mobility operation. The senior officer perspective of this position offers contingency mobility expertise, and is a vital coordinator between theater and strategic mobility systems.

Commander of Mobility Forces (COMMOBFOR). The

COMMOBFOR is similar to a DIRMOBFOR with one important difference. The COMMOBFOR was the historical predecessor of the DIRMOBFOR, who commanded theater air mobility forces, and commanded strategic air mobility forces for a specified period (prior to the COMMOBFOR, the position was called the Commander of Airlift Forces or COMALF--the command relationship was the same as the COMMOBFOR). The COMMOBFOR could command forces to achieve the mission. The best the DIRMOBFOR can do is to coordinate between the commanders providing the forces. It

is important to note the COMMOBFOR plays a key role in the contingency airlift proposals detailed in this project.

Joint Air Operations Center/Air Operations Center (JAOC/AOC). A

JAOC (air operations center (AOC) if a JFACC is not designated) is the organization through which the JFACC controls joint air operations. Normally theater airlift coordination is incorporated in the JAOC/AOC (Joint Pub 3-17, 1995:II-1). The JAOC/AOC's primary functions are to coordinate the air campaign, de-conflict and build the Air Tasking Order (ATO). The JAOC/AOC also is the primary agency to integrate theater air defense, air refueling, airborne surveillance, and command and control aircraft. The JAOC/AOC, its embedded Airlift Coordination Center (ALCC) and the collocated AMC Air Mobility Element (AME) are areas where the potential exists for conflicting goals of how the air mobility operation should run.

Airlift Coordination Center (ALCC). The ALCC is the JFACC's planning, coordination and manager of theater airlift forces. The ALCC used to be the direct supporting staff of the Commander of Airlift Forces (COMALF) or later the COMMOBFOR, that would singly integrate and manage all theater airlift and coordinate all strategic airlift coming into a theater. Now the ALCC can be, and often is, embedded in the theater's Air Operations Center (JAOC/AOC), whose director reports to the JFACC. Under the two airlift management structures, the ALCC has to ensure coordination with the AMC deployed Air Mobility Element (AME) (Joint Pub 3-17, 1995:II-2).

The JAOC (and embedded ALCC) provides a single POC (the AOC Director) to organize and task the JFACC or AFCC's air campaign.

Air Mobility Element (AME). The AME is the deployed agent of AMC from an Air Mobility Operations Group (AMOG). The AME provides air mobility expertise to the theater, but AMC does not transfer OPCON of this agency to the theater command. The AME works alongside the ALCC. The AME coordinates strategic air mobility asset integration with the theater mobility effort:

The AME deploys to the theater as an extension of the AMC [Tanker Airlift Control Center] (TACC) upon [geographic CINC's] request. They coordinate with the theater airlift management system and collocate with the JAOC (or AOC) whenever possible. They provide 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. (Joint Pub 3-17, 1995:II-5)

As the staff managers of the strategic mobility process on behalf of the DIRMOBFOR, the AME (whether collocated with ALCC or a stand alone organization) is the "eyes and ears" of the TACC in a forward deployed sense. The AME provides a link to the TACC to assist the TACC's support of the strategic air mobility effort to the theater. Effective coordination between the ALCC and the AME elements directly improves the strategic to theater movement. The AME "provides the necessary coordination and interface of the strategic air mobility system (airlift and air refueling) within the theater air mobility and logistics system through communication with the ALCC, TACC, theater Joint Movement Center (JMC) and in-transit strategic mobility forces" (Air Force Doctrine Document-6, 1996:12).

The contingency operations process. Figure 3 depicts the current command and control doctrine relationship between USTRANSCOM (in this example, the supporting CINC) and its air component, AMC, and the supported CINC and respective Air Force Component Commander:

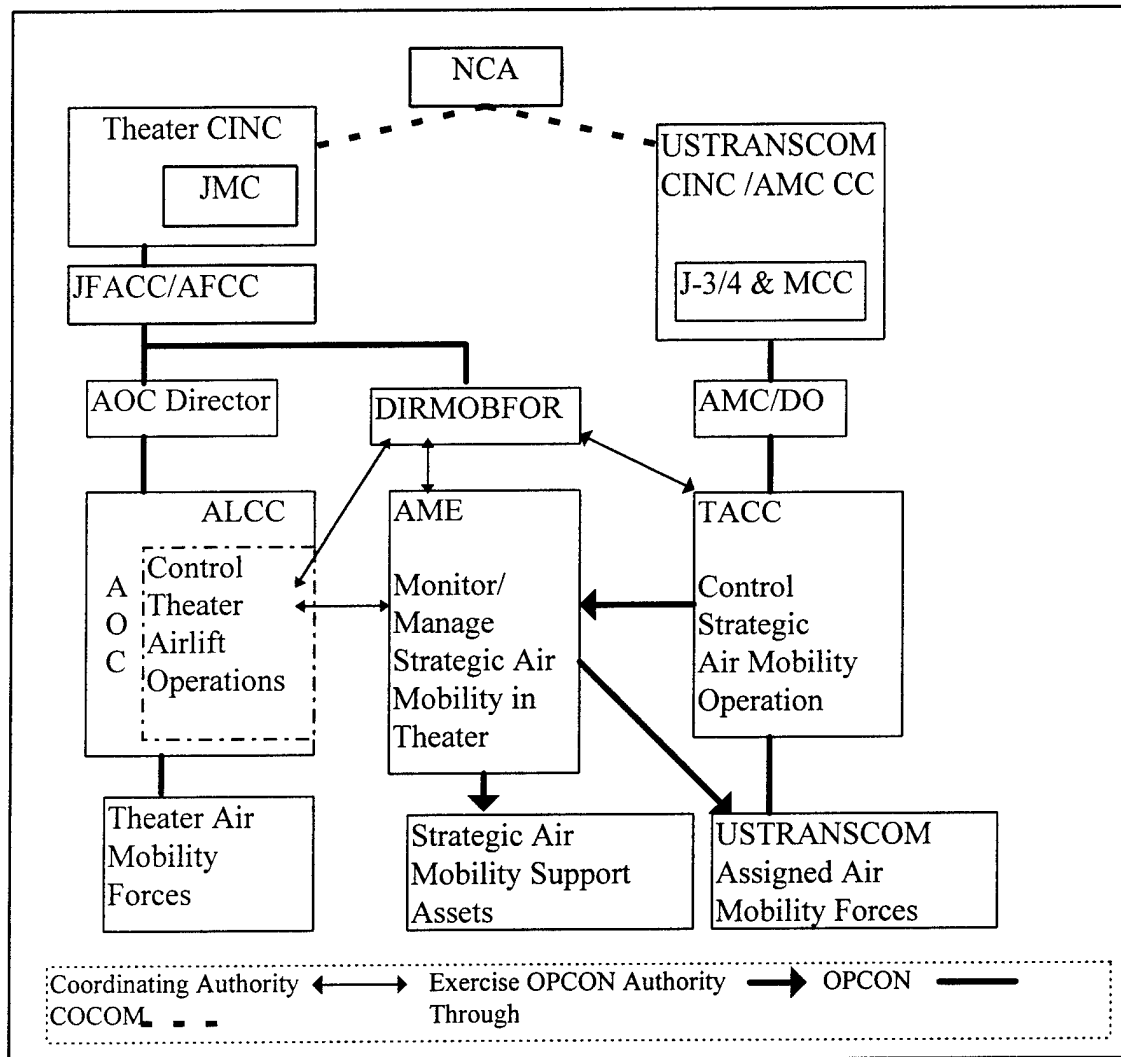


Figure 3: Current Contingency Doctrine for Mobility Command & Control (DIRMBOFOR, 1996)

Figure 3 represents current doctrine for contingency operations. This relationship is currently considered a primary example for integrating the agencies that would execute a contingency air mobility operation. The JFACC (or AFCC) is the theater air boss. The AOC director and the AOC itself is intended to be the single staff coordinating agency for all theater air operations. The DIRMOBFOR is the senior air mobility coordinating authority, the AME supports the JFACC/AFCC (through the coordination of the DIRMOBFOR) for strategic air mobility movement. The ALCC may or may not be embedded within the AOC. The ALCC is focused with the theater airlift effort, and is normally embedded within the AOC. AMC retains OPCON of its strategic air mobility forces (and the AME), while the theater AFCC retains control of its theater airlift forces.

Figure 3 illustrates the AME through the Strategic Air Mobility Forces, as “exercising OPCON through” from the TACC through to the deployed forces. This in essence, describes that the AME is for the purpose of a “single unbroken chain of OPCON,” a forward portion of the TACC. In this case, TACC OPCON of assets actually remains with the TACC, however, the deployed AME exercises OPCON for deployed forces that are COCOM to USTRANSCOM.

The thin two-way arrows show coordinating authority as exercised between the ALCC, DIRMOBFOR, and AME. The interface provided by the AME and the DIRMOBFOR is vital for meshing the strategic and theater mobility systems.

Thus, the above described contingency command relationships is then interfaced with the process for air mobility flow as depicted below:

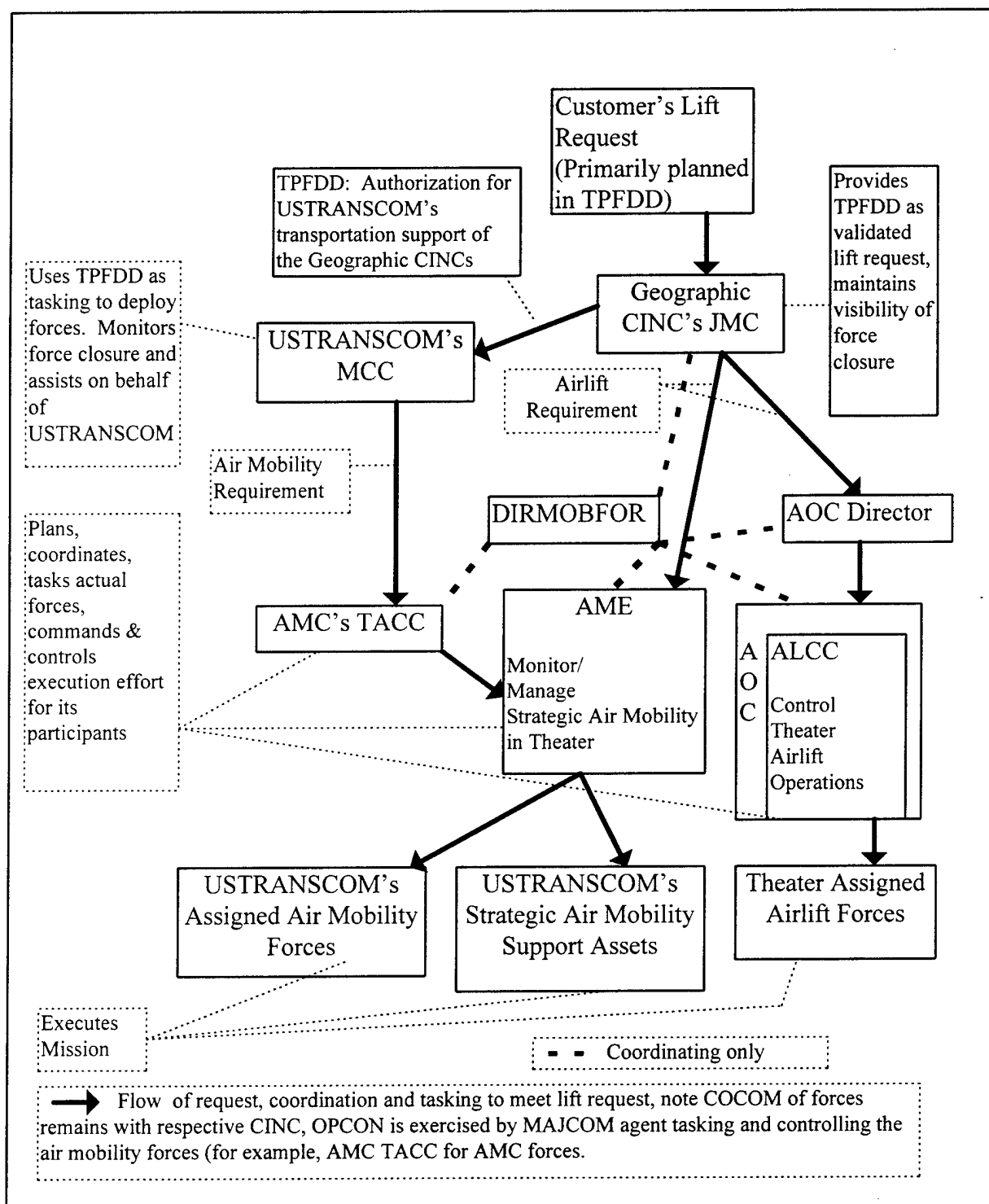


Figure 4: Contingency Air Mobility Coordination Process

As discussed, the interaction between the CINC's for deploying forces is based on the TPFDD, while the ALCC, DIRMOBFOR, and AME "stand up" to marshall and integrate mobility forces. The mobility process for US support of a geographic contingency thus is as follows: the plan for supporting a deployment for a contingency operation is the Time Phased Force Deployment Document (TPFDD), which is a coordinated document between the geographic CINC's JMC and USTRANSCOM's MCC. Once executed, the TPFDD is USTRANSCOM's validated theater lift request, which USTRANSCOM uses to mobilize and task its subordinate staffs and forces to support. On-going theater movement requests normally go into the JMC, where they are validated, and transferred to the AOC and ALCC. The ALCC then coordinates for the theater lift movement. Meanwhile, strategic lift into the theater is accomplished by coordination between the JMC, the AME and the MCC. The AME subsequently coordinates with the ALCC to integrate the cycle between strategic and theater mobility movement.

The control of air mobility assets for this process is USTRANSCOM who retains OPCON of its forces through its air component AMC, while the theater retains OPCON of its forces as well. Theater airlift augmentation forces provided by USACOM most often transfer OPCON to the geographic CINC for the contingency.

The difference in the peacetime versus contingency structure is that the theater's airlift efforts are expanded, and placed under the command of the JFACC (through the AOC Director, AOC and ALCC staff elements). The increased operations tempo often

requires deployed USTRANSCOM forces (the AMC AME) to coordinate with the theater airlift planning and execution effort, to integrate the strategic air mobility effort with the theater airlift operation.

Doctrinally, the DIRMOBFOR, serves to de-conflict the separate planning and execution elements. There are instances, where the DIRMOBFOR has been informally more commander than coordinator (ACC/DOOM, 1996). It can be argued that this is “turf grabbing” or more likely, done out of necessity, because the mission warranted such leadership.

III. Historical Lessons From Air Mobility Operations

The following paragraphs highlight illustrations of previous efforts and difficulties in achieving an effectively integrated air mobility system. As the material suggests, the struggle between USAF commands over the operation and control of airlift has not really focused on creating an effectively interfaced system. Instead, it has centered on whether or not to structure airlift under a central command and control, which affects the integration between theater and strategic airlift cycles.

Prior to World War II

The air transport program began in January, 1932. The program consisted of transport aircraft owned and operated by individual air depot districts. Accordingly, air transport was a decentralized program that lacked any of the benefits of centralized control and execution. However, Lt Col Albert Sneed, an air depot commander, presented a first effort at harnessing the effects of air transport:

He urged that Air Corps officers had too limited a view of air power--they thought only in terms of destruction. There was a broader level of action he believed, the "field of transportation"....Air transportation should move to its logical destiny by expansion "to a position of equality with rail and motor transport." (Miller, 1988:13)

During that era, doctrine was evolving how to best integrate airlift into air warfare. "Air transport in major warfare should be used when practical for the supply of combat units, for evacuation, and for emergency troop movements...and that control of all airplanes in a theater of operations be centralized to the commander of that theater " (Miller, 1988:13).

Thus, even in its origins, airlift control had the genesis of the air logistics versus a combat support weapon argument. The practical doctrine of the pre-World War II era was that air transport was developed primarily as an Army Air Corps tool for its own resupply logistics. Just prior to World War II involvement, air transport infrastructure grew quickly, going from a transport wing for the Air Corps to later developing into the Air Corps Ferrying Command (Miller, 1988:21).

World War II

A former chairman of the Civil Aeronautics Agency essentially stated that division of command and control for air transport assets was duplication of effort, thus he argued for centralized control of military air transportation:

L.W. Pogue, chairman of the Civil Aeronautics Agency, ventured in June 1942 that within the air transport arena, the speed and mobility of transport airplanes had reduced "the entire world to one theater of operation." He proposed: "The sound solution is to place all war air transport operations, except for limited operations... such, for example, as those in the immediate vicinity of combat, in the hands of one command." (Williamson & Others, 1993:4-5)

US Army Air Forces during World War II had airlift divided in air logistics (air transport) that had a strategic lift focus, and tactical airlift (troop carrier) that had the combat support focus of the warfighting theater. Both types of airlift forces had independent chains of command, and little integration of effort. Command and control was a constant problem and duplication of effort resulted (Kennedy, 1994:1).

"By August of 1942, General [Harold L.] George (Commander of AAF Air Transport Command (ATC)) felt compelled to report that there had been serious interruptions in scheduled operations based on the erroneous assumption by other

commands that transport operations that traverse their areas are under their complete control” (Miller, 1988:37). AMC today can trace its lineage back to ATC.

This remark was essentially a World War II version of “who had OPCON” of airlift forces transiting a theater--the theater commander or the ATC commander? The argument of control of forces that operate within a theater has always tilted in the favor of the theater commander. It historically makes sense that the single point of contact who is waging the fight on the behalf of the NCA should have control of forces needed to perform the fight. To not have a single point of contact for control of forces hamstrings the theater commander’s ability to prosecute the conflict. Strategic forces, however, have evolved into functional alignment and control. As discussed, there were two varieties of airlift during World War II: air logistics and combat support. Even then, air logistics efforts had a global reach, and combat support airlift directly contributed to theater power projection.

The air logistics versus combat airlift support roles of airlift is a “tough to solve” issue that perennially clouded airlift efforts such as the following discussion of the “Hump” airlift.

During World War II the “father of airlift,” Lieutenant General William Tunner, while commanding the Burma airlift, was challenged by General Claire Chennault, the commander of air fighting forces in China, concerning control of “theater airlift distribution within China.” General Tunner, as a transporter who moved material into China, argued that he should maintain an essentially single control of airlift both into and *within* China, to facilitate effective utilization of assets. General Chennault argued that as

Burma airlift assets periodically performed air distribution within China, that he should control and direct those aircraft (once those assets arrived in his "theater"). External developments finally took precedence, forcing General Chennault to "allow" General Tunner to retain a "single source control" of the airlift (Tunner, 1964:116-124). These external developments were from an increased offensive from the Japanese, that required General Chennault to concentrate full time on combat operations. But the experience galvanized General Tunner's advocacy for a centralized single source airlift control of airlift forces, run by airlift experts (Tunner, 1964:124). The struggle between General Chennault and General Tunner in the hump airlift is an equivalent argument of "one boss for the theater," versus functional control of air assets.

The years between World War II and Korea saw the consolidation of separate service airlift assets under the USAF (with no real addressing of how and who should operate and control the strategic versus the theater airlift systems) (Kennedy, 1994:2).

The largest organizational issue involving air transportation during the period between World War II and Korea addressed the poor organization of air transportation between services, resulting in "overlap and duplication of effort in manpower and assets. Testimony highlighted the benefits of centralizing military transportation resources and defense traffic management. Service opposition, however, killed the initiative" (Matthews & Holt, 1995:235).

The Berlin Airlift between 1948 and 1949 was "another chapter" of General Tunner's remarkable ability to orchestrate an airlift operation. A key issue of his command was wresting of control of the airlift in order to remove the hamstrings of the

operation. In the case of the Berlin Airlift, General Tunner had to cobble together his own combined airlift team in order to conduct the mission. As the Task Force Commander, he was a combined JFC/JFACC/DIRMOBFOR in one role (doctrinally today this can still occur--however, usually only when the contingency response is a humanitarian airlift mission as was the Berlin Airlift or the Rwanda relief effort in the summer of 1994).

Due to his efforts to "carve out" the command and control authority to get the mission done, General Tunner was the theater airlift commander who worked under the theater Air Force commander (CINCUSAFE) and (informally) coordinated with the strategic airlift community of Military Air Transport Service (MATs) (Tunner, 1964:186-190). This arrangement arguably became one of the initial cases of a what became the role of the COMALF--he controlled theater airlift and coordinated strategic airlift flow (although he was limited to only informal coordination with the strategic airlift force structure, because of inter-command power struggles). MATs aircraft and forces continued to operate the established global air logistics system, they were not direct participants of the actual contingency mission.

Korea

During the Korean war, as to the major theater airlift lessons, the Far East Air Forces reported that airlift missions and priorities should be established by the theater commander; airlift cannot be allocated exclusively for the use of any service except for special one-time requirements; all theater airlift should be concentrated in one command to achieve the maximum flexibility and best utilization. The report also concluded that the assignment of both the troop carrier and transport tasks to a single airlift commander was successful in that it provided maximum efficiency and effectiveness in the utilization of the theater Air Force airlift resources. (Williamson & Others, 1993:16)

Thus the Korean conflict was supported by a divided theater airlift system, that operated as part of a divided strategic and theater airlift system. Compounding this was the fact the services operated their own separate airlift systems, for their own purposes. Korea demonstrated how difficult it could be for airlift managers to coordinate any kind of efficient airlift system because of the large number of airlift efforts operating towards different goals.

Between Korea and Vietnam, agreements between the US Army and the USAF were established in order to consolidate service rivalry on airlift and airlift asset control and operation. It essentially removed the Army from the strategic and theater airlift business, with the Secretary of the Air Force being designated as the single manager of airlift service for the DoD (Kennedy, 1994:3-4).

Vietnam

Vietnam also proved again the need to establish a centralized command and control of airlift forces to avoid duplication of effort and needlessly exposing airlift resources to hostile action. Within Vietnam, there were initially separate organizations and control of theater airlift (Devereaux, 1994:8).

One official Air Force report on Vietnam--the Lindsay report--called attention to the fact that:

Duplication and/or overlap of responsibilities and functions occurred in aerial ports, airlift control elements/airlift command post/support squadrons, aeromed evac, mobile ALCEs, mobility teams and combat control team functions. In this case, there were two airlift forces with similar capabilities performing within and between an area command. The report recommended that all Air Force airlift assets be assigned to a single organization. (Williamson & Others, 1996:24)

Single control was argued in many forums as to who should control and schedule the assets: theater or centralized command. Divisions were forced between the variety of different air mobility airframes based on the individual aircraft's capabilities and range. The continued quest for control of airlift assists based on finely described differences in the type of airlift mission, finally resulted in the Corona Harvest Report advocating a "single airlift manager" in 1974 (Devereaux, 1994:12).

Single Airlift Control: The MAC Era Between 1974 and 1992

In a Program Decision Memorandum in July 1974, the Secretary of Defense directed the Air Force to consolidate all strategic and tactical airlift under the Commander, Military Airlift Command (MAC), who became the specified commander for airlift...the Joint Chiefs of Staff amended the Unified Command Plan effective 1 February 1977. The Commander in Chief, Military Airlift Command (CINCMAC), was named the commander of a specified command comprising all forces assigned for the accomplishment of his military airlift missions during wartime, periods of crisis, JCS exercises, and as necessary to ensure the operational support to other unified and specified commands. (Cole & others, 1993:48-49)

Theater airlift was managed by the MAC overseas air divisions, who were fully integrated within the total airlift system. "Seamless airlift" resulted from a single system that featured airlift experts, who operated at each juncture, and who understood the entire airlift system to transport men and equipment from the US based "fort" to the theater "foxhole." A key point here is that, a multiple command mobility system can achieve the same effect as the single system by fully integrating the systems and by having airlift expertise, regardless of whose commands they operate under at the key junctures of the mobility process. However, in order for a multiple commanded mobility system to achieve this, all of the commands who operate the mobility forces need to make a uniform and coordinated commitment to provide for their "share" of the system.

A key issue resulting from the consolidation of forces under MAC was the issue of command and control support of airlift forces to the theater commanders. The Goldwater-Nichols Act of 1986 further spelled out that control of assets was needed by the warfighters, to eliminate competing concerns other than the geographic CINC, within the CINC's AOR. The following contingency command and control arrangement was MAC's answer to provide theater airlift forces to the geographic CINC and TACON for transient strategic forces to the CINC's theater (DIRMOBFOR, 1996):

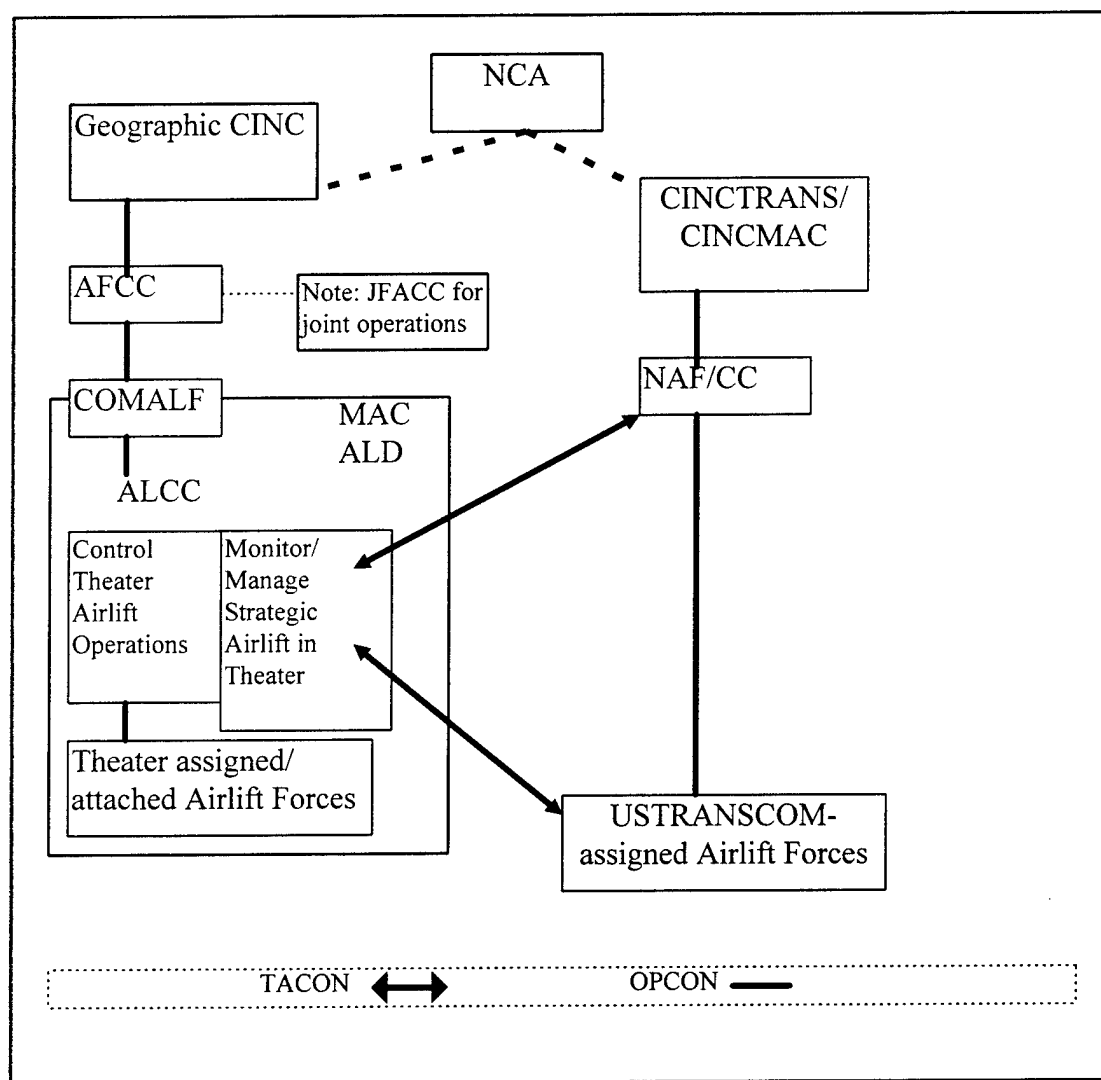


Figure 5: Pre-1992 Doctrine for Contingency Airlift Command & Control (DIRMOBFOR, 1996)

The pre-1992 structure had the MAC airlift divisions (ALDs) carrying out the planning, coordination, command and control efforts for the theater mission and transient strategic missions. The MAC airlift divisions worked in synchronization with the command and control center at the respective Numbered Air Forces (NAFs). The standup of the TACC essentially combined the efforts of the previous two MAC NAF command centers, and a portion of the theater MAC ALDs that managed transient strategic movement in the overseas theaters. The overseas theaters took over theater management aspect of the MAC ALD.

Similarities between pre and post-1992 contingency command and control structure. Comparing Figure 2 (the current mobility command and control doctrine for contingency operations), with Figure 4 (the pre-1992 contingency command and control arrangement), the similar features are:

- 1.) There was a centralized CONUS airlift command center--pre-1992, the MAC NAF currently accomplished by the TACC.
- 2.) There was a theater planning staff--pre-1992 the COMALF and the MAC ALD ALCC, the current is the theater ALCC under the AOC Director.
- 3.) Theater airlift was subordinate to the JFACC/AFCC.
- 4.) Strategic air mobility not supporting theater operations remained under control of the strategic system--pre-1992 this was controlled by the MAC NAF--currently controlled by the TACC.

5.) Transient strategic air mobility forces supporting the theater contingency mission were controlled the pre-1992 era by the COMALF and MAC ALD, and currently are by the AME.

Differences between pre and post-1992 contingency command and control structure. The differences between the pre-1992 era and the current doctrine arrangement are listed below:

1). The DIRMOBFOR is a coordinator, who de-conflicts and provides guidance. The COMALF was a subordinate commander to the JFACC.

2.) The MAC ALD integrated the efforts for the theater while being directly tied into the MAC strategic system. This allowed the COMALF and the MAC ALD to build air mobility support based on the most suitable asset and support package. Today, some theater missions are flown by C-130s that would be better accomplished by C-17s or C-141s, but are used because strategic forces are not as immediately available to the theater commander. The opposite holds true for missions tasked to AMC (DIRMOBFOR, 1996).

3.) Theater airlift planning and execution was accomplished in the pre-1992 era by air mobility experts within the MAC ALD, and supervised by the COMALF. Today's ALCC continues to have air mobility expertise, but separation of the ALCC and the AME fractures planning effort. The ALCC, under the command of the AOC Director, who primarily is not steeped in airlift expertise, has to turn to the informal guidance provided by the DIRMOBFOR. Thus, a separate AME from ALCC divides the planning effort for contingency airlift operations. Further, a DIRMOBFOR who advises

without leading, is an under-use of a senior military officer. Military operations should be run through a clear concise command structure. What is needed is to have a single commander OPCON responsible to the JFACC and theater chain of command who will organize and lead the air mobility effort, with authority to command theater airlift and leverage to obtain needed support from strategic air mobility forces to support the contingency operation.

What's missing between pre-1992 and the current structure? Between the pre-1992 command arrangement and the current, there are essentially the same functions required to plan and execute a contingency air mobility operation. There are more defined agencies now to accomplish that effort. The reason for this is because there are two defined and separated air mobility systems, that requires each system to provide for its own forces and integrate with the other system. Many of the jobs remain the same, but there are just more partitions between the personnel.

However, as discussed, the effort for contingency air mobility suffers because of the loss of the COMALF, (or COMMOBFOR) who provided overarching command to the JFACC for the planning and execution effort. What is not displayed is the relationship between the unified command's movement centers and their subordinate commands, prior to 1992, those agencies were evolving to their present state.

Operation DESERT SHIELD/STORM

USTRANSCOM and its air component, MAC, were fully engaged in the entire air movement system. Strategic airlift moved cargo into theater, which was then handed over to the theater airlift forces who transported the cargo to the final destination. The

Commander of Airlift Forces, Lieutenant General Edwin Tenoso (then a Brigadier General), was a deployed MAC leader who served the theater JFACC, and ran the theater airlift in coordination with MAC for incoming strategic airlift cargo (Leiser, 1991). Single management of the airlift resulted in the control of all theater mobility forces by the deployed MAC COMALF who was OPCON under the JFACC and JFC for orchestrating theater airlift, while having a direct connection to exercise TACON for strategic airlift forces and flow into the theater. As a result, the airlift was appropriately apportioned as requested by the customer, the warfighting CINC:

Initially, airlift was a top priority[for the buildup of forces in theater]...we (MAC) always focus on pushing things forward....Now, as we were doing this, we certainly were working the priority system with USCENTCOM (the supported CINC)...to properly apportion all available military and civilian lift. (Matthews & Smith, 1992:5-6)

In essence, the MAC theater airlift system that deployed to the gulf war remained plugged into the parent MAJCOM. The COMALF was essentially a forward deployed MAC operator who was immediately available to the customer--the geographic CINC--to command, organize and accomplish theater airlift and coordinate strategic airlift into theater with the control elements of MAC. "During Operations DESERT SHIELD/STORM, theater airlift provided the theater CINC the means to effectively air transport high-priority/readiness-critical equipment, supplies, and personnel from strategic ports to the forward operating bases" (Bailey & Reed, 1992:2).

USAF Restructuring of Airlift Forces in 1992

The Air Force was reorganized under the Global Reach - Global Power strategy following the conclusion of the Cold War. The USAF Chief of Staff, General Merrill McPeak, restructured the Air Force along the belief that theater USAF component commanders need to command all theater assets as a unified whole within their theaters. Towards that belief, AMC became the lead advocate and manager for all tanker and airlift. That same year, the Secretary of Defense vested USCINCTRANS as the DoD Single Manager for Transportation for both peace and war, changing USTRANSCOM's original wartime only charter which had been established when the command was formed (Kennedy, 1994:8-9). This realignment was more in-line with the original intent of the Goldwater-Nichols Act of 1986.

Under the direction of General McPeak, MAC stood down as the single "air mobility" manager for DoD and AMC stood up as the "strategic" air mobility manager (still as USTRANSCOM's air component). The geographic CINCs received COCOM of theater airlift forces residing within their theaters, and their USAF component commanders operated those theater airlift forces (McPeak, 1995:61-66, 147-148).

General McPeak's policy decision was to essentially break up the single mobility manager for the USAF, dividing along the distinction of strategic and theater missions and shifting control of the theater assets to the theater commanders. It was General McPeak's belief that theater airlift is more responsive to the theater it serves if the full control (vice operational control--the ability to tell airlift forces where/when to fly during

contingency operations) of those theater assets which belonged to the theater Air Force commander (McPeak, 1995: 91-93).

An axiom that follows General McPeak's philosophy of centralized control of theater forces is aligned along this thought: "Air warfare cannot be separated into little packets; it knows no boundaries on land and sea other than those imposed by the radius of action of the aircraft; it is a unity and demands unity of command--Air Marshall Arthur Tedder" (Meilinger, 1996:55).

The idea to allocate theater air mobility assets to the USAF theater commander was originally advocated by General McPeak while he was serving as the Pacific Air Forces Commander, "in order to consolidate air assets under a single commander" (Krisinger, 1995:32). General McPeak reasoned that "the Air Force's organizational structure had moved away from simplicity in command structures and to a general reliance on a single controlling authority in theater operations" (Krisinger, 1995:32).

The 1992 reorganization of the structure of airlift was just a part of the massive reorganization that occurred as the USAF re-focused its vision following the conclusion of the Cold War. The previously functionally aligned Air Force operational major command missions were blended into the two major themes based on the Air Force's vision of Global Reach and Global Power: AMC stood up as the Global Reach administrator, (keeping alignment as MAC had under USTRANSCOM) while ACC and the other theater commands focused on Global Power operations. The result was dividing theater airlift between AMC and the theater commands (McPeak, 1995:86-97), with the

subsequent complete divestiture of theater airlift from AMC in 1993 (Matthews & Leland, 1995:22).

Unfortunately, the division of the mobility systems created difficulties between strategic and theater airlift systems because of the minimal integration and coordination between those forces coupled with a poor remaining infrastructure for the management of the theater air mobility forces. Previously, theater airlift had been run by a MAC dedicated airlift division, headed by a general officer, with a robust supporting staff. This airlift division coordinated and commanded theater airlift operations that comprised an extensive theater network. The realignment of theater airlift forces occurred virtually simultaneously with the USAF force drawdowns from the overseas theaters. The result was the remaining airlift staff retained under the geographic CINC's control was a fraction of the former theater airlift staff and infrastructure (DIRMOBFOR, 1996).

The airlift system is complicated, and the division of that system realistically entails considerable coordination, and infrastructure throughout. This issue was highlighted by Lt Col Robert Owens in his Airpower Journal article on "The Airlift System, A Primer:"

The national military airlift system of the United States and its associated policy-making processes are enormously complex....most airlift policy makers understand they are dealing with a system of interconnected and interdependent parts. But the stakes and intensity of the policy process can obscure their systematic perspective and thereby allow decision makers to consider proposals that offer substantial advantages to one element of the airlift system, while simultaneously undermining its overall efficiency and effectiveness. (Owens, 1995:17)

Operation PROVIDE PROMISE

Operation PROVIDE PROMISE was the humanitarian relief operation that delivered aid to the residents of Sarajevo, Bosnia-Herzegovina via airland missions and besieged Muslim enclaves via formation airdrop missions. The effort was the longest running airlift in history, spanning from July 1992 until December 1995. The effort was supported by the USAF commands of USAFE, AMC and ACC, both active duty and ARC units. From July 1992 until October 1994, the airlift was conducted at the 435th Airlift Wing at Rhein-Main Air Base, Germany. From October 1994 until completing the mission in December 1995, the mission was conducted primarily by forces assigned to 86th Airlift Wing at Ramstein Air Base, Germany, at either Ramstein or the deployed location at Ancona, Italy. The mission was operationally controlled by USAFE, while AMC and ACC provided support forces. At Rhein-Main Air Base, there were both USAFE theater and AMC tenant forces. The AMC tenant group's mission at Rhein-Main was to handle the strategic flow of aircraft to transship material to the theater airlift forces. In addition to its primary mission, the AMC group provided unparalleled support to the theater fleet which was conducting the bulk of the PROVIDE PROMISE mission. The AMC tenant support was critical to executing the mission. The 1992 division of command of strategic and theater airlift forces had resulted in AMC gaining the bulk of the equipment and manning to load and unload aircraft at Rhein-Main. The tenant AMC support of Rhein-Main's PROVIDE PROMISE effort enabled mission success. The effect of that support was the entire base, whether part of the wing or tenant, was in concert with performing the mission. The mission benefited from this team effort.

Significant credit for this effort goes to the leadership at Rhein-Main who understood how to form a unified effort, despite not having formal tasking to control non-theater assigned AMC tenant forces.

Once the mission transferred to the 86th Airlift Wing at Ramstein, the element of a base level USAFE and AMC team effort for the operation suffered. Despite drawing back the scale of the operation compared to the surge tempo at Rhein-Main, very little support from the AMC tenant support group was available to support the theater airlift effort. The leadership change associated with the transfer failed to preserve the command arrangement that existed previously at Rhein-Main, reducing the cooperation between the two commands.

The lesson learned from this operation was that even at the wing level, command relationships must be focused on effective coordination between commands. Effective integration existed at Rhein-Main, but did not exist at Ramstein, even though both wings had essentially the same command structure. The coordinated effort and interface of a team that operated at the same location, while still belonging to separate commands provides a lesson on the value of integrating strategic and theater air mobility efforts.

Operation JOINT ENDEAVOR

As described in Chapter I, the deployment of US and NATO forces into Bosnia for the implementation of the Dayton Peace Accords revealed several challenges for integrating mobility efforts. The deployment was the first large scale operation that had C-17 participation, which helped to bring into focus that duplication of effort resulting from separate organizational structures for airlift. The Balkan airlift mission was a

classic case of the “air logistics” aspect of the dual nature of theater airlift as previously defined. The airlift used both AMC C-17s and USAFE C-130 aircraft in a pure “theater” role that remained predominantly under two separate chain of commands:

The theater AFCC--in this case USAFE--did not have the control, visibility over, or responsibility for those C-17s that flew a substantially larger share of the theater load than its own European based C-130s. The C-17s along with other AMC aircraft--C-141s and C-5s--flying traditional European theater missions to the Balkans in support of the theater commander, operated through a predominantly AMC/USTRANSCOM command, control and support system. Meanwhile, C-130s operated via separate USAFE channels. These two different networks of control and support only awkwardly communicated with each other and thereby lost synergy's [*sic*] of mutual support, effectiveness and efficiency. (Krisinger, 1996:17)

In this operation, AMC retained OPCON of the C-17 and supporting forces, although those forces were performing a purely theater role. The AME became a part of a combined (US and NATO forces) Regional Air Movement Control Center (RAMCC) which served under the guidance of the DIRMOBFOR who was a deployed AMC general officer. The AME exercised OPCON forward from the TACC under the guidance of the DIRMOBFOR for the AMC deployed forces supporting the geographic CINC. This arrangement allowed those forces to remain available to execute the national two MRC security strategy if needed (DIRMOBFOR, 1996). The analysis of this command and control arrangement is that the relationship between commands for control of forces can and will be manipulated to allow the commands to meet the needs of their individual missions and charters.

If the Balkan implementation scenario had turned into a combat insertion vice the air logistics effort that it was, several key differences may have resulted. First, a combat insertion of ground forces would have relied heavily on the combat attributes of a theater

air component controlled primarily C-130 operation that was integrated in a tactical theater air campaign plan. Second, the C-17 probably would not have been committed to a tactical insertion to the same level that C-130s at this early stage in that weapons system's operational use. In this case, the C-17 could have primarily served a non-hostile staging area, with the C-130 fleet performing primarily the tactical "last leg" into the conflict area. Thus, in this example, effective coordination and interface between the AOC, ALCC and AME staff elements would be crucial to the success of the operation.

Historical Lessons Learned

The Air Force has had difficulty in trying to establish "who" should be the controller of airlift forces and "how" should those forces should be managed. Many airlift advocates have argued that air mobility should be operated by a single command structure, on a global scale. Theater Air Force commanders have historically argued that they are the best ones to control airlift assets that operate within their area of responsibility. Aircraft weapon systems are a focal point of interest, but seamlessness occurs from proper operation of the aircraft within an integrated air mobility system:

This distinction between theater airlift and strategic airlift has little to do with the capability of the aircraft employed or differing requirements for command & control (C2) or aerial ports. C-130s can be and are employed "strategically" across theater boundaries--just as T-Tails are; C-5s, C-141s, and now C-17s are employed in the tactical role. Basic C2 and aerial port requirements are common to the strategic and tactical segments." (White Paper 1996:1)

It appears that the USAF keeps relearning some lessons of how to best organize and execute airlift. A common issue that appears throughout history is that airlift under a single system is more effective overall--seamlessness is easier to obtain because coordination between forces is reduced. Conversely, geographic CINC control of all the

forces that operate within the theater is a pillar of military belief. Thus, there are two reasons the USAF is relearning the lesson. First, ownership of theater airlift forces is a tough call to make. Both sides of the argument have compelling reasons why ownership of theater airlift is best vested under a particular command arrangement. Second, technology improves the capability of mobility systems constantly, outpacing the development of doctrine for command and control of forces.

The best illustration of this example is the C-17 aircraft and support system. The C-17 can easily fill both a theater and strategic role. The aircraft's ability to perform both the strategic and theater mission allows USTRANSCOM and AMC the ability to support the theater air movement to the degree that a few deployed C-17s can overwhelm the theater assigned airlift fleet in tonnage moved (DIRMOBFOR, 1996).

Separation of forces duplicates effort. A single coordinated effort concentrates forces for maximum effect. As mentioned previously, in an era when defense budgets continue to decline, the stand up of separate theater stovepipe structures that essentially mirror the global structure of AMC, is a dispersal of force that duplicates efforts. This is especially noteworthy when Air Force doctrine is applied: "Air Force units should be organized to best harness people, equipment and operational methods" (AFM 1-1, 1992:18). Further, "singleness of control" is fundamental: "Aerospace power is most effective when it is focused in purpose and not needlessly dispersed" (AFM 1-1, 1992:8).

Thus, organization of theater airlift is a challenge. Does singleness of control mean that the geographic CINC should command all forces in the theater, including

theater airlift? Or should USCINCTRANS command all the forces that comprise the airlift system, to best harness the essence of “singleness of control?”

The USAF needs to agree on a plan to organize and execute its airlift forces, and then stick with it. As the historical issues indicate, the organization and command of theater airlift forces has shifted back and forth between theater command and a functional central command. The Air Force as a whole should decide how to overcome the differences between commands and structure an airlift system that uses the assets as a unified team. Each operational command within the Air Force is responsible for some aspect of national security strategy. The relationship over command of airlift forces needs to be aware of those aspects to best posture how airlift forces will operate to serve its common-user customers.

IV. Core and Contributing Issues to Air Mobility System Difficulties

The following are the core and contributing reasons to the problems being experienced in the today's air mobility system.

Core Reasons for Today's Difficulties

The following issues are the reasons the multiple command air mobility system has problems.

The division of control authority between the strategic (AMC) and theater commands occurred without developing a sufficient interface or coordination relationship. There are problems with command, control, and communications between the strategic and theater mobility systems. Currently, the command and coordination staffs are not structured to work well with each other. The bulk of the problem exists because of the extensive coordination network required in the air mobility command and control structure. A number of different staffs (all with a different focus) influence decisions regarding airlift. Because there are so many different agencies that are involved in the current process (especially for a contingency) there needs to be a nearly constant coordination effort to keep integration from being disconnected. Reducing the amount of the separate staff structures, standardizing their efforts and equipment, while clearly establishing the tasking authority will help solve this problem.

Illustration #1: Airlift requests using deployed AMC assets from the theater assigned DIRMOBFORs and the ALCC staff at the Operation PROVIDE PROMISE Combined Air Operations Center (CAOC), Vicenza, Italy, required constant

detailed phone conversations with operations planning staffs at the TACC in order to schedule those assets for the next day's air mobility effort. Because there was no TACC forward agent (such as the AME) deployed at the time, to exercise OPCON forward from the TACC, OPCON was not readily achieved. Command and control was made more difficult because the DIRMOBFOR and the ALCC were theater assigned with no formal ties to the TACC. TACC retained decision making authority for AMC deployed assets that were operating and supporting a theater controlled airlift effort. Thus, the ability for the theater ALCC to integrate the deployed assets with theater airlift forces was very difficult to achieve. This created inefficiency and wasted man-hours for both the strategic and theater air mobility systems (37 AS, 1995).

Illustration #2: A theater airlift crew had completed its mission at Aviano Air Base, Italy, and was returning to home station when approached by a transient AMC aerial port senior NCO. The NCO had several pallets of mission critical cargo to go from Aviano to Incirlik Air Base, Turkey, supporting Operation PROVIDE COMFORT. The reason the aerial port NCO had need of the theater aircrew and aircraft was because the assigned AMC asset had gone non-mission capable and there were no backup AMC assets available to perform the mission. The aircrew had sufficient duty day to complete the mission, if the request could quickly go through the coordination channels up from the AMC transient facility to the TACC and over to the theater airlift operations staff to task the aircrew to perform the mission. Unfortunately, the required coordination took far longer than the aircrew had available in duty day, and the cargo

movement had to wait for the next duty day. By that time an AMC asset was available to accomplish the lift (37 AS, 1995).

Illustration #3: A Joint Universal Lesson Learned (JULL) on the deployment for Operation JOINT ENDEAVOR:

The Air Mobility Element (AME) concept needs a lot of work to re-inventing the old airlift division's function. The Joint Operation Planning and Execution System (JOPES) is currently incapable of providing the required visibility to the decision maker. Work arounds consisted of telephone calls and best guess data. There is no recovery from the value added and synergy lost with the ripping apart of what was a seamless airlift system. (Verling, 1996:1)

Illustration #4: The recall of the US airdrop forces enroute to Haiti, that were going to initiate the invasion of that country in December 1994, met several key difficulties. The operation was being conducted within USACOM's AOR. Therefore, any recall should have gone through USCINCCOM. However there was considerable "confusion surrounding the recall of the C-130 employment missions on the way to Haiti, which was done by USTRANSCOM and AMC vice Atlantic Command (ACOM) /ACC" (Verling, 1996:1).

Possible solutions: Standardizing the staffs that perform airlift command, control, coordination, and tasking between commands will aid the interface between the commands that operate mobility forces. For example, TACC is AMC's "one stop shop" for command and control of the strategic air mobility forces. Currently, the theater airlift forces are not under such a standardized command institution. However, a USAFE

initiative to create a theater airlift command, control and coordination center will help that command achieve better control over its air mobility operations. Additionally, this centralized control facility will aid the interface by providing a similar activity to AMC's TACC (ACC/DOOM, 1996). Using the concept of the contingency theater ALCC as a permanent theater airlift planning staff is a way of consolidating fractured planning effort.

Part of the answer may be provided by the Combat Air Force's (CAF) belief that coordination of airlift for the theater (especially contingencies) should be done under the same organizational structure as the coordination for other missions that operate in the theater, which is the AOC. This would include both the ALCC and AME staffs (ACC/DOOM, 1996). Another part of the answer lies in the analyzing the role and relationship regarding the DIRMOBFOR, which will be discussed later in this paper.

Overlap and duplication of effort. Coordination of efforts, and use of people and equipment need to be improved. General McPeak, pursued a "one wing, one boss" approach to wing organizations (Matthews & Leland, 1995:40). At overseas installations, this concept is at odds with the AMC en route facilities, which are tenant units to provide trained people, aerial ports, maintenance capability, command and control, supply and support equipment infrastructure to support transient strategic mobility assets (Col Williamson & Multi Command Team, 1993:2.1).

The air mobility "hubs" for the forward theaters, (Yokota Air Base, Japan, Elmendorf AFB Alaska, and Ramstein Air Base, Germany for the Pacific and European theaters respectively) plus the remaining AMC en route structure (to and in the theaters--

the transient installations at places like Lajes, Azores and Sigonella, Sicily) currently are key points for transitioning between strategic and theater missions. The activities at these locations are the focal point of where the seam in air mobility is realized. The “handover” of the cargo and mission occurs at these locations.

Effectiveness of “one wing and one boss” purportedly results from the belief that everyone works on the base for the wing commander, harnessing the synergistic effect of the entire wing towards accomplishing the wing’s mission (McPeak, 1995:54). At the forward installations where strategic and theater missions interface, the seam of air mobility widens because of politically based distinctions between missions and roles of the “two types of mobility.” If either the strategic or theater force residing at the airlift hub experiences a surge in operations, it is a military tradition that “all pitch in and help.” This tradition is easier to “enforce” when all people working at that installation serve the same boss.

However, there are currently conflicting goals between the strategic tenant organization and the theater air mobility organization residing at the theater APODs. The division of the airlift system has fueled the need for theaters to develop their own mobility structures. It is difficult for MAJCOMs to share their equipment and personnel. AMC or USAFE would not prefer to lend the other the use of a forklift, for example, for the following reasons. First, they probably need to use it themselves. Second, liability issues occur if “the other command breaks it”--how to get the funding to replace it? In any case, the division of the mobility system has caused all the commands that operate

mobility forces to spend money to obtain people and equipment to support their mobility systems. This effort is a tough thing to accomplish in today's budget climate.

Theater commands and AMC have different funding emphasis for manpower and equipment, leading to different capabilities of handling mobility aircraft and equipment. Both the theater and AMC are represented at these hubs because these locations serve as primary transshipment points between strategic and theater mobility systems. The installation commander falls under the command of the geographic CINC. AMC forces are represented as tenant units at these locations. The result is "one side of the house" (either AMC or the theater force) at a theater mobility hub may be able to handle surges in the mission better than the other, calling on operators on both sides to force work-around policies to try and get the mission accomplished. This is often done with conflict from separate chains of commands who want their respective force to concentrate on unit core competency (Cwicklick, 1996).

Illustration #1: The 623rd AMSS at Ramstein Air Base, Germany, is manned and equipped to support cargo operations for transient AMC missions. The 86th Airlift Wing is manned to handle only theater airlift missions, and the manning for theater aerial port personnel is extremely limited (Laub, 1995). Operational tempo at this hub for both theater and transient support has remained very high since the stand-up of the 86th Airlift Wing. Prior to the transfer of the airlift wing from the 435th Airlift Wing at Rhein-Main Air Base, Germany to the 86th Airlift Wing at Ramstein, the AMC aerial port at Rhein-Main had provided theater airlift support to load and unload the aircraft,

prior to aircrew arrival at the aircraft, such that minimal delays occurred to mission departure.

The manning for the 623rd at Ramstein, however, did not allow that vital transshipment focus of AMC support to continue. This failure contributed to mission departure reliability problems for theater airlift missions, affecting mobility customer support (Laub, 1995).

Illustration #2: Another Operation JOINT ENDEAVOR “Lesson Learned:”

The pre-planning for base operating support (BOS) of JOINT ENDEAVOR (JE) was completely disregarded because of the command seams within the Air Force. Initial planning by personnel with airlift and aerial port debarkation (APOD) operations were disregarded by USAFE and EUCOM because of command lines. The JE plan only included BOS requirements that satisfied C-130 operations. Thus, many strategic air requirements were late to need or completely eliminated. (Bird, 1996:1)

The current policy of separating the air mobility system into strategic and theater systems, as discussed previously, causes duplication of effort and overlap of resources. Common sense suggests that this duplication drives up costs. Additionally, “at the seams” of the two systems are the current theater airlift hubs at Yokota, Elmendorf and Ramstein. Personnel and materiel “set aside” for one mission (the strategic or the theater) are often not planned or engaged fully to help the “other side of the house” perform their mission. Therefore, each “side of the house” at these airlift hubs may have personnel and equipment at a less than a fully engaged level, while the other side is operating at maximum capacity. Further costs of operating multiple air mobility systems come from

additional systems required for current operations planning, scheduling and command and control.

Differences in the amount and quality of the support assets that support the different mobility systems and commands. There is difficulty in coordinating the movement of people and equipment from the APOE through the APOD to the final destination. There is a lack of infrastructure in the theaters to complement the transshipment effort from the strategic mobility system. This contributes to breakdowns in planning and executing airlift operations and In-Transit Visibility (ITV) (Cwicklick, 1996).

A significant portion of this problem is due to the fact that air mobility capability is not equitably apportioned to the theater commands. Funding between the commands that operate mobility forces is focused in different directions. Theater airlift forces have developed a much larger combat focus than the strategic air mobility forces, primarily because of the difference in the command's mission. This has resulted in the purchase of defensive hardware to enhance the survivability of those forces in the hostile arena (ACC/DOOM, 1996). But what is lacking in the theater airlift system is the amount and quality of support infrastructure. Funding to enhance those aspects needs to be planned for the future. If the theater airlift forces had access to greater amounts of the assets it takes to perform a mobility operation, they would be able to better support their airlift efforts. If the theaters funded efforts for improved military handling equipment and

personnel to support mobility operations, a better handoff of equipment and forces at the APOD transshipment point could be realized.

AMC has a more robust capability to support air mobility operations. The theater commands do not have anywhere near the numbers or percentages of specialized mobility support personnel, cargo handling equipment, communication gear or mobility information systems that AMC currently possesses. Thus, one of two things need to happen, either provide the theaters more of the equipment to allow the theater airlift system to better support its mobility effort, or have AMC provide greater support to theater air mobility operations. Specifically, this means to have AMC provide greater support to theater airlift efforts at the theater airlift hubs, and deploy TALCEs to support primarily “theater only” airlift needed operations, because the theaters have limited capability. Without such support, the USAF needs to field equipment to allow theater airlift forces perform better at the hub and be able to deploy mobility support within their theater.

In a wartime contingency, the effective coordination and control of air mobility support assets is vital. Those support assets such as Tanker Airlift Control Elements (TALCEs) are critical elements to form the nodes of the air mobility network. At present, AMC owns and operates 12 active TALCE units, and ACC owns and operates 2. A significant amount of mobility support is resident in ARC associated C-130 units that are owned by ACC. In any large contingency, USTRANSCOM would be challenged to provide a laydown web of nodes without access to those ARC gained support units and

personnel (such a laydown web is a key responsibility of forces assigned to USTRANSCOM) (DIRMOBFOR, 1996).

Problems with achieving asset and cargo visibility. Effectively integrated air mobility operations hinge on the ability for both strategic and theater mobility forces to coordinate and communicate both asset and cargo visibility.

Illustration #1: AMC's 623rd AMSS at Ramstein, is manned to support AMC traffic, while the USAFE assets of the 86th AW handles C-130 operations. Cargo and other assets can and do get "lost" in the transfer between the two separate functional mobility units. Total Asset Visibility (TAV) should include visibility over airlift system components themselves--airframes, maintenance equipment, and materiel handling equipment (ITV is a subset of TAV). The transfer of visibility of movement is a key issue of traversing between theater and strategic mobility systems (Cwicklick, 1996).

Illustration #2: During Operation JOINT ENDEAVOR, USTRANSCOM and others were unable to satisfactorily monitor unit closures into theater from CONUS in Joint Operation Planning and Execution System (JOPES) or Global Transportation Network (GTN) (both systems are key tracking systems for ITV of cargo movement). This loss of ITV occurred because the tracking numbers were only assigned for the strategic movement, not from origin to final destination. GTN and JOPES did not consider, nor was programmed, transshipment at the theater mobility hub to a theater airlift aircraft. This unfortunately caused a total loss of ITV (Breeding, 1996:1).

Illustration #3: ITV highlights the need to better integrate airlift

operations:

We [TRANSCOM/AMC] have decent intransit visibility (ITV) on intertheater airlift missions. However, once the cargo is delivered to a theater staging location, we lose sight of it. The problem is that once the original mission closes and the cargo is downloaded, we lose ITV [part of the reason is because of current difficulties in the subsystem equipment of the GTN network which drops or disconnects some or all of the information and the other part is operator induced errors]. The only way to try and regain ITV, is by manual phone calls to the DIRMObFOR and his staff to track cargo--a consuming waste of time and resources. (Billings, 1996:JEN-12)

Competing interests for mobility support and not enough assets to meet the requests. Problems arise in the mobility process because there are competing interests for mobility support and there are not enough assets to meet these requests. This shortfall is best answered by optimizing the entire mobility system. Under the current system, this is most logically achieved by bringing planning and controlling personnel of the separate systems together, to work alongside each other for effectively using limited air mobility resources. In contingencies, this means either combining the elements of the AME and ALCC, or at least ensuring collocation of those staffs. In peacetime, a forward element of the TACC, resembling an AME, that works with a peacetime theater ALCC, can standardize and integrate strategic to theater planning and controlling processes.

Illustration #1: Air mobility support of Operation CARIBBEAN EXPRESS, the humanitarian relief effort in the Caribbean, was conducted by an AMC

assigned DIRMOBFOR and AME who operated for the DIRMOBFOR. The ACC theater airlift forces were integrated with the DIRMOBFOR and AME:

An AME with a command and control (C2), Global Decision Support System, messaging capability, stage management and logistics resupply center was established...What made this AME work effectively was its ability to integrate with the ACC C-130 package in minimal time to create a true theater command and control arrangement. There was no dual command structure, although the C-130s were deployed as a self sufficient package...Assigning a C-130 liaison and crew control slice from ACC assets, with their intratheater expertise, to the AME should be adopted as a standard procedure, allowing total integration between AMC and ACC packages. (Lorenz, 1995:3)

This illustration shows the benefit of combining airlift planning and control efforts as a single team.

OPCON versus TACON of both strategic and theater mobility forces is a challenge. USTRANSCOM and AMC state that their operational and support mobility forces need to be maintained under OPCON of their structures, due to the flexibility required to execute the two MRC strategy (DIRMOBFOR, 1996). Strategic airlift forces have historically been willing to allow TACON to theater command for use of deployed strategic airlift forces. The warfighter can still use USTRANSCOM's strategic assets deployed to the theater under TACON role.

There is a lack of synergy between the commands that operate mobility forces. Difficulties between the MAJCOMs that operate mobility forces in coordinating and executing mobility operations is a problem. There is a reluctance of the theater commands to ask for outside assistance for mobility support by AMC, because of a desire to perform the operation "in-house."

Illustration #1: Joint Universal Lesson Learned regarding integration of theater and airlift planning for Operation JOINT ENDEAVOR:

There was a great deal of planning prior to Joint Endeavor. This planning focused on maximizing throughput at various places throughout the Area of Responsibility (AOR). Naturally, this is the right approach and is what should have been done. However, concept of operations (CONOPS)/plans submitted by Air Mobility Command (AMC) only considered using T-Tails [C-17/C-5/C-141s] while completely overlooking two squadrons of C-130s either in or to be deployed in support of Joint Endeavor. Conversely, USAFE developed airlift plans almost exclusively based on C-130 aircraft with little to no use of T-Tails. Both AMC and USAFE had reasons (at the Action Officer (AO) level) for the gap in the seamless airlift system. AMC continually claimed that they don't do C-130s and that C-130s are the responsibility of the theater. USAFE planned on using C-130s because they did not know that T-Tails would be available and when it was apparent that T-Tails would be available, USAFE would not change their plans. Obviously, parallel planning using two separate philosophies occurred and these plans did not optimize the airlift system placing the correct aircraft against a requirement. (Dietrich, 1996:1)

Contributing Reasons

The following issues contribute to the difficulties that are currently being experienced by today's air mobility system.

Air mobility "expertise" is not equally shared by the commands who operate mobility. AMC is the resident command for mobility expertise. The other commands that operate mobility forces do not have nearly as many personnel in mobility positions that possess the depth and breadth of mobility expertise as their AMC counterparts. Expert knowledge of the mobility system is a competency that is not easily learned.

The theater commands that operate mobility forces need to incorporate more mobility expertise in order to improve command to command interface for the mobility

process. This will improve things like the scheduling of cargo handlers, equipment, and aircraft to improve tracking and efficiency of the transfer of cargo and In-Transit Visibility (ITV) of moving cargo. The geographic CINC's have talented theater airlift people under their command, however the number of these folks are very few. When a large contingency operation occurs, the theaters virtually require AMC support in order to assist the planning, staffing and execution of the effort.

The tug of war between commands over control of theater airlift assets. A primary reason for this conflict is because of the dual nature of theater airlift as previously discussed. USTRANSCOM is focused in orchestrating a global logistics system, that has air mobility as a key pillar, while air logistics is just one part of the geographic CINC's focus. This difference in focus can and does lead to competing interests and conflicting goals among the separate commands that own and operate mobility assets. Theater airlift can and does participate in a theater campaign plan. It is also often the "last leg" of the mobility "fort to foxhole" system. Also the "operational and technological overlap" (between strategic and theater air mobility forces) have complicated many past efforts to establish distinct organizational boundaries between airlift forces" (Joint Pub 3-17:1995:I-2). The C-17 causes those same difficulties today.

CONUS based theater airlift: Should COCOM belong to USTRANSCOM or USACOM? This issue exists because of the necessary coordination between the two CONUS based air mobility forces (USTRANSCOM/AMC and USACOM/ACC) that are “lift augmentors” to the other geographic CINCs for both routine and crisis/contingency mobility support. Currently, AMC’s TACC, by arrangement provides command and control for both AMC and ACC operational airlift missions:

TACC provides planning, tasking, and command & control of both ACC’s C-130 and the ACC TALCEs, both active duty and ARC. A tenuous and convoluted interface is established whereby the TACC, with ACC’s concurrence, tasks, flight follows, and controls these assets for ACC by virtue of Inter-Command Agreements to avoid building redundancy. (Bruno, 1996:4)

In time of war, the combatant command of all strategic mobility forces falls under USTRANSCOM, as defined by the “Forces For Combatant Command,” or “Forces For” document. In addition to those forces, USTRANSCOM, also exercises COCOM of up to 50 CONUS based ACC operated C-130s (the remaining ACC owned C-130s fall under the combatant command of USACOM, where, unless USACOM was the supported CINC in a contingency operation, those forces would transfer OPCON to another geographic CINC) (Cole & Others, 1993).

A primary reason why the CONUS based C-130s were transferred from AMC to ACC in 1993 was because USCINCTRANS, General Fogleman, believed that the newly redefined USACOM, as an intended bonafide combatant commander, needed to have control of theater airlift forces. Based on previous discussion, if it makes sense that other geographic CINCs have control of theater airlift residing within their theater, so too

should USACOM. Additionally, this would allow USTRANSCOM's air component, AMC, to focus on its "core competency" of strategic air mobility (Mathews & Leland, 1995:22-23).

A problem however, is that USACOM's combat AOR is not clear cut. Part of its AOR is the CONUS itself, which is challenged by the notion that the US does not want to address its own soil as a potential combat zone. Furthermore, parts of its non-CONUS geographic AOR were recently aligned under USSOUTHCOM. Lastly, USACOM has shifted its focus more towards becoming the unified commander of joint exercises (Murin, 1996).

Additionally, within the same "theater" as USACOM resides USTRANSCOM, which has a tremendous advantage of mobility expertise and infrastructure over USACOM. A way to improve mobility efforts is to assign not just up to 50, but all ACC gained C-130 aircraft and support structure (ACC owned Airlift Control Elements and equipment) to the COCOM of USTRANSCOM.

If USTRANSCOM had both the air mobility assets and infrastructure of both AMC and ACC, they could be the "single manager" and provider of a CONUS based "air mobility/lift augmentation force" for all the geographic CINCs. However, as discussed in Chapter II of this project, current joint doctrine specifies that combatant command of theater airlift does not fall under USTRANSCOM. Although doctrine is very important to structure the way DoD plans and organizes, it is flexible and can be changed.

Confused Customers. The customers are confused concerning who does what for whom. Below the senior leadership level, the multiple agencies that participate in providing airlift, both strategic and theater, causes confusion to the customers supporting the CINC's requirements.

Illustration: During Operation QUICK LIFT (a European theater operation) the concept of the DIRMBOFOR and the AME caused confusion among AMCs customers.

No one except the senior leadership at the Unified Commands appears to understand how USTRANSCOM and AMC interface with their customers. This confusion sometimes initially surfaced as resentment at the division chief and action officer level. Initially some members of the staff opposed having an AME in theater. (Coolidge, 1996:1)

To reduce the confusion to customers is to have a single contact in the theater to get airlift support. All customers put requests through that agency. That agency is the JMC. CONUS "theater" requests and the JMC lift augmentation should be just a single point of contact as well. That agency should be USTRANSCOM's MCC.

In a contingency, the JMC may not fall under control of the JFC (if the JFC is not the geographic CINC). Thus, a single point of contact is still needed to be responsive to the JFC and JFACC for immediate airlift requests. In this case, contingency customers, should still have, a single POC for airlift requests. The ALCC (or CALCC as will be described) should be that organization.

Comparing Airlift Problems with Air Refueling

The bulk of the air refueling fleet is resident under the COCOM of USTRANSCOM, with OPCON exercised by AMC. Global Reach and air mobility refer to the missions of airlift and air refueling.

The shortage of airlift to satisfy airlift requests is not equally experienced within the air refueling community. USAF KC-135 air refueling assets were sized for the nuclear Single Integrated Operational Plan (which dedicates tanker assets for bomber strike operations). In the event the SIOP was executed, US Strategic Command (USSTRATCOM) would gain access to AMC tankers to perform this operation. Under the two MRC scenario, (which is the element of national security strategy that USTRANSCOM is focused on) there are marginally sufficient forces to meet both the deploying global refueling requirement and enough air refueling assets to transfer OPCON to a theater to augment theater tanker refueling commitments. As such, there are sufficient tanker assets to avoid a conflict of control between USAF MAJCOMs (Moncrief, 1996).

Because the air refueling fleet is sized to a different strategy than the airlift fleet, there is currently no tug of war over use of tankers and their support assets. Also, in the theater campaign, tankers directly support the air refuelable airborne assets. This role is closely intertwined with the theater air campaign. USTRANSCOM and AMC can grant limited OPCON of tankers to theater commands for contingencies, and still meet the needs of its focal strategy, the two MRC strategy. The sizing of the airlift fleet does not

afford that same opportunity, thus granting OPCON of AMC more than a limited number of strategic airlift forces to a theater command to accomplish a single command and controlled contingency operation by theater commanders is a questionable strategy.

In any MRC, the call for airlift resources will exceed the capacity to provide. The only decision will not be who should exercise airlift OPCON, but rather which CINC will be supported with the limited resources. Under the two MRC scenario as discussed, KC-135 tankers are deployed to the CAF for integration with tactical “theater” forces, while the rest of the tankers remain for strategic employment (such as providing an “air bridge”) for air refuelable strategic mobility forces.

V. Options to Improve the Air Mobility System

The previous chapter highlighted key issues that affect the current air mobility process. This chapter proposes different organizational methods of managing the ownership, command and control of theater airlift and its coordinating relationship with the strategic airlift structure.

First, What Does the Customer Want?

The customer, the warfighting CINC, wants to control theater airlift supporting the theater, in both peace and war. The warfighters also want strategic and theater air mobility augmentation of theater efforts for contingency operations to be easily integrated within the theater campaign plan. The Goldwater-Nichols Act supports the geographic CINC as the controlling interest of managing forces that reside within the CINC's theater. The customer should get what he or she wants.

Improving the performance of the air mobility system hinges on either re-establishing functional control of the entire air mobility process or achieving a better level of coordination between the organizations that own and operate mobility forces. The former conflicts with the Goldwater-Nichols Act.

Ways to improve the air mobility system include options to re-engineer air mobility command and structure of assets, and/or options that would leave the current system "in place" but replace or restructure a key element or relationship that would improve the interface between air mobility systems. The proposals should include both

the peacetime and contingency structure. Peacetime processes should reflect as closely as possible the structure and processes used for contingency.

Improvements without Changing Force Structure

This section's focus is to discuss proposals that improve the integration between the current systems, for both contingency operations and peacetime, without permanently changing command of forces. "Without," in this case, means that some semblance of a divided strategic and theater airlift system remains.

Contingency operation improvements: structuring a simpler organization to command and support air mobility participation in a contingency operation. It has been discussed that airlift operations that exercised clear lines of command authority, such as the Berlin Airlift, and Operation DESERT SHIELD/STORM were successful at least in part because of the command authority. Operation JOINT ENDEAVOR's difficulty in command authority relationship had an impact on the efficiency of the operation.

Because the geographic CINCs are in charge of what occurs within their theaters, they retain responsibility for the conduct of theater operations. Joint doctrine clearly states supported versus supporting roles and relations for CINCs. However, the geographic CINC's appointment of commanders to conduct operations has opportunity for some flexibility.

For example, the appointment of a JFACC as stated earlier is made from the service which supplies the preponderance of forces and is most logically suited to

command the joint air forces. If a similar kind of logic were applied to the appointment of a commander and organization of a contingency airlift who could combine mobility forces from multiple commands, and be afforded the operational or tactical control to perform the air mobility operation, better integration of air mobility operations for contingency operations may be easier to achieve. Three elements for accomplishing this effort are: 1.) flexibility in structuring the relationship and roles performed by the agencies who command and organize air mobility for a contingency operation; 2.) combining the staffs that accomplish airlift planning for contingency planning; and 3.) redefining the role of the DIRMOBFOR.

Flexibility in structuring relationships and roles of the agencies who command and organize air mobility for a contingency operation. Adjusting doctrinal relationships for command and control of airlift forces during contingency operations has allowed enough latitude with the airlift control authorities and agencies to cobble together a working solution of “who does what for whom” between the strategic and theater airlift forces to get the job done. This proposal is nothing more than an acknowledgment that applying the same structure of command for every contingency operation in a “concrete” manner defeats the principle of flexibility. There should be a ready “blueprint” plan of the contingency air mobility structure, but there always needs to be flexibility to adapt the structure and command relationship that best meets the needs of the mission.

Combine the staffs that accomplish airlift planning for contingency operations: the CALCC. Integrate both of the elements of contingency airlift planning,

the ALCC and the AME in one planning cell, a combined ALCC (or CALCC). OPCON from the JFACC for control of theater airlift and eliminate the “exercise OPCON through” relationship from the TACC for the AME. Instead, the CALCC could exercise TACON of AMC deployed forces. If specific AMC (air and support) forces were needed to remain in the theater for the duration of the fight, then an OPCON transfer of those participating forces is warranted. The contingency air refueling mission coordination would stay under the control of the AOC because of the necessary integration required to deployed tankers with other theater air forces. Coordination authority would be established between the two organizations (the AOC and CALCC) to allow for the elements that are critical to all air operating assets within the contingency AOR to be communicated from the AOC to the CALCC. Additionally, it would be inherently important that the AOC and the CALCC be collocated.

Benefits: Currently, the AOC is the JFACC’s “one stop shop” for staff planning for the theater air campaign. The theater controlled ALCC is embedded within that organization. As discussed, the CAF advocates that all planning should be accomplished under the structure of the AOC. The AOC is under the leadership of the AOC director, who most often does not possess an expert knowledge of the air mobility system. The DIRMOBFOR (or as will be discussed, the COMMOBFOR) does possess such knowledge, and is arguably the best qualified to lead a contingency airlift planning staff. The AME itself is currently AMC’s contingency organization that “exercises OPCON through” from the TACC to deployed AMC air mobility forces (per current

doctrine). The AME, in this command relationship, allows AMC to deploy forces in support of a theater operation and yet allows those forces to remain "immediately flexible" to respond to USTRANSCOM's participation in the two MRC strategy. This relationship is normally more satisfactory than transfer of OPCON to theater command. However, by placing the CALCC under the theater's OPCON, the JFACC has the unbroken chain of command to control the airlift forces that remain in the theater supporting the campaign effort. Thus the CALCC achieves the following by incorporating OPCON for theater forces and TACON for strategic forces: sufficient control over the mobility process to meet the air mobility needs of the theater's requirements. This allows an acceptable manner to deploy USTRANSCOM assets to support the theater, yet maintains the two MRC security strategy posture. AME personnel and equipment would be OPCON to a warfighting CINC's effort. However, it is necessary to combine ALCC and AME elements to eliminate the separate efforts for contingency response.

The AOC, is not focused on the primary mission of airlift forces, which is primarily air logistics. However, the AOC does provide vital coordination that impacts all air assets. The ALCC is focused on theater airlift, and the AME on strategic airlift. Combining the efforts of the ALCC and the AME would improve the interface between strategic and theater air mobility systems. Establishing a CALCC that has both the theater airlift and the strategic air mobility elements would capture an integrated strategic and theater airlift planning and control effort. Establishing a coordination

authority/relationship between a CALCC and the AOC would capture the essential elements that need to be incorporated to forces operating within the theater which is necessary for the air operating force mission.

Currently, the ALCCs are limited to using the equipment that resides within the AOC to construct theater airlift planning (Moncrief, 1996). The post Cold War era has kept air mobility forces exceptionally busy through contingency operations.

Humanitarian airlift operations (such as Rwanda, and various hurricane reliefs) have often operated an ALCC and AME without an AOC (DIRMOBFOR, 1996). As a result, a stand alone CALCC is a vital issue to insure the organization has the manning and equipment to facilitate an integrated strategic and theater planning and control cell, without the benefit of using AOC equipment.

Placing a CALCC under a redefined DIRMOBFOR, with OPCON for theater forces and TACON for strategic forces, would give the JFACC (and higher) a “single belly button” access to air mobility efforts. This proposal also refines the role of the AOC, freeing that organization to focus more on its core competencies, which is not air logistics.

Drawbacks: The AOC is intended by the CAF as the single planning cell for theater air activity. Removing a portion of that planning effort would require planning teams on both sides to use coordinating authority to ensure that essential communication was achieved. This drawback should be surmountable based on the fact that, although the AOC currently controls the ALCC, the ALCC and AOC interaction is

focused on air space deconfliction and coordination with the ATO. Currently the AOC as an organization has many elements, one of which is the ALCC. The important aspect is that all air planning efforts remain under the oversight command of the JFACC, thus providing the CINC a single overall air boss. The CALCC as proposed would have greatest effect if placed under the control of a COMMOBFOR relationship to be discussed.

Redefining the role of the DIRMOBFOR: the pivotal position for command relationships between mobility systems. One element of creating a simpler organization would relate to refining the role the DIRMOBFOR performs in supporting air mobility participation within contingency operations. As described, the DIRMOBFOR is the senior agent who is the coordinating authority between the theater and strategic mobility systems for airlift issues. The DIRMOBFOR was preceded by the Commander of Mobility Forces (COMMOBFOR) and, prior to that, the COMALF. The COMMOBFOR served both the theater and strategic systems, and had a reporting chain to both the theater JFACC/AFCC and the equivalent strategic mobility agent (which today would be the TACC commander). In peacetime, the theater COMALF was owned and operated by MAC. As such, the theater airlift customers coordinated requests through the resident air mobility contact, the MAC assigned COMALF and the subordinate ALD. The COMALF and ALD integrated the most efficient tailored support to the theater air mobility customer, by having ready access to both strategic and theater aircraft systems. In a contingency, the COMALF and the ALD were placed under the

OPCON of the theater CINC to provide command authority of theater forces to the warfighter, while still remaining "plugged in" to exercise TACON of supporting strategic air mobility forces.

Former CINCMAC, General H.T. Johnson, described how the COMMOBFOR performed essentially the same function in an contingency operation as the airlift division commander once did in peacetime. "That was the dual hatted division commander relationship, where the airlift division commander not only worked for MAC, but also the overseas commander. We had a seamless situation because he handled the C-130 airlift for the theater commander, and he also integrated the strategic airlift" (Matthews & Smith, 1992:59). The following details a significant proposal in its own right to address improving air mobility operations: change the DIRMOBFOR to a COMMOBFOR.

Change the DIRMOBFOR to a COMMOBFOR: OPCON requires a single unbroken chain of command. Consequently, changing the DIRMOBFOR to a COMMOBFOR requires that the COMMOBFORs be subordinated to one superior chain, which should be up through to the geographic CINC. Thus the proposal is to change the doctrinal definition of the DIRMOBFOR to a COMMOBFOR with a reporting chain through the geographic CINC to exercise TACON from the AMC TACC through to deployed AMC forces and direct OPCON from the JFACC. As it is currently defined, the coordinating authority of the DIRMOBFOR provides only coordinating authority to assist theater airlift. So in effect, the DIRMOBFOR is responsible for the airlift, without being given any command ability to execute the airlift. Under the previous system, the

COMMOBFOR exercised OPCON of theater forces and TACON of the strategic mobility forces. The COMMOBFOR controlled the theater air mobility forces and coordinated the strategic mobility forces that operated into and out of the theater (DIRMOBFOR, 1996).

The following diagram illustrates the proposed relationship for air mobility operations in contingencies using the COMMOBFOR:

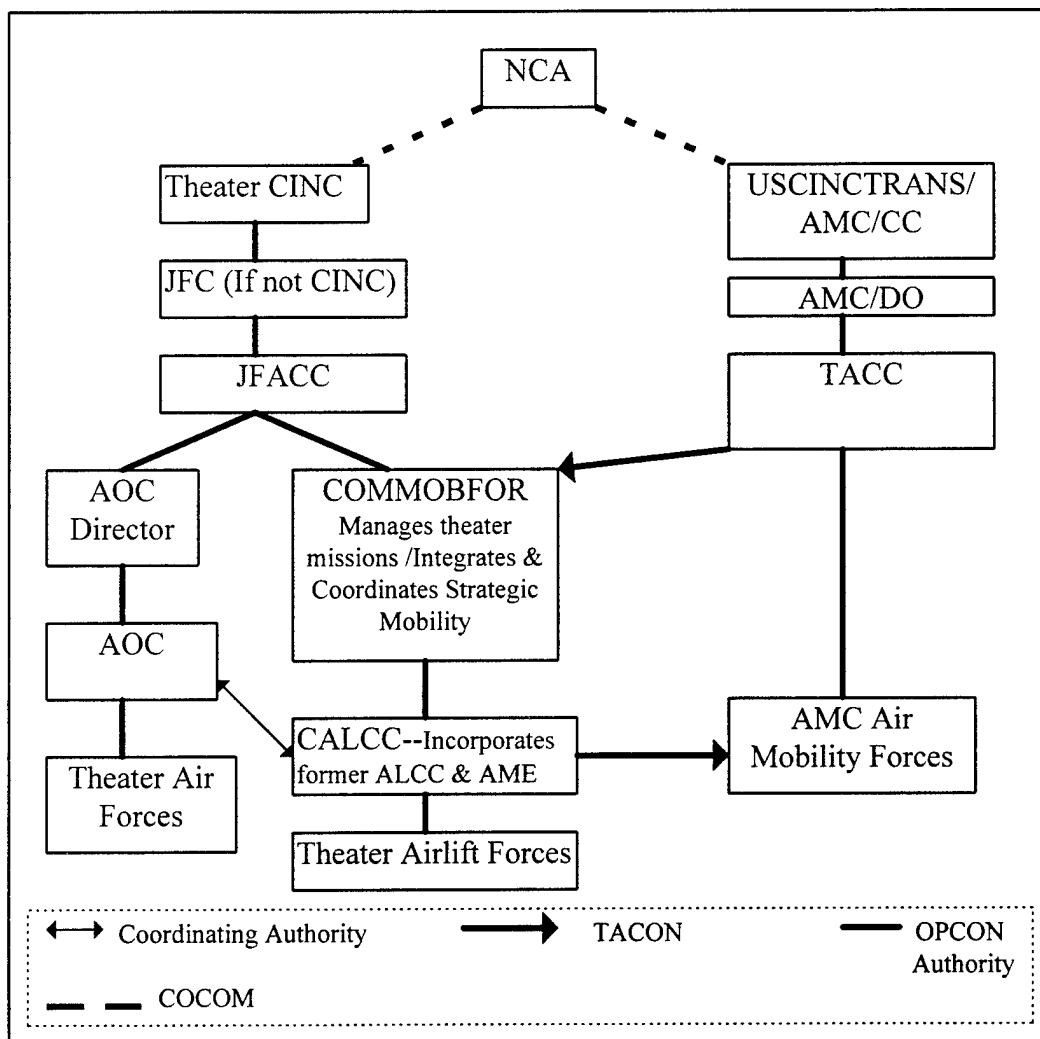


Figure 6: Proposed Doctrine for Contingency Airlift Command and Control

Benefits: The tasking and supporting commands maintain control of their assets because the COMMOBFOR has OPCON or TACON of the respective theater and strategic air mobility forces. There is definite single controlling authority in the theater for air mobility operations. The warfighters have unquestioned control of theater airlift, and appropriate subordinate command from the JFACC to the COMMOBFOR to theater airlift forces is established.

Drawbacks: The COMMOBFOR places another staff commander between the JFACC and actual forces, which was a previous reason why the COMMOBFOR was replaced by a DIRMOBFOR who did not exercise command authority. The reason the DIRMOBFOR was created was to streamline the layering of subordinate commands. Removing layers is a worthwhile endeavor, however, commanders need to have a reasonable scope of command. If accountable command cannot be afforded based on too broad a scope, subordinate command needs to be established to delegate the authority to keep the effort organized and efficient.

Peacetime operation improvements: structuring more effective organizational relationships to integrate better between strategic and theater air mobility systems. The following five proposals are intended to improve the normal day-to-day operation between the strategic and theater air mobility systems, while better posturing commands who operate air mobility forces to respond to contingency operations. The proposals include: 1.) redefining the role of the theater assigned AMC Air Mobility Support Groups, 2.) consolidating the theater airlift planning and control

effort, 3.) providing greater AMC support at the forward theater air mobility hubs, 4.) providing more realistic mobility exercises, and 5.) creating greater expertise for air mobility.

Expand the AMC theater assigned Air Mobility Support Group

Commander's role to directly coordinate the strategic to theater air mobility flow.

Expanding the role of the two Air Mobility Support Group Commanders assigned to manage the support of AMC missions in the Pacific and European theaters, to include coordinating the strategic to theater air mobility process could have significant impact. Additionally, providing a small support staff, who can provide oversight of the AMC mission and can be the TACC's direct agent to coordinate with the theater air mobility system, would further improve the strategic to theater air mobility interface. For example, each of the Air Mobility Support Groups (AMSG), that reside in the Pacific and European theaters (one group is assigned per theater) could provide more of the tracking, and coordination effort for strategic to theater logistics flow in a similar manner that was formerly provided by the ALD. In much the same way, the AMC Air Mobility Support Groups could perform this function. Currently, the AMSGs are structured as:

Air Mobility Support Groups (AMSGs) at Ramstein AB [Germany] and Hickam AFB, [Hawaii] each with 6 subordinate air mobility support squadrons (AMSS) at key theater locations (additionally there is an AMSS at Howard AFB, Panama that reports directly to 21 AF). These organizations are sized to meet only day to day activity levels, providing in-place support for transiting aircraft. GRL (Global Reach Laydown) supplements the AMSSs when requirements exceed the capacity to support transiting aircraft. (White Paper, No Date:3)

Better interface between strategic and theater airlift systems can be achieved by bringing a small planning and control element forward from the TACC to the theater air mobility hub to coordinate better with the theater airlifters at the critical interface between the two systems. Currently, the AMSG administratively falls under the administrative organization of the AMC NAFs and they maintain a coordination relationship with TACC.

Standardize the theater airlift planning and control efforts. The peacetime planning and control effort for theater airlift is fractured. A way to improve this planning and control would be to use the tool that is stood up for contingencies: the ALCC. The ALCC could integrate under a single umbrella the separate airlift planning and control efforts that is now occurring within the overseas theaters.

In Europe for example, the ALCC should reside under the USAFE Director of Operations, and would consolidate the separate efforts being conducted by the USAFE operations staff, the USAFE Airlift Requirements Center, and the 86th Airlift Wing's Operational Support Squadron. The ALCC should be manned and equipped to effectively integrate with the AMC system. Ideally, the ALCC should be equipped to tie directly into a permanently designated AME residing within the theater AMC Air Mobility Support Group.

This theater organization would provide a central organization to tie with the AMC AMSG and the AMC strategic air mobility system. The following figure provides

an illustration of the potential relationship of a redefined AMSG and theater ALCC for the peacetime air mobility process.

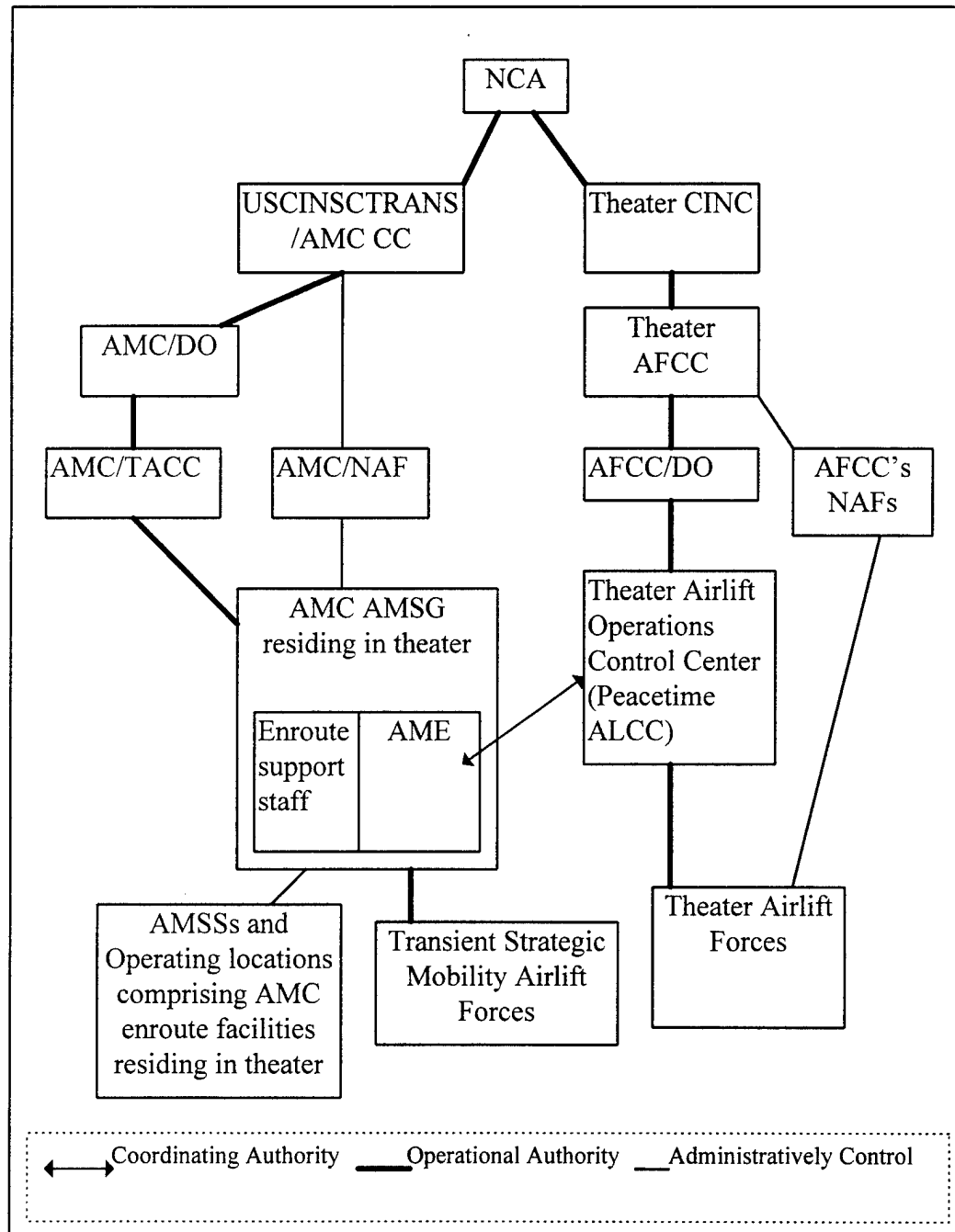


Figure 7: Proposed Peacetime Airlift Coordinating and Control Relationship

Benefits: This is where USTRANSCOM could provide overarching oversight of the mobility process through its air component of AMC and provide a better hand-off of the strategic to theater mobility effort.

In essence, the proposal forward deploys representation of the TACC to continuously work with theater airlift forces. This is not adding yet another interface between the strategic and theater systems. It is simply closing thousands of miles between separate strategic and theater planning and coordination efforts.

Currently, the AMSG commander is responsible for all the enroute sites, operating locations and contract operations for AMC within the forward theater. Appointing the AMSG commander as the strategic to theater mobility coordinator would sharpen the focus of the day to day mobility transition between the strategic and theater systems. To illustrate, this commander and staff could have established coordination authority between the AMC TACC and the theater's airlift operations commander and staff. This could result in a much better transition and coordination effort between theater and strategic air mobility systems.

Logic supporting the redefining of the AMSG to include a strategic to theater transition for planning, and scheduling the interface between the two air mobility cycles focus, comes from the discussed USTRANSCOM charter that charged the command with providing the interface between strategic and theater mobility systems.

This proposal would have an influence in solving mobility problems for both peacetime and contingency by providing an AMC commander that is in the theater,

focused on integrating strategic and theater air mobility and capable of organizing contingency air mobility operations. Providing the AMMSG commander a small staff similar to the Air Mobility Element that could assist the strategic to theater coordination, accomplished in the same time zone, could enhance issues discussed such as scheduling, command, control, and communications, TAV, and effective coordination for use of forces.

Illustration #1: The command and control of air mobility operations uses the Global Transportation Network to track visibility of cargo moving from the strategic to theater mobility systems. GTN uses the AMC Global Decision Support System (GDSS) as input for tracking movement in the strategic system, and the Command and Control Information Processing System (C2IPS) as the theater air movement tracking system. GTN is a system that enhances planning and controlling efforts. GTN does not replace planning and controlling efforts though, nor does any other command and control information system. A person is still needed to sort out the information the system provides in order to direct people and equipment. A forward element of the TACC (such as an AMMSG AME) working along side theater planners and controllers could greatly benefit by having a GTN tool. GTN, however, cannot replace that effort.

Illustration #2: As discussed, the difficulties between the strategic and theater mobility mission is readily apparent at the forward mobility hubs in the theater. However, there is line effort to minimize difficulties to integrating air mobility. For example, an initiative at the 623rd Air Mobility Support Squadron (AMSS) has an

informal arrangement that tries to recapture the seamless interface that previously existed during the era of the MAC Airlift Division (ALD), which singly coordinated all theater and strategic into theater mobility efforts. The current effort is called "Capability Forecasting," a program the 623rd AMSS is using to achieve a better coordination effort with the normal strategic to theater mobility flow. Some of the items included in this initiative are collecting and coordinating airlift requests, handover efforts for tracking items and personnel in-transit, and airflow management (Cwicklick, 1996).

This proposal is a blueprint of the idea behind staffing a full time AME within a redefined AMSG, which can directly enhance the interface between the strategic and theater mobility systems in both peace and contingency without changing command of force structure. This proposal enforces USTRANSCOM's charter of managing the transition between strategic and theater air mobility systems.

Drawbacks: Capping of military personnel in overseas theaters is a reality. Billets cost money. However, efforts to better integrate strategic and theater air mobility efforts may need to incur some addition of cost. Capping of military personnel can be worked around by manipulating positions that could be contracted versus filled by active duty forces.

Provide greater AMC support at the theater hubs or better equip the airlift system to handle the efforts. The staff increases of aerial port personnel at AMSSs that reside at the theater airlift hubs (such as Ramstein, Yokota and Elmendorf) would also reduce the rub between strategic and theater flow. It would also leave personnel

immediately on-hand to either assist a localized theater crisis, (using only theater lift) or integrate a combined strategic/theater surge. Particularly needed is AMC aerial port personnel to be re-qualified to handle phase II upload and down load of theater aircraft (Laub, 1995). If AMC support at the theater hub cannot be bolstered, the theater's will need to invest both in obtaining both manning and equipment to get better support for mobility operations.

Benefits: Addressed in Chapter IV. Additional AMC aerial porters resident in theater would reduce the commitment of frequent TDY personnel from the CONUS Air Mobility Operations Groups to augment the fixed enroute site for surge operations, a mission the AMOG is drawing away from anyway (DIRMOBFOR, 1996).

Drawbacks: As discussed, the number of allowable theater active duty have limits. Additional AMC personnel to the theater would most likely come from either contract or rotational ARC channels. Any additional personnel to support the mission costs money.

Perform realistic and frequent exercises. Very little of the air mobility participation in recent contingency operations has followed the the Time Phased Force Deployment Document deliberate planning process that is currently the method used for exercises (DIRMOBFOR, 1996). Coordination between the commands that operate mobility exercises in contingency operations would be enhanced by realistic inter-command mobility and deployment exercises. Currently ACC's BLUE FLAG command and control exercise is a valuable tool to train commanders and staffs in contingency

operations (DIRMOBFOR, 1996). BLUE FLAG and actual deployment of forces exercises that build on “lessons learned” from previous contingency operations, would help to further enhance the interface between theater and strategic mobility systems.

Benefits: Participation in joint command mobility exercises that require the employment of both theater and strategic mobility forces could alleviate a large portion of the disconnects that occur between commands. Inter-command mobility exercises would most probably highlight more efficient ways of organizing the planning and execution of contingency operations.

Drawbacks: Quite simply, time and money to perform the exercises.

Increasing the mobility expertise in the theater commands that operate mobility assets. As stated, air mobility expertise is not shared equally by the commands. AMC remains the resident command for mobility expertise. The Air Mobility Warfare Center’s (AMWC’s), “Advanced Study of Air Mobility” (ASAM) is a program that is educating mobility experts who can provide key mobility expertise to theater staffs. ASAM graduates possess the “mobility toolbox” to help a theater mobility operation interface better with AMC. ASAMs currently provide one echelon of expertise (the program is taught to senior captains and junior majors). Other AMWC programs educate customers and operators of air mobility assets across the services that provides a less detailed education across more echelons of the rank structure. A program with an ASAM style focus aimed at air mobility senior NCOs could provide an invaluable interface by

sending those folks out to the theater MAJCOMs that operate mobility forces. Such a program should be focused on line mobility operations.

Benefits: Knowledge is good. Education of how to do mobility helps the process by creating better folks to operate the mobility system. The AMWC is a perfect place to keep inventing new and better ways to educate and operate mobility processes.

Drawbacks: Cost of training. Developing a mobility education program geared for the professional NCO corps would take both time and money.

Improvements by Changing Force Structure

The following are options to restructure ownership and command of air mobility assets and functions in order to improve seamless air mobility.

Restore all theater airlift forces to Air Mobility Command. USTRANSCOM, with AMC as its single air component. AMC becomes the single manager for all DoD airlift.

Details: Deployment of airlift to a theater JFACC or AFCC relationship could be coordinated and accomplished by a COMMOBFOR. This concept would entail theater air mobility forces under the OPCON of the COMMOBFOR to command theater air logistics, coordinate with the AOC for theater airlift integration in the air campaign, and coordinate with the TACC for integration of other AMC forces in the theater air logistics effort. Additionally, AMC would authorize the COMMOBFOR TACON of transient strategic air mobility forces as needed to support theater airlift requirements (COCOM of all mobility forces would remain under USCINCTRANS). This command

and control arrangement of AMC forces would be the same as discussed “Redefining the role of the DIRMOBFOR.”

Benefits: The warfighting CINCs gain a single point of contact for all air logistics needs, through the COMMOBFOR. Theater airlift is available (via OPCON) to warfighting CINC’s in order to perform combat delivery missions and/or integrate in a theater air campaign as needed. However, the warfighting CINC can take the “outsource” management approach to the theater’s airlift needs because of the COMMOBFOR’s direct relationship with the AMC chain. Combatant command of all mobility forces would remain with USCINTRANS.

USTRANSCOM/AMC still provides considerable “in-theater” mobility presence and support. Although considerably smaller than previously, AMC supports and operates mobility fixed en-route facilities within the forward theaters. These facilities provide aerial port, aircraft maintenance, and command and control nodes to both strategic and theater assets. AMC provides both military and contracted government personnel to these facilities, which are key elements of the global defense transportation network. Additionally, USTRANSCOM and AMC are the single managers of contract airlift support, both inter-and intra-theater (Newland, 1996).

The effectiveness of these operations does highlight the ability of a functional organization such as AMC to provide air logistics support to the warfighting theater commands. Further, this arrangement does indicate that at least from the air logistics

perspective, airlift operating in a theater can fully support a warfighting CINC without being owned or managed by the warfighting CINC.

Drawbacks: Conflicts with what the customer (the CINC) wants. The CINC wants full time control of assets residing in the theater. Under this proposal, the theater CINC does not own all the forces that the CINC will be fighting with (although the agencies under the CINC's control would have OPCON and TACON of airlift forces that would be needed in executing an air campaign). Also, there would be theater bases (most likely Ramstein and Yokota) which would be primary candidates to be AMC controlled. Thus the influence of the overseas theater commander owning all assets in the theaters becomes a challenge. Additionally, there is a cost associated with transfer of command for personnel and equipment.

Restore all CONUS based theater airlift forces to Air Mobility Command.

USTRANSCOM acquires COCOM of all CONUS based airlift. AMC gains full control of all CONUS based airlift assets. Theater airlift forces that are under the control of the Pacific and European Air Forces (PACAF and USAFE) remain in their assigned theater.

Details: The supporting relationship between the theater CINCs for theater air mobility support is rationally very similar to the relationship that the "All Air Mobility Forces back to AMC" option would entail. PACAF and USAFE would provide organic theater forces for lift needs within those theaters. When airlift augmentation is required for the Pacific and European theater, (and all) airlift required for other theaters, a COMMOBFOR would be established to integrate organic theater airlift and AMC

provided air mobility forces. COCOM of all AMC assets would fall under USCINCTRANS. OPCON of all theater mobility forces would fall under the COMMOBFOR. TACON of non-theater deployed AMC assets would be granted to the COMMOBFOR, OPCON remaining with TACC.

Benefits: Under this arrangement, the warfighting CINC still has a “one stop shop” for air logistics and combat delivery augmentation (the COMMOBFOR). As important as command and ownership of the theater air assets are to this reorganization, this option more importantly re-grouping all the CONUS based active duty and ARC air mobility support units under one parent MAJCOM. This is necessary to capture the synergistic effects of the limited but vital support function.

The efficiency provided in a rapidly changing mobility world by TALCEs [and other mobility support assets] are critical to the TRANSCOM mission....On a macro level TALCEs support the delivery of cargo and troops required by the war fighters. As such, their mission is logically within the realm of USTRANSCOM. (Bruno, 1996:6)

Drawbacks: Losing the combat focus of theater airlift that has been enhanced while ACC has had control of CONUS C-130s. ACC has also enhanced the training of C-130 aircrews by greater involvement with the other combat air forces. If CONUS C-130s were to transfer to AMC, it would be greatly beneficial if AMC fully “strapped on” the combat enhancements of theater airlift developed during ACC’s tenure of owning CONUS theater airlift.

Reassign USTRANSCOM in lieu of USACOM as the “forces for” gaining combat command authority for CONUS based C-130 forces. As previously discussed, current “forces for” document retains 50 CONUS ACC owned C-130s under the combatant command of USACOM. This option would transfer all the theater airlift owned by ACC as forces for USTRANSCOM.

Details: All the theater airlift assets under USACOM would be transferred to USTRANSCOM for combatant command. USTRANSCOM then would have two air components operating forces: AMC and ACC. This option would assist integration to the other theater CINCs who would only have to broker with one air mobility agent for air mobility augmentation. USTRANSCOM would have (at minimum) control of all provided air mobility forces. The day-to-day operational command and control of all the air mobility fleet would most probably remain at AMC’s TACC. However, in the spirit of an “honest broker” between USAF MAJCOMs providing forces, there would be a possibility of shifting at least part of that responsibility to USTRANSCOM’s Mission Control Center (MCC). As such, the chain of command and coordinating authority relationship could shift to having OPCON coordinating authority from the TACC/CC and TACC to the USTRANSCOM J-3/4 Director and MCC. In this case, the scope and mission of TACC could shift to more of a planning and coordination staff working airlift planning details on behalf of USTRANSCOM’s MCC. Reference Figure 8 for a diagram of the relationship.

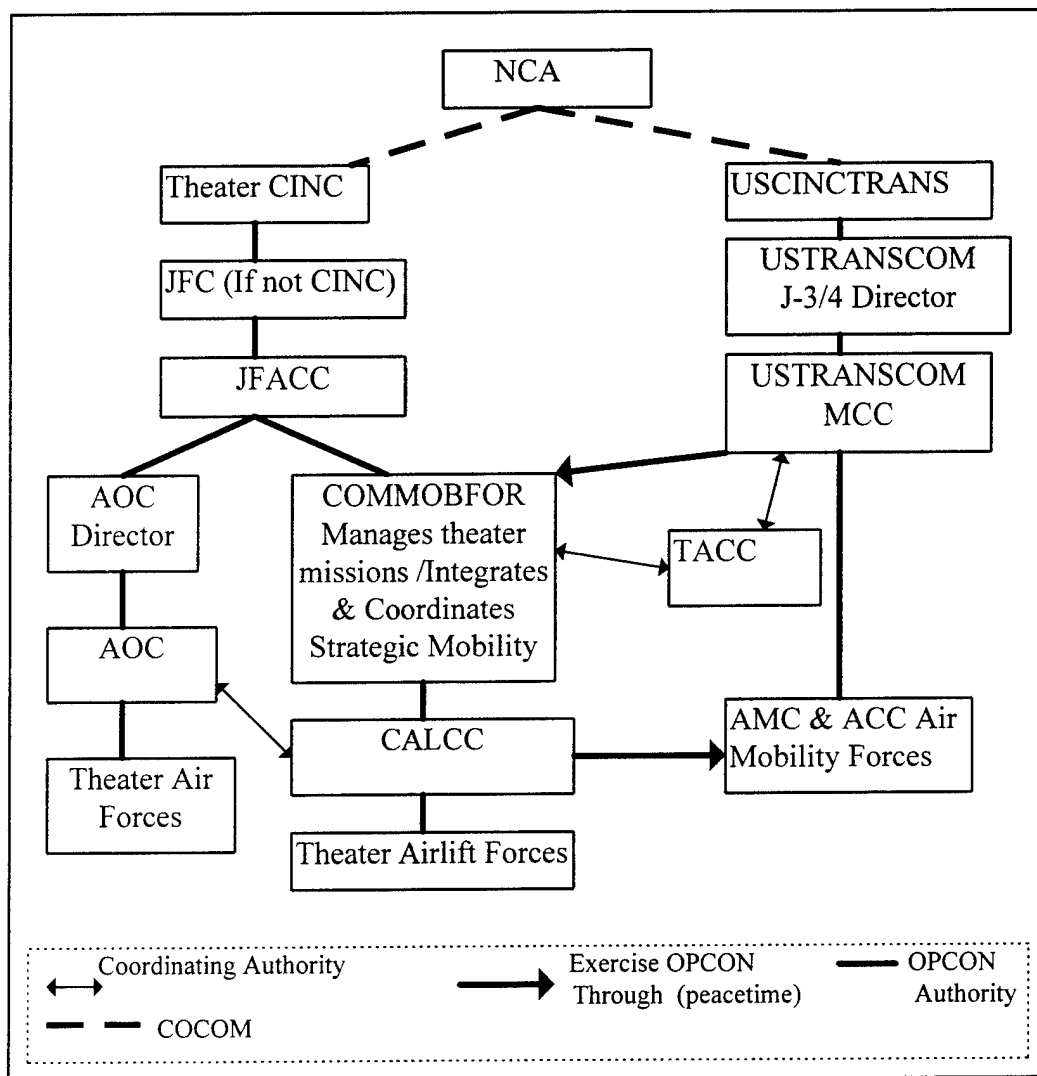


Figure 8: Potential Command & Control Structure using the MCC in lieu of TACC

Benefits: This option would allow the combatant command of all CONUS based airlift and airlift support assets to belong to USTRANSCOM. Thus all the geographic warfighting CINCs still have just one place to “shop” for airlift and airlift support augmentation. With USTRANSCOM having both AMC and ACC airlift assets

as air components, they could conceivably engineer better command to command arrangements. Concerning control and tasking between its the two air components than is workable between two CINCs (USTRANSCOM and USACOM). This arrangement would allow airlift improvements without having assets endure a USAF MAJCOM "patch change" and would allow each MAJCOM to continue funding and other MAJCOM sourcing efforts "as is." By attaining two air components USTRANSCOM can provide a better integrated approach to the supported "CINC" which entails both an "air logistics" and "air combat integration" focus for contingency augmentation efforts.

Drawbacks: This achieves the priority of shifting COCOM of CONUS airlift forces to USTRANSCOM, but AMC could better integrate CONUS airlift forces as a single USAF MAJCOM subordinate to USTRANSCOM. There would potentially be both a mission and manpower shift from AMC's TACC to USTRANSCOM's MCC, if OPCON of forces for ACC provided assets were an issue (i.e. ACC did not want to formally allow OPCON to the AMC TACC, which shifts USTRANSCOM away from their centralized control/decentralized execution relationship with component commands). In reality however, this should not be an issue, because today the TACC virtually is the command and control facility for ACC's operationally tasked C-130 missions. Thus, in lieu of shifting the mission and focus of the TACC to the MCC, a "first response" should be that the current Memorandum of Agreement between ACC and AMC that control of ACC provided airlift forces should be extended to allow operational control of ACC provided forces to fall under the AMC/DO and TACC.

VI. Recommendations and Conclusion

Discussion

It is vital to regain a fully integrated air mobility system. Research suggests the best way to regain a seamless system should focus on fixing the problems that the divided air mobility system now experiences: the ability to communicate, coordinate, cooperate, and orchestrate, a singly operated system that uniformly and efficiently serves the customer, in both peace and war.

Achieving the effect of a singly operated air mobility system is the desired outcome. However, there are many ways of achieving that effect. The simplest way to create seamlessness would be to place all air mobility assets under a single command, and provide a common-user “outsourced” logistics mobility system to the warfighting CINCs. That is not the best answer. There are reasons that have been highlighted which the warfighting CINCs rightfully need control of all their theater assets, and their own theater distribution system. Theater command of theater assets makes sense, and keeps responsiveness and a combat warfighting focus.

It is important to emphasize that theater in this context is the overseas geographic theaters, the bonafide “warfighters.” USACOM does not currently fall under this definition. The recommendation that follows keys on that important distinction. Therefore, constructing an interface between the strategic, centrally controlled system and

the individual theaters is vital to create the effect of seamlessness, while providing the theater controlled system to the warfighting CINCs.

Peacetime air mobility requires a much less intense effort to coordinate between the commands that operate mobility. Nevertheless, peacetime efforts should always be posturing the forces to better carry out contingency and wartime capabilities.

Standardizing the differences between the commands who operate air mobility, and standardizing the differences between peacetime and contingency operations is the best way to integrate the separate air mobility systems. This means that creating peacetime structures that are different in scope and function, than the structure used for contingencies does not make sense. As described, the theater peacetime command and control system can and should look a lot more like it is doctrinally designed to look like for contingencies.

As discussed, the C-17 provides the capability to operate between strategic and theater roles. It is a logical argument that under the two MRC strategy, however, the C-17 will be pressed into a primary strategic role. However, many theater contingencies will be able to get much useful airlift from the C-17. Thus, an effective command relationship to exploit the capabilities of the C-17 and other future multi-role airlift aircraft systems, within the theater airlift effort, is vital for the future.

Theater air mobility's two mission focus is a critical issue. The CAF focuses on the combat delivery of theater airlift's air operations force component, while functional air mobility folks advocate theater airlift is an integral part of the air logistics process.

Both aspects are important. In essence, the bulk of the theater airlift mission is “point a to point b” air distribution, but the smaller percentage of combat delivery missions carries at least as much, if not more, critical value.

The priorities of the most important elements to reconnect the air mobility system need to be established. The priorities should differentiate “must do” versus “should help” in deciding the best method for organizing air mobility forces. The priorities should also differentiate the amount of change required to keep costs down and minimize disruption to the current air mobility system. Thus, the listed priorities are intended to be “these are the minimums that need to be changed” from the current command structure of air mobility forces in order to best integrate the air mobility system.

The current air mobility system does bring advantages that are valued by the warfighting CINC, which is command of all the assets that live in the theater and participate in the theater’s fight. Integration of the current system is achievable under the current structure if the following can occur. First, enhance the effective interface of the people and their equipment who command and control the divided airlift system. This will ensure the command, control, communication, coordination, and cooperation between the commands that operate mobility forces at all echelons provides the effect of a single, unified effort. Second, as the advocate and manager of the US defense transportation network, USTRANSCOM should be used by the theater commands who operate air mobility forces as the “go to source” for mobility expertise. Also,

USTRANSCOM should seek to standardize processes and equipment to better improve the integration between the strategic and theater air mobility systems.

The solutions to fix the air mobility system are dependent on how dramatic a change USAF leadership is willing to tackle. The recommendations presented are in the same format as discussed in the preceding chapter: Recommendation for improving air mobility options with and without changing mobility force structure.

Recommendations: Priority of Needed Force Changes

Priority #1: Place CONUS airlift forces under the COCOM of

USTRANSCOM. This would entail shifting COCOM of ACC assigned theater airlift forces from USACOM to USTRANSCOM. USACOM is currently a contested combatant command, with limited need to command theater airlift forces. This is a must do item. As will be discussed in priority #2, AMC is the logical USAF “owner and operator” of CONUS based airlift, but this first priority is the important first step in integrating the airlift system. Reasons why are listed:

- 1.) Consolidates CONUS based airlift providers under a single combatant commander, for airlift forces (vice 50 COCOM theater assets to USTRANSCOM and the remainder to USACOM).

- 2.) Provides USTRANSCOM direct control of critical air mobility support forces (both active duty and ARC) which would need to be transferred from USACOM in any case at the onset of a contingency.

3.) Retains theater airlift's combat focus which has been enhanced while theater airlift has been under the management of ACC.

4.) Allows unity of command, for CONUS based forces, without "patch-changing" the USAF MAJCOM operators of airlift forces. This change would save restructuring of forces (and potentially basing) of CONUS based airlift forces. It would allow for the most significant restructure of airlift force with the least amount of actual change of line and staff forces to accomplish the mission.

5.) Removes a "disconnect" that USTRANSCOM would be provided 50 CONUS C-130s and support for contingency use while the rest remained under USACOM. This parcels CONUS theater airlift, which as discussed, degrades the effect of that portion of the mobility system.

6.) The other geographic CINCs retain control of their theater forces, which allows them control they desire, while giving them "one stop shop" for airlift augmentation.

7.) Gives USTRANSCOM a better opportunity to focus on improving the interface of the other seams in the air mobility process, by removing the CONUS forces seams.

8.) The ACC/USACOM relationship would be preserved. Although USACOM has COCOM of ACC forces, the primary focus of ACC is that of a force provider to other CINCs. However, ACC already force provides to several other CINCs.

There is a point where ACC would be "serving too many masters" by providing forces for too many CINCs.

Discussion: ACC is an air component of USACOM and provides forces to USACOM for combatant command. ACC however, also provides forces to other combatant commands such as USCENTCOM, USSOUTHCOM, etc.--arguably a primary purpose of ACC is that of a force provider. However, operating within USACOM's AOR is USTRANSCOM. USCENTCOM has to go to other CINCs for obtaining theater airlift forces. USTRANSCOM could provide USACOM theater airlift forces in much the same manner if needed to resolve a conflict within USACOM's theater. By having a single manager of CONUS airlift, there is a single source to the non-CONUS theaters to turn to for airlift augmentation.

An issue which would need to be determined between AMC and ACC is the control of theater airlift forces for operational missions. Would AMC's TACC still provide for the command and control as now accomplished, or would an "honest brokering" be better accomplished by USTRANSCOM's MCC? The ultimate decision for that would need to be determined by USCINCTrans.

Priority #2: Return all ACC theater controlled airlift forces to AMC. This option entails shifting ownership of all ACC theater airlift assets to AMC, while leaving the Pacific and European theater airlift controlled by those MAJCOMs. There is significant value to achieving this return. However, compared to placing COCOM of CONUS based forces with USTRANSCOM, this would be a "second step." Such a

transfer would be costlier to accomplish than Priority #1, because of potential for shifting of assets, rebasing, etc. However, the reason the CONUS theater airlift forces were sent to ACC to begin with was to provide USACOM combatant command of theater airlift, along with other combat air forces. Today, USACOM does not appear to need COCOM of those forces. Logically, one versus two air components under USTRANSCOM balances the joint force structure of that command. Because COCOM of CONUS based airlift forces returning to AMC would return to USTRANSCOM, Priority #1 reasons #1, #2, #5, # 6, and #7 would also apply in support of Priority #2. This option makes the most sense, but costs more than the first priority.

1.) Consolidating all CONUS lift under the ownership and control of AMC would aid integration of the air mobility system, and importantly propose a more efficient way of operating the CONUS based air mobility system. As discussed, operating multiple air mobility systems does increase overlap and duplication of effort-- AMC owned and controlled airlift systems, at least for CONUS based forces reduces those attributes. The command and control of all CONUS based airlift would be accomplished through AMC's TACC. There would be only one USAF MAJCOM versus the two USAF MAJCOMs in Priority #1 to coordinate for USTRANSCOM's operational requirements.

2.) Strategic and theater air mobility interface can be improved by this transfer by having a CONUS based airlift force that can provide a total lift augmentation package for the theater combatant commands. This provides overseas theater CINCs

single management for lift support (same effect as discussed in Priority #1). The change would standardize AMC control of CONUS air mobility assets, while PACAF and USAFE have a small percentage of both tanker and theater airlift under direct control. Most importantly, USTRANSCOM and AMC both gain control of the air mobility support assets such as the active duty and ARC ALCEs and support personnel and equipment to improve efficiency and effectively utilize of those vital functions.

3.) AMC would remain the single air component of USTRANSCOM, eliminating the need to revise the unified to component command relationship as would occur under Priority #1.

4.) AMC would need to incorporate the doctrine and training developments of combat delivery developed while CONUS based theater airlift resided under ACC.

Recommendations: Priority of Changes For Improving Strategic to Theater Air Mobility Integration.

The proposals from the previous chapter all suggest ways to improve the command, control, coordination, and communication interface between theater and strategic mobility systems. If an unlimited budget were available to implement all of the proposals discussed in that chapter, the author would recommend that all be implemented. Unfortunately, the USAF budget is limited, and hard choices have to be made. Dollars should be spent in improving air mobility operations where it would have

the greatest impact. Therefore the following rank order of the proposals would be recommended:

Priority #1: Standardize the peacetime structure of the theater air mobility efforts to reflect contingency doctrine structure. Consolidate the airlift planning, forces tasking, and command and control within the theaters. That organization should be the ALCC.

Priority # 2: Expand the AMC theater assigned Air Mobility Support Group Commander's role to directly coordinate the strategic to theater air mobility flow: This proposal would institutionalize a senior AMC commander and small support staff at the mobility hubs that directly coordinate the strategic to theater air mobility flow. This would be a permanently assigned senior officer and a small support staff, who can provide oversight of the AMC mission and can be the TACC's direct agent to coordinate with consolidated the theater air mobility planning and control system (such as the ALCC).

Consideration should also be given to the actual physical location where the AMSG actually resides. In Europe, the AMSG is collocated with the theater air mobility hub and assigned theater airlift forces. That location gives better opportunity for the AMSG and AME to better integrate because both work at the same installation. The Pacific on the other hand, has the AMSG located at Hickam AFB Hawaii, thousands of miles away from the theater airlift transshipment points and theater airlift forces at Elmendorf AFB, Alaska and Yokota AB, Japan. It makes more sense, to operate AMSG

and AME efforts where direct contact can be made with theater airlift forces, and standardize between the theaters.

Priority #3: Change the DIRMObFOR to a COMMOBFOR, and position a combined theater ALCC and strategic AME (the CALCC) under the direction of the COMMOBFOR. One benefit of this proposal is that it should be able to be accomplished "cost free"--it only requires a realignment of command authority for contingency operations.

Change the doctrinal definition of the DIRMObFOR to a COMMOBFOR with a OPCON reporting chain to the JFACC and give that commander OPCON of theater mobility forces and TACON from the TACC of deploying strategic air mobility forces.

As discussed, place both the elements of contingency airlift planning, the ALCC and the AME in one planning cell, a combined ALCC (or CALCC), and place under the COMMOBFOR. OPCON from the JFACC for theater airlift and TACON from the TACC to the deployed strategic air mobility forces would be exercised by the COMMOBFOR and the CALCC to task and execute contingency airlift operations. At least some of the manning for this contingency structure can come from the assigned theater "peacetime" ALCC and the AMSG AME. The remainder would deploy from CONUS and or theater provided forces.

The primary benefit from this reorganization is there is definite single controlling authority in the theater for air mobility operations, working for the JFACC and

integrating with AMC to the degree of flexibility needed by AMC to execute support for the two MRC scenario.

Priority #4: Provide greater AMC support at the theater hubs. As discussed, the proposal is focused in a staff up of personnel to the AMSS who reside at the theater airlift hubs. The overall mobility operation would be improved by manning the hub AMSS with personnel to assist in the transfer of cargo and assets between strategic and theater mobility missions. Additional AMC aerial porters resident in theater would reduce the commitment of sending personnel TDY as frequently from the CONUS Air Mobility Operations Groups to help robust the fixed enroute site for surge operations. The plus up of AMC personnel at the theater air mobility hub places more mobility expertise where it is critically needed.

Priority #5: Increase the mobility expertise in the theater commands that operate mobility assets. The Air Mobility Warfare Center should investigate how to get more mobility expertise out to the system where it is needed. For example, an air mobility expert program that is a sister program (of more operational scope, and no AFIT involvement) to the ASAM program for NCOs could help cultivate a larger corps of mobility expertise. Graduates of such a program could be incorporated both in AMC Air Mobility Operations and Support Groups (AMOGs and AMSGs), as well as theater planning and command organizations (such as the ALCC).

Priority #6: Continue to enhance mobility and deployment operations.
Lessons learned from operational mobility deployments focused on problems

encountered between inter-command coordination and interface should be a primary goal of mobility and deployment exercises. Deployment of forces often gets “assumed away” in joint exercises (Murin, 1996). Inter-command doctrine exercises would be a superb way of testing the proposed command and control arrangement of a COMMOBFOR and CALCC discussed in this project.

Conclusion

In the real world, decisions are influenced by a myriad of peripheral issues which detract from focusing on ideal solutions. Fixing the air mobility system takes the courage for leadership to do the right thing, despite the influence of non-core issues. Adhering to military principles, such as standardizing operations, and clear lines of authority, are fundamental concerns to improving mobility efforts.

The summary need of today’s system is as follows. Align CONUS forces under one combatant commander, consolidate contingency staff and planning processes, establish an appropriate subordinate air mobility commander to the contingency air forces commander, and organize peacetime structures and processes to mirror contingency structures and processes.

It is the authors sincere hope that the issues raised in this research effort help to clarify what is needed to fix the air mobility system so that it operates and serves the customers more effectively and efficiently. The ability to rapidly move personnel and equipment from the CONUS base through to a forward confrontational point effectively

is a key facet of our national security strategy. An air mobility system which can accomplish that mission seamlessly as possible is a critical element of that strategy.

Bibliography

- Air Force Manual 1-1. Basic Aerospace Doctrine of the United States Air Force, Vol. 1. Washington DC: GPO, March 1992.
- Air Force Doctrine Document 30. Airlift Operations. Langley AFB VA: USAF Doctrine Center, 28 April 1995.
- Air Force Doctrine Document-6 (DRAFT). Air Mobility Operations. Langley AFB VA: USAF Doctrine Center, 12 September 1996.
- Bailey Maj Pete, and Maj Jay Reed. C-130 Aircraft as Common User Resources. Scott AFB IL: Headquarters Military Airlift Command, XPPB, January 1992
- Billings, Lt Col. "Intransit Visibility for Intra-Theater Airlift," Joint Universal Lessons Learned Long Report # 10247-26003. Scott AFB IL: USTRANSCOM/J3ODR, 24 Jan 96.
- Bird, Lt Col. "Pre-Planning for BOS Requirements in the AOR," Joint Universal Lessons Learned Long Report # 10252-37513 (00026). Scott AFB IL: Headquarters AMC/CEP, 24 Jan 1996.
- Breeding, Cdr. "Transloading Strategic Airlift Requirements and ITV," Joint Universal Lessons Learned Long Report #22249-22334. Scott AFB IL: USTRANSCOM/J3-OP/OS, 2 February 1996.
- Bruno, Maj Bob. "TALCES: The Fingertips of Global Reach." Air Mobility Voices, the Journal of the Air Mobility Warfare Center, Volume 1, Number 1, (Spring 1996).
- Cole, Ronald H., Walter S. Poole, James F. Schnabel, Robert J. Watson, Willard J. Webb. The History of the Unified Command Plan, 1946-1993. Washington DC: Joint History Office, Office of the Chairman of the Joint Chiefs of Staff, 1993.
- Coolidge, Brig Gen. "DIRMOBFOR Function not Understood by CINC Staff." Joint Universal Lessons Learned Long Report #92523-10385 (01640). Scott AFB IL: Headquarters Air Mobility Command, 21 March 1996.
- Cwicklick, Capt. 623rd Air Mobility Support Squadron Address to Advanced Study of Air Mobility Students. Ramstein AB GE: 623rd Air Mobility Support Squadron, 5 August 1996.

- Deputy Chief of Staff, Plans and Operations, Headquarters USAF. Joint Air Force Component Commander (JFACC) Primer (Second Edition). Washington DC: USAF/XOXD, Air Force Pentagon. February 1994.
- Devereaux, Richard T. "Theater Airlift Management and Control--Should We Turn Back The Clock to be Ready for Tomorrow?" School of Advanced Airpower Studies Thesis. Maxwell AFB AL: Air University Press. September 1994.
- Dietrich, Maj. "Integration of C-130s Into Airlift Planning," Joint Universal Lessons Learned Long Report #10246-00839 (00022). Scott AFB IL: USTRANSCOM/J3-ODE, 24 Jan 1996.
- DIRMOBFOR. (Director of Mobility Forces). Notes and information exchanged at Headquarters USAF Air Mobility Warfare Program for Senior Mobility Leaders. Ft Dix NJ: HQ USAF Air Mobility Warfare Center, 9-12 September 1996.
- Evans, Lt Col C.J. "EUCOM/TRANSCOM Joint Movements Center." Stuttgart GE: US European Command J-4 Briefing to the Advanced Study of Air Mobility Class 95-2, 6 August 1996.
- Fogleman, General Ronald R. "Defense Transportation in a Changing World." Defense Transportation Journal: 14-16 (June 1993).
- Grabowski, Col Norbert (Ret). "Frank Weber presentation at Logistics Forum and Exposition." Defense Transportation Journal: 21-33 (Nov-Dec 1994).
- Headquarters Air Combat Command, Mobility Operations (ACC/DOOM). "Notes and Slides for Air Combat Command's Proposals for Seamless Air Mobility," Langley AFB VA: Headquarters Air Combat Command, Operations Directorate, August 1996.
- Joint Pub 3-0. Doctrine for Joint Operations. Washington DC: Joint Chiefs of Staff Publication, 1 February 1995.
- Joint Pub 3-17. Joint Tactics, Techniques, and Procedures for Theater Airlift Operations. Washington DC: Joint Chiefs of Staff Publication, 18 July 1995.
- Kennedy, Betty R. Evolution of Roles and Missions Authorities Vested in AMC and USTRANSCOM, 1941-1994. Scott AFB IL: Background Paper at Headquarters Air Mobility Command Historian's Office, 30 Nov 1994.

- Krisinger, Lt Col Chris J. "Airlift to the Balkans: Something New, Something Old." Defense Transportation Journal: 16-17 (June 1996)
- Krisinger, Lt Col Chris J. "Towards A Seamless Mobility System." Air Power Journal: 30-45 (Fall 1995).
- Laub, Maj John. Notes and information gained from leading 86th Airlift Wing and 623rd AMSS Process Action Team regarding AMC support of 86th Airlift Wing operations, Summer 1995.
- Leiser, Dr. Gary. Oral History with Brigadier General Edwin Tenoso, COMALF in Saudi Arabia During Desert Shield/Storm. Travis AFB CA: Twenty Second Air Force Historian's Office, 28 May 1991.
- Lorenz, Col Stephen R. "Operation HURRICANE MARILYN After Action Report, Part 1." Joint Universal Lessons Learned Long Report #12056-18043." McGuire AFB NJ: 305 AMW/CC, 12 December 1995.
- Matthews, Dr. James K. and Cora J. Holt. So Many, So Much, So Far, So Fast: United States Transportation Command and Strategic Deployment for Operation Desert Shield/Desert Storm. Scott AFB IL: Office of the Chairman of the Joint Chiefs of Staff and Research Center, United States Transportation Command, 1995.
- Matthews, Dr. James K. and Dr. John Leland. General Ronald R. Fogleman, Commander in Chief, United States Transportation Command and Commander, Air Mobility Command: An Oral History. Scott AFB IL: US Government Printing Office, 1995.
- Matthews, Dr. James K. and Dr. Jay H. Smith. General Hansford T. Johnson, Commander in Chief, United States Transportation Command and Air Mobility Command: An Oral History. Scott Air Force Base IL: Offices of History, United States Transportation Command and Air Mobility Command. US Government Printing Office, 1992.
- McPeak, General Merrill, A. Selected Works. Maxwell AFB AL: Air University Press, 1995.
- Meilinger, Col Phillip S. "Ten Propositions Regarding Airpower." Airpower Journal, Vol# X, No. 1. 50-70 (Spring 1996).
- Miller, Lt Col Charles E. Airlift Doctrine. Maxwell AFB AL: Air University Press, March 1988.

- Moncrief, Maj Keith. "Address to HQ Air Mobility Warfare Center Combat Tactics Course." Ft Dix NJ: USAF Air Mobility Warfare Center, 15 June 1996.
- Murin, Maj Len. Telephone conversation regarding Air Mobility Doctrine and Current Force Structure Issues. Langley AFB VA: US Air Force Doctrine Center, 15 October 1996.
- Newland, TSgt Robbie. 621st Air Mobility Support Group Briefing to the Advanced Study of Air Mobility. Ramstein AB GE: 621st Air Mobility Support Group Orientation to the Advanced Study of Air Mobility, 5 Aug 1996.
- Owen, Lt Col Robert C. "The Airlift System--A Primer." Air Power Journal. 16-29 (Fall 1995).
- Skinner, Samuel K. Moving America, New Direction, New Opportunities, A Statement of National Transportation Policy Strategies for Action. Washington DC: GPO, 1990.
- Snyder, Lt Col D. Notes and information regarding AMC discussion of Seamless Air Mobility. Scott AFB IL: Headquarters, Air Mobility Command. September, 1996.
- Thirty Seventh Airlift Squadron (37 AS). Mission Operation Notes and Information. Ramstein Air Base GE: 86th Airlift Wing, 86th Operations Group, 1995.
- Tunner, Lt Gen William H. Over The Hump. New York: Duell Sloan, and Pearce, 1964.
- United States Air Force Air Mobility Command "AMC Fact File," 1995.
- United States Transportation Command "USTRANSCOM Fact File," 1995.
- Verling, Lt Col. "Seamless Airlift System", Joint Universal Lessons Learned Long Report # 22154-58583 (00012). Scott AFB IL: USTRANSCOM J3ODR, 24 Jan 1996.
- Wax, Brig Gen C.J. "Tanker Airlift Control Center." Address to the Air Mobility Operations Course. USAF Air Mobility Warfare Center, Ft Dix NJ, 16 October 1995.
- White Paper. "A Review of Today's Airlift System" Scott AFB IL: Headquarters Military Airlift Command White Paper, No Date.

White Paper. "In Support of Global Reach," Scott AFB IL: Air Mobility Command White Paper, No Date.

Williamson, Col Dave, and Multi-Command Team: Assessing the Current and Future Air Mobility Enroute Infrastructure. Scott AFB IL: Headquarters Air Mobility Command sponsored Multi USAF Command Study, 30 June 1993.

Vita

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He then attended Undergraduate Pilot Training, at Vance AFB, Oklahoma, earning pilot wings in 1990, subsequently trained in the C-130 at Little Rock AFB, Arkansas, and was assigned to Rhein-Main AB, Germany, where he served as an instructor pilot, assistant flight commander, squadron, and assistant wing executive officer. Major (S) Kee then was assigned to Ramstein AB, Germany, where he served as Flight Commander, Chief Pilot, and Commanded unit Stan/Eval, Safety and Quality Programs. In September 1995, Major (S) Kee entered the School of Logistics and Acquisition Management, Air Force Institute of Technology as part of the Advanced Study of Air Mobility (ASAM) program.

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13. ABSTRACT (<i>Maximum 200 Words</i>) Air mobility forces participating in contingency operations have experienced difficulties in coordinating, controlling, communicating and operating airlift in a combined effort since the 1992 realignment of mobility forces. Problems have occurred that suggest that the divisions in the command, control, communication, cooperation, manning, and equipment between the strategic and theater air mobility systems are not interfacing effectively, reducing the effectiveness. Historical operations and command alignments are reviewed to provide lessons learned to propose alternatives that address 1.) the most logical organization and resident command of airlift forces, 2.) airlift contingency command and control structure, and 3.) factors that can improve the current air mobility operation as a whole. Today's system needs to align CONUS forces under one combatant commander, consolidate contingency staff and planning processes, establish an appropriate subordinate air mobility commander to the contingency air forces commander, and organize peacetime structures and processes to mirror contingency structures and processes.				
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