WHITE PAPER

AIR MOBILITY COMMAND

GLOBAL EN ROUTE STRATEGY

EXECUTIVE SUMMARY:

The current strategy for our en route system is based on the results of the 1995 Mobility Requirements Study-Bottom Up Review (MRS-BURU) with refinements by mobility capabilities studies in 2000 and 2005. The Global War On Terror has raised questions on the validity of the current mobility en route system's sizing and alignment. Furthermore, the evolution of air mobility aircraft, operations, and various stressors on the en route system indicate a need to reevaluate the capabilities required in the en route system.

The current National Security Strategy and National Defense Strategy provide the baseline for what our mobility strategy should be capable of achieving. The Nation's emphasis on global alliances, economies and responsibilities mandates global access and especially access to strategically important areas of interest. Therefore, the goal of the proposed AMC en route strategy is global access allowing the full spectrum of passenger and cargo movement.

The Areas of Interest, defined as continuing zones of hostility or instability or areas prone to natural disasters and having the greatest need for airlift support, are identified as Southwest Asia, Southeast Asia, Korea, Africa, Eurasia, and Indonesia. Accordingly, the en route lay-down and infrastructure must be able to support a heavier flow to these regions. In addition, the resulting strategy accounted for political sensitivities and was optimized for a presumed tight fiscal environment. Finally, while the existing strategy maximizes the operational capabilities of our mobility platforms, the new strategy must accommodate the limitations of services and support in those locations we could be asked to transit.

In this proposed strategy, unlike in previous en route strategies, we've factored in the family of tanker assets in our approach. While A/R assets have the ability to extend airlifter's range, this factor was not considered in the previous en route system strategy's structure, primarily because the system is designed to be responsive to worst-case scenarios, i.e., A/R assets not being available to refuel airlift assets.

The previous strategy was based on the "lens," or "sweet spot", for strategic airlift operations, describing physical and technological limitations of the strategic airlift fleet overlayed on the geographic landscape. The lens concept will be no less valid in 2025 than it was when it was first conceived; however, in the proposed strategy we will refine its utility. The new strategy does break from the historical view of a "location-centric" en route concept which promotes viewing the en route through its individual locations rather than as an interdependent system. This perspective could result in decision-making that fails to consider the effect on the entire strategy. For example, efforts to reroute airlift flow to certain locations in order to reduce fuel consumption fail to account for the impact on the entire en route system. Instead, the proposed strategy adopts a system of mutually supporting routes, allowing one to more readily see the en route as a system of interdependent capabilities rather than a loose collection of locations. The Atlantic and Pacific route systems are described below.

The Atlantic Route Strategy: We propose that there are three primary routes for supplying the warfighter—northern, central and southern. These Atlantic routes have the

advantage of providing overlap for each other. This feature of the Atlantic routes leads us to postulate an alternate name for the Atlantic strategy—"Three-Use-Two." In other words, we have three routes across the Atlantic, and for any given action in one of the areas of interest, two of the routes are available for delivering supplies to those areas. Should one route become restricted or unavailable for whatever reason, political, meteorological, operating hours, saturation, etc., supplies can be diverted through the additional supporting route.

The Pacific Route Strategy: We acknowledge in the Pacific that there are two primary routes to supply the warfighter. We expand on the original "2-Lose-1" strategy by proposing a "Two Route Plus" option. The strategy still utilizes the Northern and Southern routes. However, overlap of the routes, as seen in the Atlantic Strategy, is less feasible due to the geography of the Pacific structure. Therefore, the "Plus" alludes to our refinement of the strategy and enhances the original "2-Lose-1" strategy by mitigating choke points that might hinder flow.

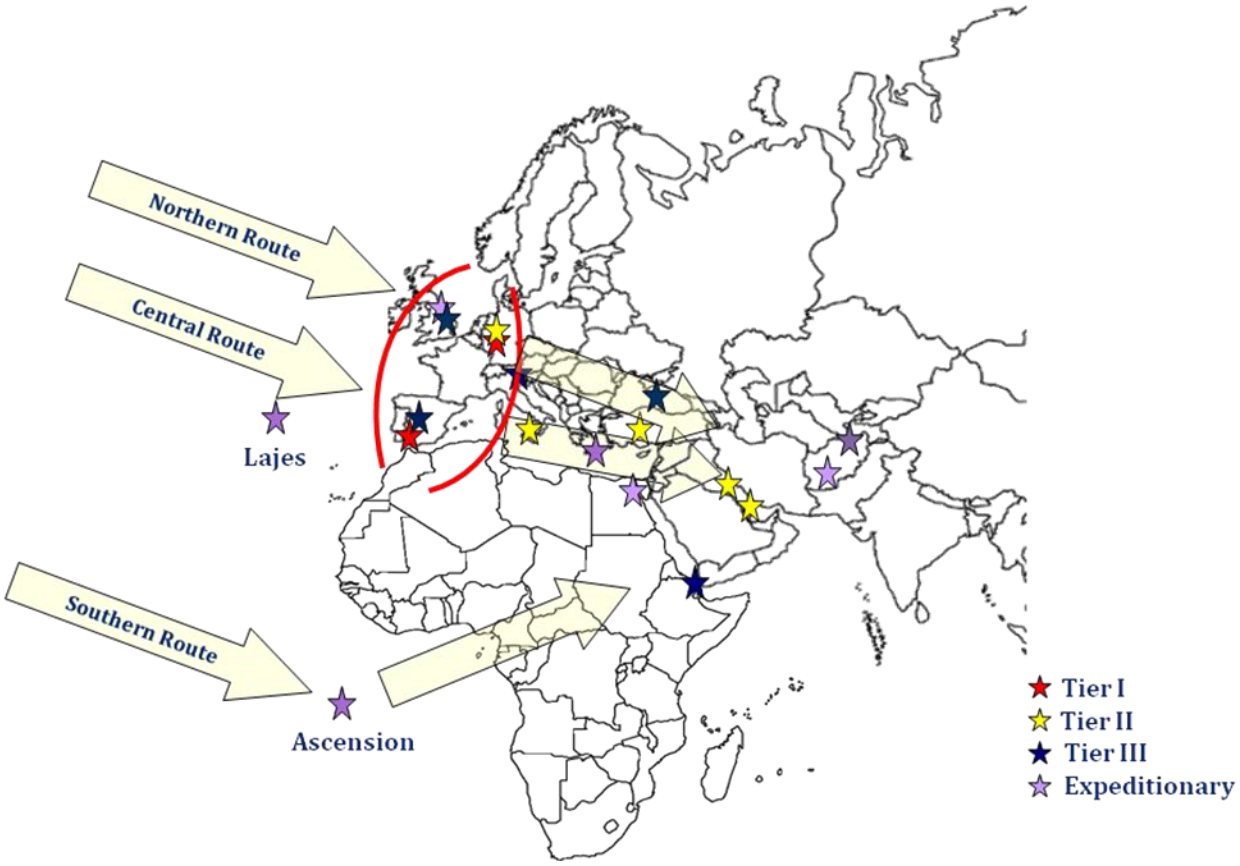
Next, in an effort to facilitate the flow through the route structure mentioned above, capabilities at each en route location must be identified. Maintenance and aerial port capabilities are combined into general definitions to capture the full spectrum of required logistics capabilities. These definitions are categorized into a four tier system. First, Tier I locations have both major maintenance capability and full hub/spoke distribution service aerial port capability (may include full break-bulk operations and robust passenger handling). Second, Tier II locations are capable of minor maintenance, minor passenger handling, and trans-load, break-bulk, flightline-to-truck dock "customer receipt" aerial port services. Next, Tier III locations have limited maintenance and limited aerial port services, to include passenger handling and upload/download capability only. Finally, Expeditionary locations are stood up by deployed personnel to provide limited maintenance, and aerial port capability, that can be sized as necessary to full distribution service capability or limited "customer receipt" capability. A table of proposed en route locations can be found at page 31 of the white paper.

It is important to note that these definitions are general in nature and only meant to provide a guideline for determining relative size. In fact, the maintenance and port capabilities at any given location may not neatly fall into corresponding tiers. For instance, locations like Aviano AB would be classified as a Tier III for maintenance, but a Tier II for port capabilities.

For a strategy to succeed, it must be implemented at the operational level, which implies occasional subordination of operational efficiencies to the greater strategic need and desired long-term effect. What we have learned over the years is that if locations aren't used, they will be lost, either to budget cutting measures or to host nation designs. To secure access to locations required during contingencies or surges, we must be willing to operate in a distributed manner, even if this means a loss of day-to-day efficiency. Finally, the strategy cannot be static. It must adjust and adapt to changes in the National priorities, political landscape, and fiscal constraints. To that end, we recommend that every two years, the command undertake a comprehensive review of the en route strategy.

range, two-thirds of the continent can be accessed. Currently, the airfield has limited mobility aircraft servicing capability. An enlarged parking ramp and freight handling capability would be required to establish a Tier III capability as we envision. (Should analysis of the evolving requirements (to include responsiveness, timeliness, and MHE/personnel required to provide the needed capability) dictate and political dialogue permit an expeditionary location on the west coast of Africa, options do exist and will be evaluated.)

The following map graphically depicts the Atlantic "three-use-two" route strategy described above:



12. SOUTH AMERICAN STRATEGY:

Including South America in a global en route strategy accomplishes two results: it helps achieve the regional engagement strategy and assists with the mobility routing to Africa. Unfortunately, a South American engagement strategy that tasks airlift assets is not available. Until recently, security concerns in South America have focused on the counter-narcotics mission. That mission has not required the use of strategic airlift in its prosecution.

Recently, USSOUTHCOM has become interested in establishing a location on the South American continent that could be used both for counter-narcotics operations and as a location from which mobility operations could be executed. Consequently, with the assistance of AMC

and USTRANSCOM, USSOUTHCOM has identified Palanquero, Colombia (German Olano Airfield (SKPQ)), as a cooperative security location (CSL). From this location, nearly half of the continent can be covered by a C-17 without refueling. Should suitable fuel be available at the destination, a C-17 could cover the entire continent, with the exception of the Cape Horn region in Chile and Argentina. Until such time that USSOUTHCOM establishes a more robust theater engagement plan, the strategy to place a CSL at Palanquero should be sufficient for air mobility reach on the South American continent.

In conjunction with the aforementioned CSL, Puerto Rico and the US Virgin Islands offer viable en route locations capable of supporting theater mobility requirements. Both San Juan and Henry Rohlsen International Airports have resident Air National Guard facilities that currently support mobility operations into South America. Puerto Rico and the US Virgin Islands have two of the largest sea ports in the Caribbean, minutes away from their respective international airports facilitating intermodal operations. Neither location requires international agreements, customs, or diplomatic clearances for overflight. These two airfields offer ideal hub locations to support emerging contingency and humanitarian relief operations. Finally, AMC should work closely with USTRANSCOM to establish contracts or agreements with commercial concerns for contingency fuel and aircraft support at airfields in more southern reaches of the continent.

Previously, we discussed using Ascension Island as a portal for access to the African continent. Routing to Ascension, though, requires an intermediate fuel stop and that stop would be in the Caribbean or South American region. The distance from Charleston AFB to Ascension is over 5,100NM, well outside an unrefueled C-17's range. In the past, AMC aircraft on their way to Ascension stop in Antigua (V.C. Bird International) to refuel. The distance from Charleston AFB to Antigua is nearly 1,600NM with the remaining distance to Ascension being cut to 3,600NM.

USSOUTHCOM, in an attempt to assist with access to Africa, has postulated that Cayenne, French Guiana, could serve as a possible CSL for an intermediate fuel stop between the CONUS and Ascension. The distance from Charleston AFB to Cayenne is 2,600NM and the remaining distance to Ascension is only 2,400NM. USSOUTHCOM has also considered access to the airport at Recife, Brazil. A C-17 could depart from this location and, provided fuel is available when they land, cover approximately the same area as an unrefueled C-17 from Ascension. However, the political relationship with Brazil is not conducive to the necessary agreements. Furthermore, Recife is 4,100NM from Charleston AFB placing it just outside the point-to-point distance for a C-17. Therefore, we recommend that USSOUTHCOM continue to pursue access to the airfield at Cayenne, French Guiana.

13. PACIFIC STRATEGY:

As discussed, the limited availability of real estate in the Pacific allows few options for en route locations. Fortunately, the location and political affiliation of Pacific islands provide en route strategy options to prevent reliance on a single route to the warfighter.

This fact was clearly recognized in 1999 when the PERISC first postulated the "2-Lose-1" route strategy. Recognizing that one of the routes may be temporarily unavailable due to inclement weather, the PERISC recommended sizing the locations on the two routes such that one route could handle the temporary surge of the other being unavailable. Given the limitations of the region, we agree that this strategy is sound and should be continued.

However, since 1999 the focus areas in this region have expanded to include the Indonesian islands as a source of political turmoil and geologic instability. Furthermore, the existing en route locations are subject to refinement to make the system more responsive and capable. Consequently, we now refer to the strategy in this region as the "Two Route Plus" strategy. The strategy still refers to two primary routes, the Northern and Southern routes. The "Plus" alludes to the fact that our refinement of the strategy enhances what the PERISC originally proposed in 1999.