The Air Force has begun to reorganize into an Expeditionary Aerospace Force (EAF). The main thrust of that reorganization is to replace the forward presence of airpower with a force that can deploy quickly from the continental United States (CONUS) and other peacetime beddown locations in response to a crisis, commence operations immediately on arrival, and sustain those operations as needed. The success of the EAF will be largely dependent upon the effectiveness of the design of the Agile Combat Support (ACS) and mobility systems.

Early EAF implementation discussions of support resources focused on deploying unit preparation with the intent of paring unit resources to enable the deploying forces to be “light, lethal, and self-contained,” or at least self-sustaining for the first few days. As our research pointed out, however, most resources that are needed to initiate and sustain combat operations, such as munitions, fuel, and War Reserve Materiel (WRM: portable shelters, ground support equipment, vehicles, etc.), are not unit-level resources. These resources are heavy and usually positioned forward and managed by the respective Numbered Air Forces that support specific CINCs (Commanders in Chief). Furthermore, of the resources that a unit deploys, most of the weight and volume is associated with support equipment, such as lightalls, jammers, and bobtails. Our analysis of these resources leads us to the following conclusion: With today’s support processes, policies, and technologies, deploying even a modest fighter-based combat force to a bare base will require several days of development before the Forward Operating Location can sustain a high flying tempo. If the Air Force is to employ immediately after
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deploying quickly, these resources must be provided by forward prepositioning, either at a base or at a regional support facility.

This report presents a vision of the future ACS/mobility system and addresses several options for meeting munitions, WRM, fuel, maintenance, and other support resource requirements needed for the variety of potential and uncertain scenarios that the Air Force may face. The report provides examples of how support options change with alternative employment scenarios and support technology, policies, and practices. Our goal is to foster discussion about a vision of the future ACS and mobility system that is robust in a number of potential scenarios. Developing such a vision is a complex undertaking requiring a formal integrated ACS and mobility planning process, including continuous review of the ability of ACS and mobility postures to meet defense needs as they evolve. This report also presents a framework for addressing these planning needs.

Our research indicates that the ACS/mobility system of the future will have five components:

1. Forward Operating Locations (FOLs). Some bases in critical areas under high threat should have equipment prepositioned to enable rapid deployments of heavy combat aerospace packages. They might be augmented by other, more austere FOLs that would take longer to spin up. In other parts of the world, the FOLs might all be of the second form, if conflict is not likely or humanitarian missions will be the norm.

2. Forward Support Locations (FSLs). FSLs are sites near or within an area of responsibility (AOR) for storage of munitions for WRM, or sites for consolidated maintenance and other support activities. The configuration and specific functions of FSLs depend on their geographic location, the threat, and the costs and benefits of using current facilities. Western and Central Europe are today stable and secure, and it may be desirable to use FSLs in these regions to support operations in Southwest Asia (SWA) or the Balkans (as was done to some extent in Operation Noble Anvil in Kosovo).

3. CONUS Support Locations (CSLs). CONUS depots are one type of CSL, as are contractor facilities. Other types of CSLs may be analogous to FSLs. Such support structures are needed to support CONUS forces should repair capability and other activities be
removed from units. These activities may be set up at major Air Force bases, convenient civilian transportation hubs, or Air Force or other defense repair and/or supply depots.

4. A transportation network connecting the FOLs and FSLs with each other and with CONUS, including en route tanker support. This is essential; FSLs need assured transportation links to support expeditionary forces. FSLs themselves could be transportation hubs.

5. A Combat Support Command and Control (CSC2) system to coordinate the system, organize transport and support activities, and allow the system to react swiftly to rapidly changing circumstances.

The configuration of these components depends on numerous factors. The system design will evolve as previously essential features become unneeded and are traded for other, newly important features. Therefore, a strategic planning framework is needed to help inform support system decisions. This framework needs to integrate ACS and mobility decisions and support global and evolving planning. A global perspective is needed because the combination of cost constraints, political considerations, and support characteristics may dictate that some support for a particular theater be provided from facilities in another. The configuration of FOLs and FSLs, in turn, is a critical input in sizing the airlift fleet and in setting up its refueling infrastructure to support all theaters.

Strategic planning must also evolve. The new security environment includes small, short-notice contingencies and continually changing threats. Geographic areas of critical interest will change over time, as will the threats within them. An expeditionary ACS/mobility system targeted to today’s situation would be oriented toward SWA and Korea, but within a decade those regions could be at peace. In addition to the political changes, support processes and technologies will also change, as the Air Force moves to an expeditionary footing and directs its research and reengineering efforts to reducing support footprints while maintaining effectiveness. Over the next ten years, we expect to see many examples of process and technology changes, as well as political shifts, that will force reevaluations of the ACS/mobility system configuration.
In the end, these two imperatives require effective centralized planning, in which cost, political, and effectiveness tradeoffs are made for the system as a whole to ensure that each theater is appropriately protected and supported. We present a strategic planning framework based on employment-driven modeling that can be used to meet these needs. This framework needs to be embedded within the strategic ACS/mobility planning process to address the types of tradeoffs and ACS/mobility designs needed for the EAF.