RESEARCH SUMMARY

Organizing and Training Airfield Operations Capabilities for Emerging Expeditionary Operations

Potential Courses of Action

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ISSUE

Airfield operations (AO) officer and enlisted career fields provide air traffic control; airfield management; and radar, airfield, and weather systems services for the U.S. Air Force (USAF), in-garrison and deployed, during peacetime and contingencies. The AO community faces three challenges in adjusting to a new strategic environment. First is the introduction of the Dynamic Force Employment (DFE) concept involving a transition from centralized, unhardened infrastructure to smaller, dispersed, resilient, adaptive basing, which could increase the demands for AO services. Second, the USAF is developing force employment ideas that are grouped under the term Agile Combat Employment (ACE), which will involve quickly dispersing and clustering forces at different locations in a way that will allow the United States to increase the survivability of its forces.[1] Finally, to reduce the strain and prepare to respond to near-peer adversaries while incorporating DFE and ACE concepts, the USAF is implementing a new Air Force Force Generation approach (AFFORGEN).

As these concepts mature and evolve, it is important for the USAF to determine whether the demands for AO in a changing strategic environment can be satisfied. The objective of this project is to identify ways to enhance the ability of the AO career fields to respond to the needs created by the DFE concept and the USAF implementation of ACE.

APPROACH

The research team on this project used three research streams. A review of USAF and joint documents related to the AO career fields provided background for AO doctrine and missions. Interviews, informal discussions, and other interactions with a variety of subject-matter experts illuminated current challenges for accomplishing

1 The FY 22 Department of the Air Force Posture Statement states "This new method of operating will allow the United States to confuse the enemy and strike at a time and place of our choosing with minimal risk. The ability of ACE to sustain combat operations through persistent logistics has already been validated through multiple exercises across both the Pacific and European theaters" (John P. Roth, Acting Secretary of the Air Force; Charles Q. Brown, Jr.,Chief of Staff, U.S. Air Force; and John W. Raymond, Chief of Space Operations, U.S. Space Force, *Department of the Air Force Posture Statement Fiscal Year 2022*, Department of the Air Force presentation to the Committees and Subcommittees of the U.S. Senate and the House of Representatives, 1st Session, 117th Congress, prepared testimony released May 7, 2021, p. 13).

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AO missions and highlighted the potential impact of new demands on AO that could result from DFE and ACE approaches. Finally, using AO personnel data and current approaches to ACE concepts, simple R-based tools were developed to analyze the ability of AO personnel to meet future demands.

KEY FINDINGS

Key findings fall in two areas:

- The supply and demand for AO capabilities:
  - Viewing AO capabilities through supply and demand lenses is necessary for the AO community to organize, train, and equip to satisfy expected mission demand.
  - Even if all AO demands were well understood, there could be challenges in satisfying them. The USAF has four "special" sources of airfield operations expertise—Operational Support Squadrons, contingency response groups, the 53rd Air Traffic Control Squadron, and ten Air National Guard air traffic control squadrons. The relationships among these organizations are not well understood, nor is it clear how their services are requested and provided.
  - AO equipment is outdated and may not be able to meet the requirements for hub-and-spoke operations as envisioned by ACE concepts of operations.
- Management of AO resources:
  - New approaches to managing personnel resources are needed.
  - The new AFFORGEN model may provide an opportunity to posture AO capabilities from all AO sources to satisfy emerging DFE and ACE requirements.

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RECOMMENDATIONS

The table below shows recommended courses of action associated with the key findings.

RECOMMENDED COURSES OF ACTION

Observation	Recommended Course of Action
Supply of and Demand for AO Capabilities	
Viewing AO capabilities through supply and demand lenses is important.	*Designate a champion to monitor overall demand* The champion or proponent—an office or organization—would track, quantify, analyze, prioritize, and publish demands for the AO community.
Even if all AO demands were well understood, it is not always clear how decisions are made to align available supply with demand.	*Develop analytic tools and capability* Until the USAF understands the overall demands—as monitored by a designated champion—it will struggle to align available supply to the demands. *Identify decision authority* A decisionmaking authority needs to be established to determine the priority for filling AO capability needs. We recommend that the Headquarters Air Force Functional Area Manager fill this role.
Deployable AO equipment is outdated and may not be appropriate for hub-and-spoke operations.	*Align active-duty units with Air National Guard air traffic control units to make more efficient use of existing equipment, and coordinate with the Air Force Flight Standards Agency to procure common equipment across services* Aligning equipment across components would improve the utilization of current equipment; new deployable equipment will still be needed to provide required capabilities of the hub-and-spoke concept within ACE.
Management of AO Resources	
New approaches to managing personnel resources are needed.	*Consider establishing active-associate units at high-priority locations in the continental United States (CONUS)* The Air Force should explore approaches to using Air National Guard personnel to replace active-duty personnel when they are deployed from key operating locations, such as Air Mobility Command bases. Innovative approaches to using civilian personnel and contractors at CONUS locations during contingencies should also be considered.
The new AFFORGEN model may provide an opportunity to leverage AO capabilities to satisfy expeditionary requirements.	*Fit the AO community into the AFFORGEN model as a capability* Within AFFORGEN, supply prioritization and equipping strategies (in previous recommendations) can be better leveraged to posture the AO community for contingency operations that incorporate DFE and ACE.

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