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Defense Primer: Agile Combat Employment (ACE) Concept

To inform and shape its planning, the U.S. Air Force (USAF) has developed an operational concept known as *Agile Combat Employment (ACE)*. According to the Air Force, ACE is a “proactive and reactive operational scheme of maneuver” to enable U.S. forces to “increase survivability while generating combat power.”

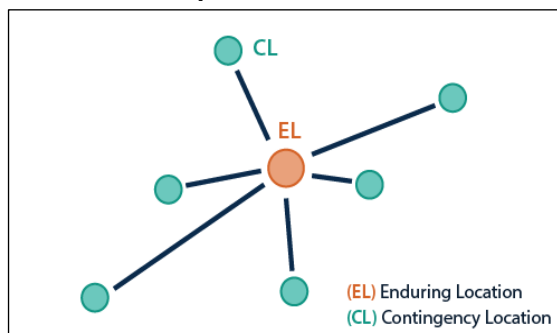
Background

An operational concept is a broad idea intended to guide the organization and employment of military forces. The Air Force describes ACE as a response to recent geostrategic developments, including post-Cold War changes to U.S. global posture, advances in adversaries’ weapons systems, and domestic fiscal and political constraints. DOD has also characterized ACE as part of its overall approach to increased competition from Russia and China. Other military services have developed similar concepts (e.g., the Army’s Multi-Domain Operations, the Navy’s Distributed Maritime Operations, and the Marine Corps’ Expeditionary Advanced Basing Operations).

ACE Overview

The central idea of ACE is the distribution and dispersal of units and capabilities across multiple and varied sites. Air Force Doctrine Note 1-21 (AFDN 1-21)—the primary, fundamental explication of ACE that is publicly available—states that the concept “shifts operations from centralized physical infrastructures to a network of smaller, dispersed locations that can complicate adversary planning and provide more options for joint force commanders.” Some analysts have characterized it as a “hub-and-spoke” approach, with an *enduring location* (e.g., an existing U.S. or allied airbase) serving as a hub for a number of *contingency locations* (e.g., civilian airports, austere or standalone airstrips), between which aircraft can be shifted and from which missions can be launched (see **Figure 1**).

Figure 1. Hub and Spoke



Source: CRS analysis of Air Force Doctrine Note 1-21, “Agile Combat Employment,” August 23, 2022.

Core Elements

In AFDN 1-21, the Air Force characterizes ACE as consisting of “five core elements.” These are (1) posture; (2) command and control (C2); (3) movement and maneuver; (4) protection; and (5) sustainment. The five core elements enable ACE’s operational framework and are each discussed in brief below.

Posture. According to AFDN 1-21, “posture is intrinsically tied to all other elements. It is the starting point from which subsequent actions take place.” It entails securing sites and facilities (e.g., runways, parking areas), as well as pre-positioning equipment and supplies, and distributing or redistributing forces. For overseas locations, ACE posture objectives may include negotiating access, basing, and overflight rights with foreign governments.

Command and Control (C2). Compared to more centralized planning paradigms, ACE may create more complicated C2 requirements for U.S. personnel and weapons systems, particularly when operating from (or moving between) contingency locations. AFDN 1-21 highlights the importance of redundant and resilient C2 methods for ACE and the broader DOD Joint All Domain Command and Control (JADC2) initiative is expected to play a role in meeting ACE-specific C2 requirements.

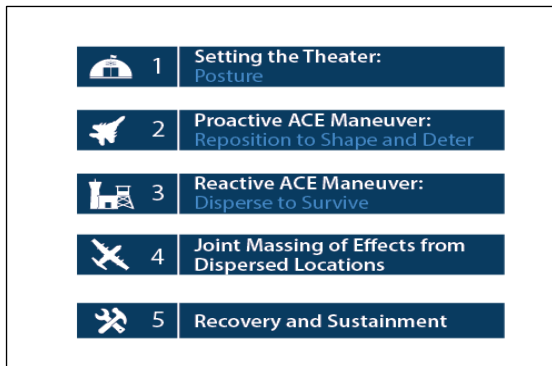
Movement and Maneuver. According to AFDN 1-21, ACE-specific movement and maneuver requirements may entail the “movement of forces to predetermined, dispersed locations and flow of dispersed forces back to an enduring location” before or during combat operations.

Protection. This element involves countering threats to operating locations, personnel and weapons systems, and logistical capabilities or assets. Protection, in the context of ACE, would vary by location, but may involve the integration of both passive and active defenses to counter threats in domains such as ground, sea, air, space, and cyberspace.

Sustainment. The Air Force states that “sustainment plans should focus primarily on aircraft sortie generation” but should also include the ability to execute C2 and base operating support functions, which include providing maintenance, dining, lodging, and medical support to forces.

Visualizing and Executing ACE

Although the application of ACE may differ by mission set and location, in further explication of its doctrine, the Air Force has offered help visualizing the ACE concept in terms of five phases. The five phases may not be sequential but provide a general framework for ACE operations and incorporate and/or align with the ACE core elements allowing commanders flexibility and fluidity during dynamic operations (see **Figure 2**).

Figure 2. Visualizing ACE

Source: Information presented in Air University, “Visualizing Agile Combat Employment.”

In the first phase (“Setting the Theater”), the Air Force identifies and prepares locations and equipment for use. In the second phase (“Proactive ACE Maneuver”), the Air Force positions and distributes personnel and assets to anticipate or influence adversary actions before they occur (as an example of this in practice, some Air Force officials have pointed to Ukraine’s dispersal of aircraft immediately prior to Russia’s 2022 invasion). The third phase (“Reactive ACE Maneuver”) is intended to respond to “observed, perceived, anticipated or realized enemy aggression,” and may involve redistributing forces for optimal survivability. The fourth phase (“Joint Massing of Effects”) entails coordinating the employment of combat assets (including allied/partner forces) to maximize offensive impact across all domains from dispersed locations. Finally, the fifth phase (“Recovery and Sustainment”) involves repairing equipment and infrastructure to continue generating combat air power.

Relationship to other Air Force Initiatives

Multi-Capable Airmen. The Air Force has identified its initiative to train and develop multi-capable airmen (MCAs) as a key enabler for ACE. MCAs are individuals trained in additional tasks outside their primary career field (e.g., an MCA might work as an aircraft maintainer, but also be capable of providing security or communication support). The Air Force intends to utilize small teams of MCAs to reduce demands on servicemembers and personnel, as well as increase agility. In the context of ACE, MCAs may enable the execution of functions such as C2, aircraft operations, and base support at austere locations with limited infrastructure and personnel.

Force Generation. In parallel with ACE development, the Air Force is introducing new models for organizing, training, and equipping forces to conduct ACE missions. The new force generation model known as the Air Force Force Generation or AFFORGEN “establishes a more “structured and predictable cycle to better prepare Airmen for distributed, high-end combat operations.” Additionally, the Air Force is experimenting with Air Task Forces (ATFs) to “generate more efficient integrated deployable Units of Action.” ATFs package together teams of airmen that will work, train, and exercise together throughout the AFFORGEN cycle. ATFs then deploy together, ideally ready to operate as a team which may help prepare airmen to support the demands of ACE operations.

Great Power Competition. In 2022, the Air Force identified seven Department of the Air Force (DAF) investment priorities, or “Operational Imperatives” (OIs) necessary to maintain its “competitive” advantage against peer threats like China. ACE is nested under the “Resilient Basing” OI. The Air Force has announced plans to “reoptimize for great power competition,” including by restructuring unit organizations; conducting large-scale exercises and ACE-specific training; revising processes to ensure the availability of aviation spares and weapon systems; emphasizing C2, communications, and “battle management”; and creating new MCA training initiatives—all of which may support the implementation of ACE. The Air Force also continues to expand ally and partnership agreements to secure access, basing, and overflight options and participates in exercises to increase integration and foster partnerships.

Resourcing and Legislative Activity

The DAF FY2025 Presidential Budget request identifies \$538 million for ACE, \$400 million of which is requested for line items in the Operation & Maintenance, Air Force account to “set the theater, provide agile communications, and develop mission-ready Airmen.” Other funding requests may be found in Military Construction, Procurement, and Research and Development Air Force accounts. The FY2025 DAF Unfunded Priority List includes \$266.3 million “to execute theatre-wide Agile Combat Employment exercises.” The FY2025 Pacific Deterrence Initiative and the European Deterrence Initiative request include ACE-related funding. Additionally, the Senate Armed Services Committee report accompanying the FY2024 National Defense Authorization Act directs the Air Force to report to the defense committees on various aspects of ACE development and implementation.

Considerations for Congress

Potential considerations for Congress regarding ACE include (but are not necessarily limited to) the following:

- Does ACE adequately support Congress’s assessment of national strategic and operational priorities? In Congress’s view, is ACE appropriately aligned with other services’ operational concepts and support requirements (e.g., Army base defense)?
- In Congress’s view, are DAF budgets and programs appropriately resourced to implement ACE? Should Congress increase, decrease, or keep constant relevant Air Force appropriations?
- Are there political or diplomatic risks attendant on ACE implementation, particularly given the role played by bases and other infrastructure located in foreign countries? In Congress’s view, are DAF and DOD taking appropriate steps to ensure access would be granted under wartime circumstances?

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