



AIRPOWER RESEARCH INSTITUTE
(CADRE/AR)

The Air Expeditionary Force in Perspective



ARR Occasional Paper No. 1, 15 January 99

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FOREWORD

Expeditionary operations have been conducted by military organizations for centuries; airmen have embraced expeditionary air forces throughout the last century. Our preliminary survey of the subject identified a broad range of historical examples that offer useful lessons for airmen seeking to better understand the challenges of employing expeditionary air forces at the turn of the 21st century. Taken from an earlier day, some examples involve ground operations entirely devoid of an air element. But even in cases where the air element is lacking, a host of significant factors relevant to contemporary airmen is readily apparent. One thinks, for example, of issues involving intelligence, logistics, force mix, force protection, serial taskings, operational innovation, and many other factors.

In a word, our survey of past experience points up many instructive lessons for 21st century airmen seeking to come to grips with planning and conducting expeditionary operations. Herewith for your consideration are some cases in point. We would welcome an opportunity to conduct a more intensive assessment of this crucial subject.¹

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1. Air Force Leaders Promote AEFs

Expeditionary Insights

- ◆ 1920, Gen. Billy Mitchell conceived of “brigades” (all types of aircraft) trained and prepared for hemisphere and overseas missions.
- ◆ 1940, Gen. Hap Arnold organized “air forces” (all types of aircraft) for hemisphere missions—later numbered air forces for overseas.
- ◆ 1944, Gen. Hap Arnold organized “air commando” units (all types of aircraft) for expeditionary missions in China, Burma, and India.
- ◆ 1953, Gen. Glenn Barcus, TAC Commander, experimented with Composite Air Strike Forces for quick response to distant missions.
- ◆ 1955, Gens. Nathan Twining and O.P. Weyland organized Nineteenth Air Force (all types of tactical aircraft) for short notice overseas deployment.
- ◆ 1990s Gen. Tony McPeak formed Composite Wings (mixed aircraft operating together) for effective force packaging.
- ◆ 1994, Gen. John Jumper, commander of ACC’s Ninth Air Force, circulated idea of Air Expeditionary Force (mixed aircraft, quick deployment force).
- ◆ 1998, Gen. Mike Ryan introduced idea of Expeditionary Air Forces (a series of AEFs composed of many aircraft types) for global missions.

Operational History

The idea of packaging air units for distant missions appears very early in the air century. General Billy Mitchell, fresh from his command of **composite air forces** in France, suggested that air forces in “**Brigades**” composed of bombardment, pursuit, attack, and observation units would form an “efficient strategical reserve” to fly quickly to any distant threat to the nation’s borders. In the early 1940s, with the outbreak of war in Europe, General H. H. Arnold organized the numbered air forces, first for protection of the hemisphere, later for global employment. Well into the war, Arnold organized a series of **commando groups**, equipping them with a variety of aircraft to facilitate independent operations in remote regions. The difficulties experienced in deploying combat-ready tactical airpower in response to the 1950 Korean crisis encouraged TAC Commander, General Glenn O. Barcus, and future Chief of Staff, Nathan Twining, and TAC commander, O. P. Weyland, to organize **quick reaction tactical forces** for employment in global hot spots. Preoccupation with the war in Vietnam caused the demise of these early **composite strike forces**. General Merrill McPeak saw a need to revive them even before the Gulf War in 1991. He experimented with **composite forces** with several types of aircraft operating at one facility. The only one of these units still operating is the 366th Wing at Mountain Home. General Jumper organized a temporary, mixed-aircraft force that, with a small footprint, could react to quickly developing missions. These **AEFs** provided economical air task forces for short duration missions. The high operational and personnel tempo of air units persuaded the current CSAF to reorganize the force into a series of **10 AEFs**, that could take turns responding to lighter-end missions that seem to dominate national strategy at the turn of the century.

2. The Roman Expeditionary Legions

Expeditionary Insights

- ◆ Series of smaller units promoted maneuverability; combined for strength.
- ◆ Flexibility in equipment, tactics, and organization.
- ◆ Light forces and effective transport promoted mobility. *Think of air power in the context of Roman roads and ships.*
- ◆ Legion was composed of infantry, cavalry, engineers, etc., for independent operations.
- ◆ Professional forces trained and fought together.
- ◆ Superior technology, organization, and training.
- ◆ Asymmetric power: win fights even when outnumbered.
- ◆ Joint support with Roman navy and other auxiliaries; coalition or allied support as needed.
- ◆ Fortified encampments built nightly while on a maneuver.
- ◆ Special tailored forces for specific missions.

Operational History

Defeats in the field and the subsequent burning of Rome in 390 BC proved that the phalanx was too rigid to defeat loosely-organized barbarians. The Romans reorganized into a large number of smaller units that enabled the commander to maneuver his forces during the battle. To cover the gaps between units and to extend the lethal range of the soldiers' weapons beyond the reach of a spear, the Romans replaced their long thrusting spears with shorter, throwing spears (javelins). In order to throw these effectively, the troops had to stand further apart. At close range, the Romans relied on their short swords and this open formation.

To control these smaller units, the **Romans created a new organization**: the Legion. Each Legion had a set organization of about 5,000 infantrymen along with an organic cavalry contingent. What made them truly **independent organizations**, however, were the various specialized troops, who not only did the staff and maintenance work but also built and operated catapults and provided the required engineering expertise. Over the next three hundred years, the Romans improved their weapons and tinkered with their organization. The final critical reform took place under Marius around 100 B.C. when Rome dropped the property requirement for joining a legion and it became a **force of long-service professionals**. These men trained longer and harder than their predecessors and were more willing to serve on extended campaigns far from Rome. With superior equipment, organization, and training, the Roman Legions were consistently able to fight outnumbered, and win, against all adversaries, from Scotland to the Sahara.

The Legions, however, rarely operated alone. Instead, they were the core of expeditionary forces fleshed out by auxiliaries and allies who provided most of the cavalry, archers, and light troops. These forces substantially cut the demands made on Rome's limited manpower and were particularly critical for meeting **asymmetrical threats** (e.g., small hit-and-run attacks by cavalry and archers). Thus auxiliaries and allies enabled Roman commanders to build **carefully tailored task forces** to meet specific threats and maximize the combat power of the small number of legions.

Focus on the equipment, organization, and battlefield successes of the Roman Legion should not distract us from its **extraordinary strategic mobility**. The Legion moved light and fast, and also used the Roman navy and the extensive network of excellent roads to achieve speeds unsurpassed until the age of steam. Marius is credited with requiring his troops to carry all of their own equipment, and while this made them grumble about being "Marius' mules," it forced them to **travel light** and made them independent of the baggage train of slow, vulnerable ox-carts that slowed some of their enemies. Even travelling light did not negate **force protection** issues. On a march the legions built a fortified encampment each night.

3. Napoleon's Expedition to Egypt: 1797

Expeditionary Insights

- ◆ Naval superiority was able to contain, and then defeat a superior ground force.
- ◆ The failure to properly equip forces can result in defeat and disaster.
- ◆ Mobility advantages help initial stages.
- ◆ There are great weaknesses without friendly forward bases.
- ◆ The enemy can innovate and adapt over time.
- ◆ Force protection problems increase with local uprisings.
- ◆ Danger of allowing domestic issues to drive military expeditions.

Operational History

In 1797, although exhausted by a long and indecisive war in Europe, the French launched a campaign in Egypt. They believed that they could rally the locals to their side due to the chronic misgovernment and that the occupation of Egypt would weaken British trade in the area as well as provide a springboard for an attack on the jewel of the British Empire: India. Domestically, Napoleon saw this as a chance to increase his prestige (to emulate his hero Alexander the Great) while the Directory saw this as a way to get the ambitious and dangerous Napoleon out of Europe.

In May 1798 Napoleon departed France in great secrecy with a **large expedition** consisting of hundreds of ships, about 40,000 troops, 1,200 horses, and 161 guns. The small number of horses was critical, limiting the numbers of guns and cavalry the French could field. In contrast, Napoleon would win overwhelming victories with massed artillery, cavalry charges, and then fearsome cavalry pursuit in Europe. Lacking horses, Napoleon was **denied operational mobility**, a critical advantage.

The Royal Navy was taken by surprise when the French headed eastward, not toward Great Britain, allowing the inferior French navy to deliver the expedition without difficulty to Egypt. The French easily swept aside local opposition and won a major and lopsided victory against greater forces in July 1798 at the Battle of the Pyramids. The decisive action, however, was a naval battle the next month when Nelson surprised and annihilated the anchored French fleet in the Battle of the Nile. Napoleon was cut off from the outside. The question now was could Napoleon be defeated and what could he achieve in isolation. **Egyptian civilians did not warm to French rule**; on the contrary, they resented and rose up against it. There were outside threats as well. Early in the next year the French pushed northward to prevent a Turkish assault on Egypt. But while the French won victories, they could not overcome the city of Acre. Again British **naval superiority** was crucial. A relatively small Royal Navy force captured Napoleon's siege train and delivered it to the defenders of the city. The lack of French heavy artillery, a few British advisors, outside supplies, and fire support delivered by the British navy, helped the city's defenders withstand the two-month siege. (The French army was also ravaged by disease.) After a difficult march, Napoleon did get the bulk of his force back to Egypt, and although he won one further victory in Egypt, he abandoned his army and returned to France in October 1799. Even without Napoleon, and cut off from outside supply, **the French army was superior** to its foes **but strategically ineffective**. It was able to hang on for almost two years before surrendering in June 1801.

4. Napoleon's Serial Force Organization: 1800s

Expeditionary Insights

- ◆ Flexibility has always been a key attribute of successful military organizations.
- ◆ Effective change requires rethinking and redoing, not one, but many elements.
- ◆ Mobility can be gained through equipment, tactics, and organization.
- ◆ Mobility is of highest importance even to ground forces.
- ◆ Similarity of serial force structure.
- ◆ Effective communications and innovative subordinates.
- ◆ Force protection more sensitive for individual divisional forces.

Operational History

Napoleon Bonaparte was a brilliant commander who won great victories with the **fastest moving** and the most **flexible army** in Europe. European armies traditionally organized their infantry, artillery, and cavalry into separate regiments and only brought them together when assembling an army for a campaign and then moved them forward *en mass*. This method provided excellent **force protection** because the entire army could immediately support any part of the army that was attacked. However, it limited the army to that of moving on one road supported from one forward base, thus restricting army speed, logistics, and size. Moving on a single road also made it very easy for the enemy to monitor the army's progress and thus made strategic surprise almost impossible.

In contrast, the French broke their army into **divisions composed of infantry, artillery and cavalry that could move and fight on their own**. To improve command and control, they inserted a corps headquarters between the army commander (Napoleon) and the divisions. This new organization enabled the French to advance along many roads, supported from several forward bases, and thus support larger forces moving faster than their enemies. This enabled Napoleon to frequently **surprise and overwhelm** his enemies. The **logistical, mobility, and intelligence advantages** (spies everywhere) of this new organization, however, came at the price of **force protection**. Divisions were designed to be strong enough to hold off the enemy's entire army for several hours while a corps (several divisions) could hold off the enemy's army for a full day. The attacked division would be reinforced by the rest of its corps and before the enemy could overwhelm the corps, it would be attacked from different directions by several other corps of the French army, marching to the sound of the guns to converge on the enemy force. Therefore even if the entire enemy army attacked a single French division, the French could prevail.

The success of this system depended on **effective communications** and **innovative subordinates**. By carefully selecting and developing division and corps commanders, Napoleon had forces upon which he could rely even when they were out of his sight. Though he had no novel communications technology, he developed a system of written orders and reports that enabled him to coordinate the movements of his widely scattered forces. Using the developed road net of Western Europe and fast moving, enthusiastic troops, aggressive French armies out maneuvered, out marched, and frequently surprised, slower moving enemy forces.

5. Expeditionary Operations in Civil War: 1865

Expeditionary Insights

- ◆ Composite forces--infantry, cavalry, and artillery—desirable.
- ◆ Mobility--everyone on horses--for effective composite force.
- ◆ Asymmetric advantage with superior weapons.
- ◆ Superior intelligence won the situation.
- ◆ Innovation of operations required effective and independent leaders.

Operational History

The idea of forming composite expeditionary forces (then meaning a mix of infantry, cavalry and artillery) appeared early in the Civil War. Particularly famous was the “Hampton Legion” formed by the wealthy southern planter, Wade Hampton. Called to action for the Battle of Bull Run in July 1861, the test of moving a composite force simultaneously failed. Only parts of the force made it to Manassas; the cavalry and artillery were too “heavy” for available transport. Hampton’s legion was parceled out to other like units. Another southern effort, Thomas Cobb’s legion of three mixed arms, came to be considered too unwieldy and the legion was broken up after Antietam. Michael Corcoran formed a mixed legion for the north that lasted until he died at the battle of Cold Harbor. **Personality driven organizations** need to be considered in long campaigns.

Nevertheless, the concept of moving a composite force was revived late in the war by northern generals for a major expeditionary attack into the Deep South.

It was early spring, late in the war, March 1865, when Major General James H. Wilson led an expeditionary force into the heart of Dixie. He had a **forward base** on the Tennessee River near Gravelly Springs, Alabama, on a railroad line **logistically handy** to the north, as a place to gather, equip, and train his men. His **composite force** consisted of **highly mobile** infantry, cavalry, artillery, and engineers, all mounted. All carried the **latest in weapon technology**, Spencer repeating rifles. **Extensive intelligence** work provided assurance of **asymmetrical advantage** in number as well as equipment. This was especially important given the existence of an enemy force in the region under the famous Confederate cavalry general, Nathan Bedford Forrest. And a salient feature of Wilson’s invasion was **subordinate innovation**; the well-trained and experienced troopers were encouraged to adapt to the environment. Wilson divided his forces into three segments, each independent and self-sustaining. The force wrecked havoc throughout Alabama. It captured Tuscaloosa, Selma, Montgomery, and had even reached Columbus, Georgia when Lee’s surrender to Grant finally ended this strikingly effective expeditionary operation.

6. The Boxer Rebellion: China, 1900

Expeditionary Insights

- ◆ Logistics are always crucial to success.
- ◆ There is a price to be paid for using *ad hoc* coalition expeditions.
- ◆ Pre-existing combined command can be vital to success.
- ◆ Professional forces, well equipped, trained, and led, point to victory.
- ◆ Separate forces must be independent and self contained.

Operational History

The late 19th century was a time of rapid technological, political, and economic change that buffeted China. This led to growing anti-Western feeling and the development of anti-Western insurgencies. The largest and most important of these insurgents were called “Boxers” by Westerners. With government support, they grew bolder and, in the summer of 1900, cut key rail lines and attempted to kill all the westerners in China. The westerners barricaded themselves into whatever defensible places they could find and called for help. The largest and most famous of these besieged enclaves was in the diplomatic quarter of Beijing where 925 Westerners held out for almost two months until help arrived.

The first **international force** sent to relieve them was made up of troops and warships already in China. This force captured a base on the coast at Taku and rescued the Westerners besieged in Tientsin. However, its ground element was only 2,100 strong and it could not fight its way through the Boxer and Chinese government forces to Beijing. This failure set off a mad scramble to assemble a larger rescue force. The diverse force that broke through was almost 20,000 strong, including 2,100 U.S. troops.

The relief expedition succeeded because these troops were **more professional, better equipped, better trained, and better led** than their foes. The rescue forces arrived more disorganized and less well-equipped than it should have, and lacked a structure that could control and integrate the eight **mutually suspicious national contingents**. This slowed the rescue. The larger Chinese forces remained on the defensive and were unable to take advantage of the diverse rescue force. The inability of the allies to effectively integrate the activities of different national forces meant that **each force fought almost independently**, but fortunately all of the large national contingents had cavalry and artillery and thus could operate separately from the other forces. The three keys to the successful logistical support of the expedition were the secure base at Taku, the decision to follow the river and rely on junks rather than the damaged railroad, and the small size of the expeditionary force. This small, highly lethal force was both effective and supportable while a larger, more lethal, but less supportable one might have failed.

7. Disaster in Iraq, The Battle of Kut: 1916

Expeditionary Insights

- ◆ Mission creep is always a potential problem.
- ◆ Tactics must fit the specific technical, military, and geographic situation.
- ◆ An army well suited for one kind of war, can easily meet disaster in another.
- ◆ Accurate appraisal of friendly and enemy capabilities is always essential.
- ◆ Effective airlift requires more than aircraft, aircrew, and good intentions.
- ◆ Even the enemy's obsolete technology can deny victory.
- ◆ Communications and effective logistics underpin success.

Operational History

In late September 1915 a British expedition pushed up the Tigris River and defeated a larger Turkish army at Kut (about three-quarters of the way between the Persian Gulf and Baghdad). The British commander was then ordered to move toward Baghdad which he did, although protesting that his forces were inadequate and his supply lines tenuous. The High Command was seeking a cheap victory to counterbalance the stalemate on both the Western Front and in the Dardanelles, and believed that the concurrent Dardanelles Campaign would draw off Turkish troops. They also believed that their highly experienced, well disciplined professional army that had been so successful in colonial campaigns against primitive tribesmen on the northwest frontier of India could easily defeat superior numbers of Turkish troops as they had done thus far. British forces numbering about 12,000 advanced upstream to Ctesiphon, about 22 miles from Baghdad, where in late November they attacked an entrenched Turkish force of 18,000. This bloody battle cost both dearly, the British about one-third casualties and the Turks over half. But the Turks retained both their numerical superiority and positions, and forced the British to retreat to Kut where the commander chose to await relief.

The Turks besieged the British at Kut and tried to destroy them before relief could arrive. The besieged army withstood numerous Turkish assaults, but did little else. The British did **air drop in some supplies**, but while this helped, this airlift could not meet requirements. Meanwhile relief forces moved toward Kut and fought a number of battles in early 1916. But while they were able to come close to Kut, they could not lift the siege, and suffered 24,000 casualties. A Russian advance through Persia (Iran) reached the Mesopotamian border too late to be of help. On 29 April the garrison of 10,000 surrendered after holding out for 147 days, one of the longest periods on record. This was also the largest number of British troops to surrender to that date, surpassing the 8,000 under Cornwallis at Yorktown, and not exceeded until Singapore fell in 1942. The defeat at Kut was a blow to British pride and prestige. The British lost because they **overextended their communications**, overestimated their logistical capabilities, and used **out-moded tactics** against the **enhanced power of machine guns and magazine loading rifles**, manned by determined troops who were well entrenched.

8. The Mexican Punitive Expedition: 1916

Expeditionary Insights

- ◆ Proper equipment is essential to accomplish the mission.
- ◆ Inadequate training can severely limit operations and may spell disaster.
- ◆ The American military must be prepared to fight anyone, anywhere, anytime.
- ◆ Air operations are dependent on adequate support and logistics.
- ◆ Example of U.S. military in international law-enforcement operations.

Operational History

In 1911 the Mexican government was overthrown and the country descended into civil war that spilled across the border. Twenty-seven cross border raids left nine American soldiers and six civilians dead. In January 1916 forces loyal to Pancho Villa killed eighteen Americans in Mexico, and in March 1916 raided Columbus, NM, killing eight soldiers and eight civilians. President Woodrow Wilson ordered American forces under the command of General John Pershing to pursue and capture Villa in Mexico, and called up the National Guard for battle on the Mexican-American border.

The fledgling U.S. Army air arm sent into action the 1st Aero Squadron consisting of 8 aircraft, 10 pilots, and support personnel equipped with both trucks and motorcycles. This was the **first expedition for American airmen**. It also gave the U.S. Army forces a potentially potent tool in this highly mobile operation in rugged terrain. But the airmen's service was less than distinguished. The underpowered aircraft could not cross the 10,000 to 12,000 foot mountains, could only carry a payload of 265 pounds, and suffered from the desert climate. Cracked propellers was one climate-induced problem. In addition the machines were oversensitive on the controls and lacked instrumentation. There were no communications or navigation aids, guns, or bombs. Not surprisingly, all but the two most experienced pilots considered these aircraft unsafe. **Training was also primitive**, practically non-existent, as only one of the squadron's pilots had flown at night, and he had done it only once! After one month's operations, only two of the eight aircraft were airworthy. Despite great promise, the American airmen could only deliver mail and dispatches in a campaign in which air power might have played a significant, if not decisive role. At the same time the US army was engaged in a guerrilla war in Mexico, Europeans were fighting World War I. The one positive result of this operation was to bring the plight of American army aviation to the attention of the press, public, and decisionmakers.

9. First AEFs: 1995-96

Expeditionary Insights

- ◆ An AEF deployment can enhance host-country/coalition relations.
- ◆ Rotational units were designated as a logical consequence of experience.
- ◆ First sorties can be launched within 24 hours of initial landings.
- ◆ Established infrastructure in the host-country is critical.
- ◆ An AEF deployment can be flexible in the face of unexpected demands on joint-use assets.
- ◆ AEF assets can be interchangeable with other services' expeditionary forces.
- ◆ AEF deployments facilitate both joint and combined exercises.
- ◆ Reach-back was proven to be a valid concept in augmenting deployed forces.

Operational History

The Aerospace Expeditionary Force concept, as foreshadowed by General Merrill McPeak's Composite 366th Wing, was initially enunciated by General John Jumper when he was CENTAF commander and subsequently established by General Mike Ryan as the new organizing concept for the USAF. It was first "field tested" under actual operational conditions in a series of three deployments to the Mid-East in 1995-96.

AEF I deployed to Bahrain from 28 October – 18 December 1995; AEF II to Jordan from 12 April – 28 June 1996; and AEF III to Qatar from 24 June – 20 August 1996. Each left behind equipment to support a future AEF. In order to **maintain ties with host nation armed forces**, and to **lessen family support problems**, CENTAF/Ninth Air Force subsequently assigned three of its component Wings to furnish the core or lead elements for future AEFs destined for those three countries.

These first three modern AEF deployments were instructive both in their similarities and in their differences, though the similarities predominated. All three generated a significant proportion of CENTCOM's required sorties during the periods of their deployments. All three **launched first sorties within 24 hours** after initial landings. All three had **access to well-developed infrastructure** of host allies. AEF I, as the first test of the concept, was more modestly sized and tasked, deploying 18 F-16s, bringing in 576 personnel, and generating 637 sorties. In contrast, AEFs II and III had 30 and 34 fighters, 1150 and 1200 personnel, and 918 and 1323 sorties, respectively.

AEF II demonstrated the **flexibility** of the concept by adjusting to the unanticipated diversion of airlift and the rescheduling/rerouting of air transport to support operations consequent to the fatal crash of Secretary of Commerce Ron Brown's CT-43, as well as humanitarian operations in Liberia. AEF II, by covering the "carrier gap" scheduled between 14 May and 24 June 1996, also demonstrated **interchangeability with another service's expeditionary force** – at least for certain missions. Another virtue of AEF II was the opportunity it offered to **enhance relations and training with a putative coalition ally**, Jordan, which was then anticipating delivery of its own F-16s.

AEF III included four noteworthy initiatives: (1) It further **enhanced combined operational capabilities** by exercising with other Gulf partners, and it also **conducted joint operations** with US Navy elements in the Gulf. (2) It combined in-area assets (12 F-15s already in the Gulf) with another 22 fighters deploying from CONUS. (3) In addition to the aircraft in theater, three **B-52s and three B-1s were on permanent call** in CONUS. (4) Finally, AEF III became the first to stage a Global Power mission when two of its on-call B-52s flew a round-trip mission from Barksdale AFB, Louisiana, dropping 27 Mk-117 bombs on the Udari Weapons Range in Kuwait.

While these first three tests of the contemporary concept of an AEF were rather modest in scope, they were certainly successful in accomplishing the peace enforcement and deterrence missions assigned. Moreover, they were the first cases in a growing AEF experience base that lends confidence and direction to the initiative now under way to implement the CSAF's vision of an Expeditionary Aerospace Force.