

Note from AFA President -- Air Conditioning, Up in the Air

AFA members, Congressional staff members, civic leaders, and DOCA members, this past month one of Headquarters AFA's staff members was without air conditioning at his home. And it was hot ... very hot. We had temperatures over 100 degrees F for about 5 days in a row. For the entire month, almost every day was over 90 degrees. The staff member's experience is similar to what the country faces now ... and may face in spades in the future. Let me describe what happened.

The staff member's air conditioner stopped working. In essence, he had no Air(power). First he called an air conditioning expert to his house to see what was wrong. The expert told him that he needed some parts for the system. The parts would take some time to come in as the system was over 21 years old. And as it turned out, almost no one was making parts anymore for such an old system.

The staff member went to his insurance company to see if they would let him retire the old system and replace it with a newer, more capable one. (Sound familiar?) The insurer (think Congress) decided the system still had some uses, and it would be cheaper and better if they tried to get the parts to fix it.

Meanwhile the AC expert went to the web to try to find parts which might do the job. Lots were found; many from overseas suppliers ... but when the unit was opened and the technical order reviewed, the original manufacturer clearly stated that parts had to be made by either ... the original manufacturer ... or an approved sub-manufacturer. And ... the original manufacturer no longer made parts for the system.

Finally, parts were located ... but, in all it took almost four weeks to get the system operational. True story.

Now think about how the Air Force - dealing with planes, some of which are almost 50 years old - manages with a fleet that **averages** more than the staff member's AC. But there's a difference here. No body died from the heat. The ground forces were not attacked and harassed from the air. Our troops on the ground were supported. ISR was provided. Space assets provided navigation, communications, and intelligence. But we should worry about what might happen in the future when our Air(power) is even older ...

Secondly, an interesting article was published in The American Interest by Dr. Richard Andres. It's a long piece (nine pages on my printer) but worth your read. It covers so many points that AFA supports (and some that we don't) that I won't list them all. Give me some feedback on the piece.

For your consideration.

Mike

Michael M. Dunn  
President/CEO  
Air Force Association



---

<http://www.the-american-interest.com/article.cfm?piece=861>

The American Interest

From the September - October 2010 issue: **Up in the Air Richard B. Andres**

In a September 2007 Capitol Hill speech, Secretary of the Air Force Michael Wynne warned that "the Air Force is going out of business . . . . [A]t some time in the future, [aircraft] will simply rust out, age out, fall out of the sky." Coming from the usually understated political appointee, Wynne's dire assessment amounted to a red cape waved before the Defense Department's civilian leadership and supporting bureaucracy. Tension mounted as Wynne and Air Force Chief of Staff Michael Moseley continued to speak out on this topic, and a few months later, ostensibly for unrelated reasons, Secretary of Defense Robert Gates fired both Wynne and Moseley—the first simultaneous firing of a service secretary and chief of staff in history. Officials in the Office of the Secretary of Defense subsequently asked Air Force leaders not to speak publicly about the state of their service. After several outspoken Air Force generals failed to heed the warning and were asked to retire, the problem disappeared from the public sphere.

The problem itself, however, remains. The average age of the refueler and bomber fleet, which forms the foundation of U.S. air power-projection capability, now exceeds fifty years. Most of the Air Force's fighters were built in the 1970s. Virtually all Air Force aircraft are decades past their planned retirement dates. Technology designed to overcome Vietnam War-era surface-to-air missiles and fighters is becoming obsolete in the face of emerging air-defense capabilities. Air Force bases built half a century ago are poorly placed to meet emerging deterrence missions. Today, a large portion of the Air Force exists only on paper, its aircraft too old to fly in combat but requiring enormous sums to maintain. If current procurement practices continue, the readiness and effectiveness of U.S. airpower will steadily worsen over time, with serious consequences for U.S. national security.

The Air Force's tailspin began well before Wynne's remarks in 2007. It began in the early 1990s, when, as the Cold War drew to a close, Congress sought to wring a peace dividend out of the military budget at the same time that a series of Presidents began to call upon the Air Force far more often than programmers had anticipated. Between 1989 and 2003, the United States went to war five times, and throughout most of this period the Air Force also maintained intense operations in no-fly zones over southern and northern Iraq. With limited budgets, the Air Force ate up its seed corn. It spent its recapitalization budget on current operations, expecting to end this practice when the wars ended. But the wars did not end.

Early this decade, after 9/11, the Air Force's decline accelerated when the Bush Administration adopted its "forward strategy of freedom" approach to the greater Middle East, applied most directly in Afghanistan and Iraq. The idea that U.S. ground forces could drain the proverbial swamp that bred terrorism by occupying enemy states and subsequently engaging in democratizing nation-building projects had the effect of shifting the U.S. military's mission from conventional warfare toward counterinsurgency. As the military's primary mission shifted, policy circles increasingly viewed the Air Force as marginal. With thousands of soldiers and marines dead on foreign soil, sunk costs and still unfulfilled objectives made it increasingly difficult to argue against ground-centric priorities, or for recapitalizing the Air Force and the Navy to deter future conventional wars. As the wars in Iraq and Afghanistan

dragged on, counterinsurgency planners argued that dollars diverted from the Air Force and the Navy to the Army budget would save lives in those theaters. By 2007, even suggesting that the Navy or Air Force should buy new equipment evoked passionate condemnation from many quarters.

By 2008, the Department of Defense had essentially committed itself to the swamp-draining strategy as its guiding compass for long-term defense procurement. After removing the Air Force Secretary and Chief of Staff, it began to shut down Air Force weapons programs. That year it delayed the planned purchase of the new KC-X aerial refueling platform. In 2009, it stopped production of F-22 fighters, cancelled the Next Generation Bomber and called off most other Air Force programs. In a related step, the Commander of Joint Forces Command condemned the heavy use of airpower in the wars of the 1990s and banned, in his command, any reference to Effects Based Operations (the air-intensive approach to joint operations that led to the rapid Coalition victory over Iraq in 1991).

### ***Rethinking Strategy***

As the United States completes its withdrawal from Iraq and contemplates how it will extract its forces from Afghanistan, it must reconsider the state of its sea and air forces in light of its long-term strategic goals. As the world's most powerful state, defense means something different for the United States than it does for other nations. While states usually build militaries to defend or, less frequently these days, to enlarge their territory, the principle purpose of the U.S. military is to defend the global commons and the open international economic order by ensuring peace among the major powers. There is nothing passé about this purpose. When the military might of states like the United States begins to fail, the result is often global instability and conflict. When the Roman legions could no longer support Rome's military obligations, Europe fell into a dark age. When the British navy could no longer balance the ambitions of Europe's major powers at the turn of the 20th century, neither economic interdependence nor the League of Nations could prevent the two world wars that followed. If the U.S. military becomes incapable of supporting its international commitments, it is by no means clear that the current long peace among major powers will endure.

Cracks in America's global power projection capabilities are already visible. Thanks largely to the spread of military technologies the United States introduced and procurement decisions it made more than twenty years ago, the U.S. military has lost capability. In the 1990s, for example, the Navy could confidently send a carrier task force through the Straits of Taiwan; today, a ship that attempted such a feat would risk coming under fire from Chinese anti-ship and anti-aircraft missiles. (Some pessimistic analysts even believe that China could win a war in the Straits.) A few years ago, U.S. carriers controlled the Straits of Hormuz; today, carriers in the Gulf could be the first casualty of a war with Iran. As China, Iran and North Korea increase their stocks of ballistic missiles, existing U.S. Army and Air Force bases will become increasingly vulnerable.

Big-ticket procurement decisions generally play out over a course of two to four decades. If the United States continues on its current trajectory, within that period U.S. conventional deterrence will lose much of its value abroad. The United States will not necessarily become incapable of defending its friends, but the costs and risks of doing so will grow much higher. As this occurs, U.S. deterrent threats meant to protect Taiwan, the Baltic States, Ukraine, Georgia, Israel, South Korea, Australia and Japan will become increasingly unbelievable. If opponents test U.S. resolve, the United States may be faced with the prospect of either reneging on its commitments or fighting ruinous wars. It is important to get the scale of these potential challenges right: While the counterinsurgency wars in Afghanistan and Iraq have cost more than 5,000 U.S. lives over the past decade, a war over any of the countries listed above could well cost that many lives in the first few minutes of combat.

### ***Changing U.S. Military Posture***

Although the U.S.-led international system cannot last forever, the United States can increase its longevity considerably by executing an intelligent shift in its military posture. We need to reverse the Bush Administration's move toward a posture emphasizing the transformation of selective enemies into allies through occupation and the creation of democratic political institutions. The current strategy requires the United States to engage in a relatively low-tech, manpower-intensive form of warfare that pits one of its greatest weaknesses against one of its opponents' greatest strengths. By some calculations, a thousand guerrillas using improvised explosive devices can effectively pin down tens of thousands of state-of-the-art equipped U.S. ground troops.

As was the case during the Vietnam War, the United States has attempted to compensate for its disadvantages by throwing vast sums of money at the problem. Well more than \$1 trillion has been spent on Iraq and Afghanistan to date, some of it on creative stopgap efforts. If this approach had worked well enough that leaders in Iran, North Korea and similar states believed that it could work again, it would have gone some ways toward extending America's ability to deter aggressors and maintain the existing system. Unfortunately, it did not. The United States has not achieved the clear, positive and cost-effective outcomes it sought in either Iraq or Afghanistan. As a result, many international leaders believe the United States will be reluctant to use force again in the future. Ironically, then, the U.S. commitment to this form of warfare has reduced its ability to influence the actions of potential opponents.

As money becomes scarcer and anti-access threats proliferate, the United States must develop a military posture capable of sustaining the American-led international system over a period of many decades. This means finding ways to pit its strengths in technology and reach against its opponents' vulnerabilities. It also means working closely with regional allies to deter specific threats. In a sustainable military posture devoted to this larger strategic goal, the Air Force is likely to play a significantly different role than the one currently envisioned for it by defense programmers.

Since the insurgencies in Iraq and Afghanistan began, the Air Force has mainly used jet aircraft to provide intelligence, surveillance and reconnaissance (ISR), and airstrikes to support U.S. ground forces. This method has been tactically effective: The vast majority of enemy forces killed in Afghanistan, for example, have been silenced by Navy and Air Force bombs called in by ground forces. Unfortunately, the costs in fuel and maintenance for these actions have been prohibitively high, and even tactical success has not translated into strategic success. For the past few years, the Air Force sought a large fleet of remotely piloted aircraft (RPA) that are both better suited to this role and substantially less expensive to operate. This shift of emphasis is wise and should form the basis of the Air Force's approach to supporting counterinsurgency operations against opponents that do not possess air defenses.

More important than shifting platforms, however, is the Air Force's need to develop the capabilities and doctrine that allow it to substitute airpower for U.S. ground forces in counterinsurgency operations. The United States cannot afford to pay the costs in dollars or lives of fielding expeditionary land armies for counterinsurgency missions. It can, however, afford to field air, space and cyber assets in conjunction with allied land forces, and these operations can have decisive results. In Bosnia in 1995, Kosovo in 1999, Afghanistan in 2001 and northern Iraq in 2003, the Navy and Air Force developed tactics on the fly with local militias to destroy much larger conventional armies.

These wars were short for the United States because after major combat operations allied ground forces provided the security foundation for the governments that subsequently emerged. (This approach even helped to stabilize indigenous governments in Afghanistan and northern Iraq, until the United States, with NATO, attempted to improve political, economic and social conditions by sending relatively large land forces into the theater.) This approach could also be used in conjunction with allied conventional forces against the conventional forces of other states. In places like Afghanistan, Iraq, Iran, Syria or North Korea, the ability and willingness to support friendly ground forces constitute a more credible deterrent than the possibility that the United States would deploy its own ground forces.

For the Air Force, a sustainable force posture would also mean changing the way joint forces use its resources in combat. Although current doctrine calls for each of the four services' air forces to be controlled by a single joint Air Combat Commander, this seldom happens in practice since each service wishes to retain as much autonomy as possible. This lack of unity above the battlefield significantly weakens airpower's contribution to the joint fight. A century of experience with air warfare has shown that airpower is most effective when control is centralized under a single commander. The air assets of the four services working together are vastly more capable than four U.S. air forces acting independently.

Modern computer and communications technologies are further increasing the value of centralized control. One of the most important air-related innovations of the last few decades is the Air Force's Coalition Air Operations Center (CAOC). CAOCs are command centers that integrate the use of air, space and cyber assets in real time. These centers constitute one of the most impressive military technologies in the U.S. arsenal and vastly magnify the capabilities of assets under their control. Increasingly, the Navy has begun to utilize these assets, and the effects the two services have achieved by working together during recent wars have been impressive. This trend should be encouraged through interservice personnel swaps and by increasing the CAOC's ability to integrate with ships and other Navy assets. The new Navy-Air Force AirSea Battle Doctrine is another important step toward better integrating the two services. These and other integrative moves have the potential to substitute for hundreds of billions of dollars worth of new physical assets.

The United States sorely needs those savings. The service plans to continue to rely on legacy Cold War F-15 Eagles and F-16 Falcons supplemented by a small number of fifth-generation F-22 Raptors and, potentially, F-35 Joint Strike Fighters, but this strategy is fiscally unsustainable. Most Eagles and Falcons are already decades past their planned retirement dates, have low mission-capable rates and are expensive to maintain. Even worse, emerging land- and air-based defenses are likely to render them incapable of participating in conventional conflict. Joint Strike Fighters are more capable on the modern battlefield, but they rely too heavily on stealth at the expense of avionics. The United States plans to build F-35s over the next three decades. Given the rate at which radars and computers in the hands of potential adversaries are improving, those F-35s might not remain effective deterrents for much more than ten or twenty years.

In light of these limitations, the Air Force needs to reopen the F-22 line and fund research into new, possibly hypersonic and unmanned fighters with upgradable engines and computer development paths that can absorb changes in information technology. Today, the F-35 is approaching the unit cost of the F-22; the F-22 is coming off the production line with "zero defects", something that is unlikely to be the case for the F-35 for many years to come. More importantly, the F-22's avionics makes it many times more capable than the F-35, even at the F-35's core missions. In the evolutionary contest between expeditionary airpower and regional air defenses, this capability will almost certainly allow it to remain an effective deterrent for decades longer than the F-35. Beyond the F-22, funding research on a new 6th-generation fighter is a hedge against an unknown future. The Air Force should pay the bill for these new fighters by standing down legacy fighters as new platforms come online.

The Air Force's bomber posture is also ill-suited to our security and budgetary future. With a large fleet of B-52 and B-1 bombers and only a tiny contingent of stealthy B-2s, the Air Force appears to be moving toward a vision of bombers as trucks for ferrying bombs to undefended targets. This makes sense only when your opponent can't shoot back. Bombers that can survive modern air defenses are each the equivalent of scores of strike fighters. Beyond their simple bomb-carrying capacity, independence from regional bases and ability to loiter, their ability to carry standoff munitions and function as sensor and command and control platforms makes them a cost-effective way to project power both on land and at sea.

In light of these capabilities, the Air Force should make its new long-range ISR/strike aircraft (formerly known as the Next Generation Bomber) one of its highest priorities. It should incorporate in this new platform state-of-the-art technologies capable of staying ahead of emerging anti-access capabilities. In light of advances in artificial intelligence and growing cyber threats to remotely piloted aircraft, the Air Force should make the first versions of this new platform manned but hold open the option of making future versions unmanned. As new aircraft become available their cost can be offset by retiring legacy bombers.

Beyond combat aircraft, the Air Force owns a portfolio of assets that form the base of power-projection capability for all four services. Many of these assets desperately need to be replaced. The most serious problem is the 1950s-era fleet of KC-135 tankers. These tankers are the analog of the Roman Empire's roads or the 19th-century British navy's coaling stations. Replacing them has been the Air Force's top priority for many years. The Air Force's space vehicles are also rapidly aging. Its global positioning system satellites in particular need to be replaced. The Air Force also owns the cyber infrastructure that carries 90 percent of communications for America's armed services. In future warfare, protecting this infrastructure will be as important as protecting physical structures, and this is likely to require substantial investments to offset opponents' growing outlays for offensive cyber weapons.

A sustainable posture will also require the Air Force to change its basing strategy. The current, Cold-War-era basing system focuses on Europe. As a result, the Air Force is not well postured to meet emerging deterrence

missions in the PACOM and CENTCOM regions. In the Pacific, the Air Force relies mainly on its bases in Guam and Japan. In a war with China, Guam would be both too far away and too vulnerable to be reliable. Bases in Japan would be less vulnerable, but Japan might not allow the United States to fly strike missions from its territory. (This alliance could potentially be strengthened, and the odds of Japan allowing the United States to use its bases for combat operations could be increased by selling it F-22s.) Together these facts significantly decrease the credibility of U.S. deterrent threats. Similarly, in the CENTCOM region the Air Force relies heavily on the British base at Diego Garcia and bases in various Gulf States. These bases are vulnerable in both military and political terms. Aerial tankers' dependence on them makes them a critical joint vulnerability. Thus the Air Force must better defend its existing bases and, more importantly, procure alternatives—both of which will exact significant political and economic costs. Some of these costs could be defrayed by closing obsolete bases in the United States and Europe.

All these actions, taken together, would pull the Air Force out of its current nosedive and solve some of the most serious long-term security challenges confronting the United States. The resulting Air Force would be smaller but also leaner and better tailored to helping the United States meet its commitments abroad and preserve the international system on which its future depends.

It has been more than three years since Michael Wynne's warning about the future of the Air Force and his unceremonious exit from government employment. Shortly after Wynne's speech, he confided in a private interview that he thought the issue important enough to risk his job over it. This attitude is unusual for a political appointee but not for Air Force officers. The Air Force traces its founding to First World War aviator Billy Mitchell, who accepted court-martial rather than give in to traditional views about the utility of airpower. In 1947, Congress created an independent Air Force specifically because it wanted an organization that would counter entrenched bureaucratic interests and advocate for new airpower technologies that would allow the nation to defend the homeland and maintain peace through power. Air Force icons like Curtis Lemay and John Warden took up this gauntlet, developing ways to use air and space power to deter and defeat opponents.

What the current Air Force needs more than planes or bases are good ideas and bold leadership. The strategy and procurement decisions that our defense leaders are making today are unsustainable, both financially and strategically. It will take leaders with guts to make the unpopular choices that will carry us off this path. Whether the Air Force can play a role in halting and reversing this decline remains to be seen. That will ultimately depend on its ability to produce future Mitchells, Lemays, Wardens, Wynnes and Moseleys.

To comment on this, visit [AFABlog](#). (Google account is required)