

FROM THE GROUND UP by Katherine McIntire Peters, *Government Executive Magazine*

The Air Force confronts a future in which ground-based controllers and unmanned aircraft are ascendant, while the number of new fighter planes is falling.

August 1, 2005 – Washington, DC - If a picture is worth a thousand words, then photographs of U.S. Special Forces combat controllers on horseback in Afghanistan in late 2001 speaks volumes.

In one of those photographs, Combat Controller, TSgt Calvin Markham is shown on horseback along with US Army and Afghan Special Forces. (File Photo)



Like members of some ancient cavalry, they wear the tribal garb of their Afghan allies and sit astride horses with wooden saddles. But the force they wield is as modern as anything in the U.S. arsenal. With satellite navigation systems and radios, laser goggles and laptop computers, they form the indispensable link between U.S. ground troops and the aircraft that support them.

When asked about the images at a Pentagon press conference early in the war, Defense Secretary Donald Rumsfeld said, "its all part of our transformation plan." Most people thought he was joking, but the airmen responsible for calling in close air support for ground troops against the Taliban in 2001, and later in Iraq against Saddam Hussein, embody a remarkable - and recent - leap in military capability. Space-based communications technology and precision-guided munitions combine to tremendous effect on the battlefield.

When Air Force Chief of Staff Gen. John P. Jumper talks to audiences about the evolving nature of air power and its role in the war on terror, he often refers to Tech. Sgt. Calvin Markham, a member of the first Special Forces team sent to Afghanistan after the Sept. 11 terrorist attacks. Markham's job was to guide bomb-laden aircraft to their targets in the war to oust the ruling Taliban from power.



In the photo at right, TSgt Calvin Markham is shown (2nd from right) after an awards ceremony where he received the Silver Star for his actions in Afghanistan. (File Photo)

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Pentagon planners calculated that the mission would take about six months. It took less than one month, due in large measure to the extraordinary skills of airmen like Markham and a handful of other combat controllers on the ground. According to the citation that accompanied the Silver Star he was awarded for his actions in Afghanistan, one especially lethal B-52 bomber strike he orchestrated involved multiple targets within 600 yards of friendly forces. That strike, which destroyed 450 vehicles and more than 3,500 troops without harming coalition forces, was a decisive factor in the liberation of Kabul. As he recounted the episode to *Air Force Times* in March 2003, Markham said, "I guess I was having a good couple of weeks."

In a speech this past March to a conference of the Veterans of Foreign Wars, Jumper recounted Markham's actions: "Just think about it. This is a B-52 built by Gen. Curtis LeMay in 1957 to go drop nuclear weapons in the heart of the old Soviet Union. You've got the horse that I think we stopped riding in the cavalry in about 1932. You've got a laser range finder and you've got satellite communications. You're putting all this together shooting up to a satellite-guided bomb. These kids are putting this stuff together, the old and the new, to do what it takes to get the job done."

While the Air Force is using old aircraft and weapons in unexpected ways, it also is coming to terms with new technologies that could transform operations. The best example is the service's use of unmanned aerial vehicles for surveillance and combat. For years, officials in the Army and Navy, which manage their own UAV programs, complained that the Air Force, whose leadership is dominated by pilots, hasn't pursued UAV technologies aggressively enough.

Proponents within the Air Force seem to agree. It is the only service that requires UAV operators to be rated pilots and navigators with Federal Aviation Administration commercial instrument ratings - a requirement that makes it difficult to staff UAV programs and hurts morale. In the Spring 2005 issue of *Air and Space Power Journal*, Maj. James C. Hoffman, chief of UAV Reconnaissance Operations with the 609th Combat Operations Squadron at Shaw Air Force Base, S.C., and Charles Tustin Kamps, a professor of war gaming at Air Command and Staff College, Maxwell Air Force Base, Ala., propose the Air Force create a separate, formal career path for UAV operators and redefine their qualifications. Through such changes, "the Air Force would obtain UAV volunteers for the right reasons," they write.

Reconciling such issues presents a growing problem for the Air Force, which increasingly is burdened with competing demands. When Gen. T. Michael "Buzz" Moseley takes the helm as the service's new chief of staff later this summer after Jumper retires, the former F-15 fighter pilot will inherit a monumental challenge: Recapitalize an aging aircraft fleet that's plagued by reliability problems, manage a \$3.7 billion budget shortfall, restore credibility to contracting operations in the wake of the service's discredited bid to lease tanker aircraft from Boeing Co., mend badly frayed relations with the Air National Guard over base realignment and closure plans, and return luster to an Air Force Academy seriously marred by a sexual assault scandal and charges of religious intolerance. If that isn't enough, the Air Force, along with the other services, is engaged in a potentially far-reaching realignment of plans in the top-to-bottom review of military capability known as the Quadrennial Defense Review. That report, which won't be completed until early next year, likely will dictate Air Force spending priorities over the next several years.

HARD CHOICES

Like the Army and the Navy, the Air Force is grappling with its role in a world that has changed dramatically during the past 15 years. While all three services have significantly reduced personnel levels since 1990 (there were 650,000 airmen on active duty then; today, there are about 360,000), the war on terrorism is forcing new priorities on a defense establishment more suited to face off against a peer than a shadowy movement not even sponsored by a government. When the Soviet Union disintegrated under the weight of its failed ideology in the late 1980s, U.S. military leaders looked for some future opponent to challenge the nation's superpower status, focusing mainly on an ascendant China. While interventions in Panama, Haiti, Somalia and the Balkans pointed to the need for changes in defense operations throughout the 1990s, until the United States sought to uproot the al Qaeda terrorist network in Afghanistan and then topple the regime of Saddam Hussein in Iraq, wholesale military reform hadn't been pursued as a matter of urgency.

That is changing. Defense Secretary Donald Rumsfeld is forcing hard choices on each of the services. The Army has canceled two cherished weapons programs in the past three years - the Comanche helicopter program and the Crusader artillery system - not because they weren't shaping up as advertised, but because the Army couldn't afford them. Likewise, the Navy is planning to cut an aircraft carrier, and the Navy and Marine Corps have combined tactical air operations to save billions of dollars.

The Air Force has taken cuts, too. It has reduced the number of bombers in its inventory and is planning to slice the number of fighter aircraft by 25 percent in the coming years, according to Air Force planning documents. Those reductions involve retiring old aircraft as new ones come on line. But current plans for acquiring new fighters may not survive the QDR.

Already, the Bush administration has curtailed plans to buy new fighters. The 2006 Air Force budget request would fund only 180 of the 380 new F/A-22 Raptor fighter aircraft the service requested. The F/A-22, conceived in the waning days of the Cold War, is far more capable than any fighter currently in service, but it is exceedingly expensive. The entire program, even with the reduced purchase, is projected to cost about \$64 billion according to the nonpartisan Center for Strategic and Budgetary Assessments in Washington. The [F-22](#) originally was designed as an air-to-air fighter - think World War II dogfights with modern stealth aircraft. But the Air Force has expanded the requirements to include air-to-ground bombing and intelligence gathering, which the Government Accountability Office estimates would add \$11 billion to the program during the next 15 years.

The Air Force initially planned to buy about 750 F/A-22s (the "A" was added to the plane's designation to denote the air-to-ground assault capabilities), but by last year, scaled back to 380 aircraft, a number the Air Force maintains is necessary to replace between 800 and 900 older aircraft. Earlier this year, the Bush administration almost halved the purchase to 180. Jumper told Senate appropriators in April that he hopes the cuts will be restored. Privately, Air Force officials express fear that the QDR could further reduce the purchase.

Since 1990, the service has retired some of its oldest planes and restructured into 10 "air expeditionary force" organizations trained and equipped to handle contingency operations worldwide. The reorganization was intended to make the Air Force more responsive, as well as to spread the burden of deployments across the force and make them more predictable. It has been largely successful, although Air Force officials say they never predicted the current level of

operations. Eight "AEF packages," as Air Force leaders refer to the organizations, were deployed for the initial phase of the 2003 invasion of Iraq. The equivalent of four is operating now.

The demands on the Air Force resulting from ongoing operations in Iraq and elsewhere, while not nearly as severe as those on the Army or the Marine Corps, have been significant. On a typical day, Air Force pilots fly dozens of strike missions against insurgents, ferry hundreds of tons of materiel, transport thousands of troops, and conduct aerial and space surveillance and reconnaissance missions. In addition, about 2,500 airmen are serving on the ground, supporting overstretched soldiers and Marines by driving trucks, guarding prisoners, interrogating detainees and performing other combat support duties.

All this activity means that equipment is wearing out faster, requiring more frequent maintenance, and driving up operation and maintenance costs. Partway through fiscal 2005, Air Force leaders found a \$3 billion shortfall in the operation and maintenance account, as well as a \$700 million shortfall in the personnel account. To compensate, the Air Force has trimmed training programs, including pilot flying hours, postponed upgrades of some equipment and curtailed nonessential programs, such as those intended to improve the quality of life for service members and their families. In addition, Air Force leaders plan to seek congressional approval to reprogram funds among budget accounts later this year.

THE OLDEST FLEET

"The Air Force's No. 1 challenge is recapitalizing our aging systems," Air Force acting Secretary Michael L. Dominguez told the Senate Committee on Appropriations in April. "Addressing this long-term recapitalization problem is made all the more demanding by the huge shortfalls we face this year in our personnel and operations accounts."

The Air Force has about 6,100 planes in its inventory, but about one-third are grounded or operate under flight restrictions. The fleet, whose planes are more than 23 years old on average, is the oldest in Air Force history. Many transport aircraft and aerial refueling tankers are more than 40 years old.

The Bush administration requested \$420 billion in Defense funding in 2006, \$55 billion of which would go into Air Force procurement and research and development. While that figure dwarfs the budgets of most federal agencies, it is not enough to sustain Air Force modernization programs over time, and few people expect that number to go up substantially, if at all, in coming years. The cost of the war in Iraq is rising. The overall federal budget outlook is grim. Tax cuts, a costly Medicare prescription drug program, and substantial spending increases on defense and homeland security since 2002, have dimmed prospects for a reversal of fortune for Air Force recapitalization.

Steven M. Kosiak, an analyst at the Center for Strategic and Budgetary Assessments, says the Air Force faces tough challenges. "air power was very effective in the initial, conventional phases of Iraq and Afghanistan. But clearly it is not your primary tool in an insurgency," he says. More urgent than the need for new fighters is the demand for new aerial refuelers, airlift and long-range bombers. "The concern is where they're putting their money," he says.

Barry Watts, a former Air Force fighter pilot and now an analyst at the center, recently combed through Air Force budget documents dating back to 1999 and calculated that the service invested 20 times more money in short-range fighter aircraft than in long-range bomber aircraft during that period. The Air Force has no current plan to invest in a new bomber, despite the fact that the bomber fleet is much smaller and older than the fighter fleet.

At a forum on the future of air power sponsored by the Washington-based American Enterprise Institute for Public Policy Research earlier this year, Watts said the focus on short-range aircraft

is dangerously short-sighted. Bombers, which can fly across continents and carry huge payloads, provide the United States with enormous strategic leverage. "I just don't get the sense that the Air Force is really hedging against the end of our unipolar moment, looking at failed nuclear states or loose nukes, or thinking very clearly about trying to increase our advantage in the long-range strike area," he said. "You could view this as a national capability that's in the hands of a single service, which is increasingly dominated by fighter pilots."

DISCREDITED DEALS

Certainly budget pressures and the desire to safeguard funding for the F/A-22 were significant factors in the service's failed bid to lease tanker aircraft from Boeing. The plan, championed by members of Congress, senior Air Force leaders and procurement officials at the Defense Department, unraveled under an investigation by the Senate Committee on Armed Services led by Sen. John McCain, R-Ariz., who heads the Airland Subcommittee. The \$14 billion deal is considered the worst procurement scandal in decades and landed Darleen Druyun, the Air Force's former top contract negotiator and later Boeing executive, in jail along with Boeing's former executive vice president and chief financial officer, Michael Sears.

A withering investigative report by Defense Inspector General Joseph E. Schmitz released in June makes clear that Air Force officials were eager to lease the plane, because such an arrangement would require substantially less upfront funding than a conventional procurement deal (OIG-2004-171). Once the plane went into production, Defense and Air Force leaders concluded, Congress would consider it a "must pay" bill and continue funding for the program. "Three years from now, when the first of these planes is ready to go in service and the permanent financing is being solicited, I doubt that anyone will remember [what] the acquisition price in 2002 was," a government analyst noted in a May 12, 2003, e-mail forwarded to Maj. Gen. William W. "Wayne" Hodges, a senior Air Force acquisition official.

As a result of the discredited leasing deal, several top Air Force and Defense officials have resigned, and the Defense Department has taken over administration of key Air Force acquisition programs. In addition, Moseley, now Jumper's vice chief of staff, was grilled by senators concerned about his role in the deal at his confirmation hearing June 29. Moseley has since been confirmed by the full Senate and is expected to assume leadership of the Air Force in late August or early September.

The tanker deal isn't the only one in which the Air Force has resorted to questionable procurement methods. Defense IG Schmitz testified in April that the service had incorrectly used a commercial acquisition strategy to buy C-130J airlift planes from Lockheed Martin. Not only was the strategy unjustifiable (there was no commercial market for the aircraft), but the aircraft purchased under the \$7.5 billion program did not meet Air Force requirements, and by using the Federal Acquisition Regulation Part 12 for acquiring commercially available items, the Air Force had limited oversight authority and exempted Lockheed Martin Corp. from providing cost data. According to McCain, the price for the aircraft escalated from \$33 million per plane in 1995 to \$67 million in 2004.

The Air Force has not adequately mapped out an affordable long-term modernization program, says Kosiak, especially for its bombers, tankers and lift aircraft. At his confirmation hearing, Moseley said he is awaiting the results of several studies before he settles on a long-term plan for recapitalizing tankers and airlift aircraft.

The Air Force also is developing a "mission roadmap," Moseley said, "which will provide a force that fills the nation's needs and enables capabilities across the full spectrum of joint war fighting requirements."

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This is an excerpt from
CCT – The Eye of the Storm Epilogue
by
The Honorable James G. Roche
20th Secretary of the U.S. Air Force
CCA Honorary Life Member #4

Why my interest? A number of years before I became the Secretary, during a visit to Israel, I had had a lengthy discussion with a retired Israeli Air Force general who set up a small “think tank” which he named “Longbow.” His thesis was that, like the British at Agincourt, we would be well advised to devote R&D funds to make the individual ground troop (of any variety) as militarily powerful as possible in combat. He would need sensors and weapons and other systems to exploit the remarkable brain that a free man could bring to the fight. Then, the duty of commanders was to devise integrating technologies and systems which permitted these superbly equipped and trained fighting men to operate in concert as a highly integrated team. His belief was that such fighting teams would be incredibly effective in combat.

“At Agincourt many centuries ago, noblemen and peasants alike witnessed the might of a small group of men who brought death and destruction from above against enemy foot soldiers and armored knights. These dedicated and well-trained men with their Longbows were the key to Henry V’s defeat of the French that day, even though he was greatly outnumbered.”



At the Battle of Agincourt in 1415, legions of longbow warriors were positioned at long-ranges from the site of the battle. From their position they rained arrows down onto enemy concentrations.

“Air Force Special Tactics Combat Controllers are today’s Longbow fighters. Individually, they are specially selected, specially trained, and, in support of special operations, almost daily bring American airpower to bear on our nation’s enemies. Indeed, they are very remarkable warriors, and this book will help many understand why so many of us hold our Combat Controllers in such incredibly high regard.”

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I was convinced that he was right, and once I understood the remarkable talent contained in Special Tactics, I recognized that there were such teams in our Air Force. The question, then, was how to make them even better. I did my best to bring my belief to anyone in the leadership of the US Air Force who would listen, and in Generals John Jumper and Paul Hester I found kindred spirits. My determination that airmen like Alan Yoshida should have the very best in technology to match their superlative training and culture drove me, as did my heart-wrenching duty to join John Jumper in presenting two Air Force Crosses to the widows of a Combat Controller and a Special Tactics Pararescueman.

*Note: Illustrations added by Gene Adcock, CMSgt, USAF (CCT) Retired; author CCT - **The Eye of the Storm**.*